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OCTOBER 1956

A Great New Novel



THE STARS MY DESTINATION



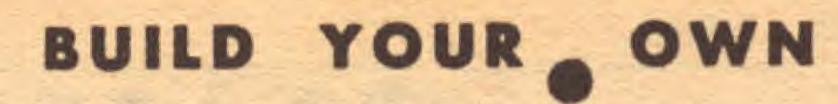
ALFRED BESTER

Author of the award-winning

THE DEMOLISHED MAN

OTHER STORIES





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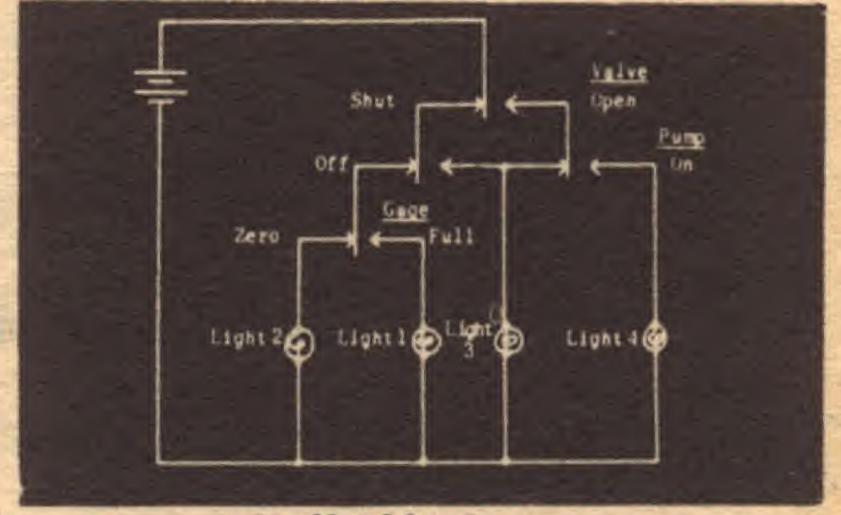
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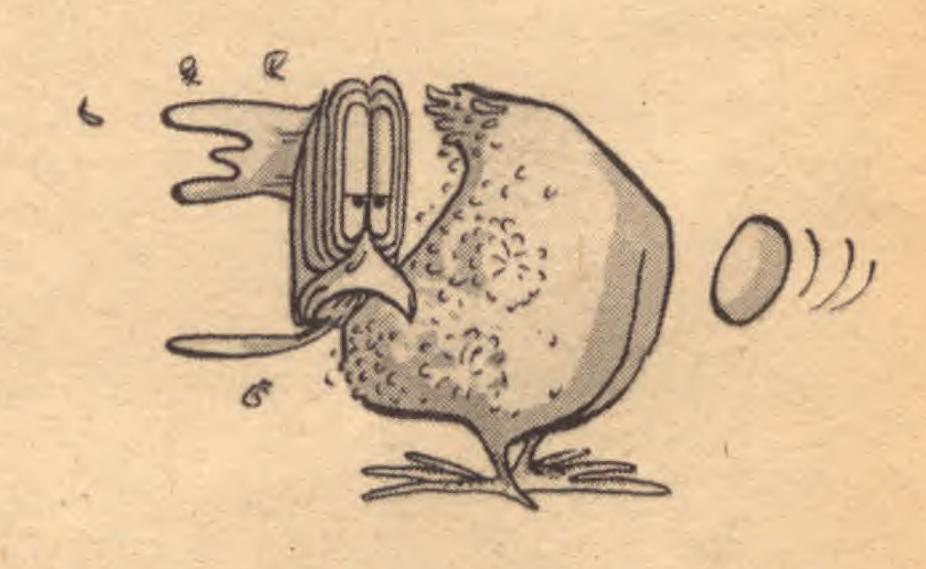
Why, Back Home...

WHEN Man has colonized the far worlds, a prime import will be outrageous whoppers about how this or that those worlds are. Like these.

Arid planets: Notice in the Deneb Gazette: "George Smith hereby withdraws his candidacy for treasurer of Maricopa County. It has rained enough for Mr. Smith to return to farming." That was a 10-inch rain—the drops were 10 inches apart. Wolf IV is much drier; the postmasters there have to rivet the stamps to letters. On Dehyd, the water is wet on only one side. One Dehyder who operates a ferry hauls water all year just to keep his boat running.

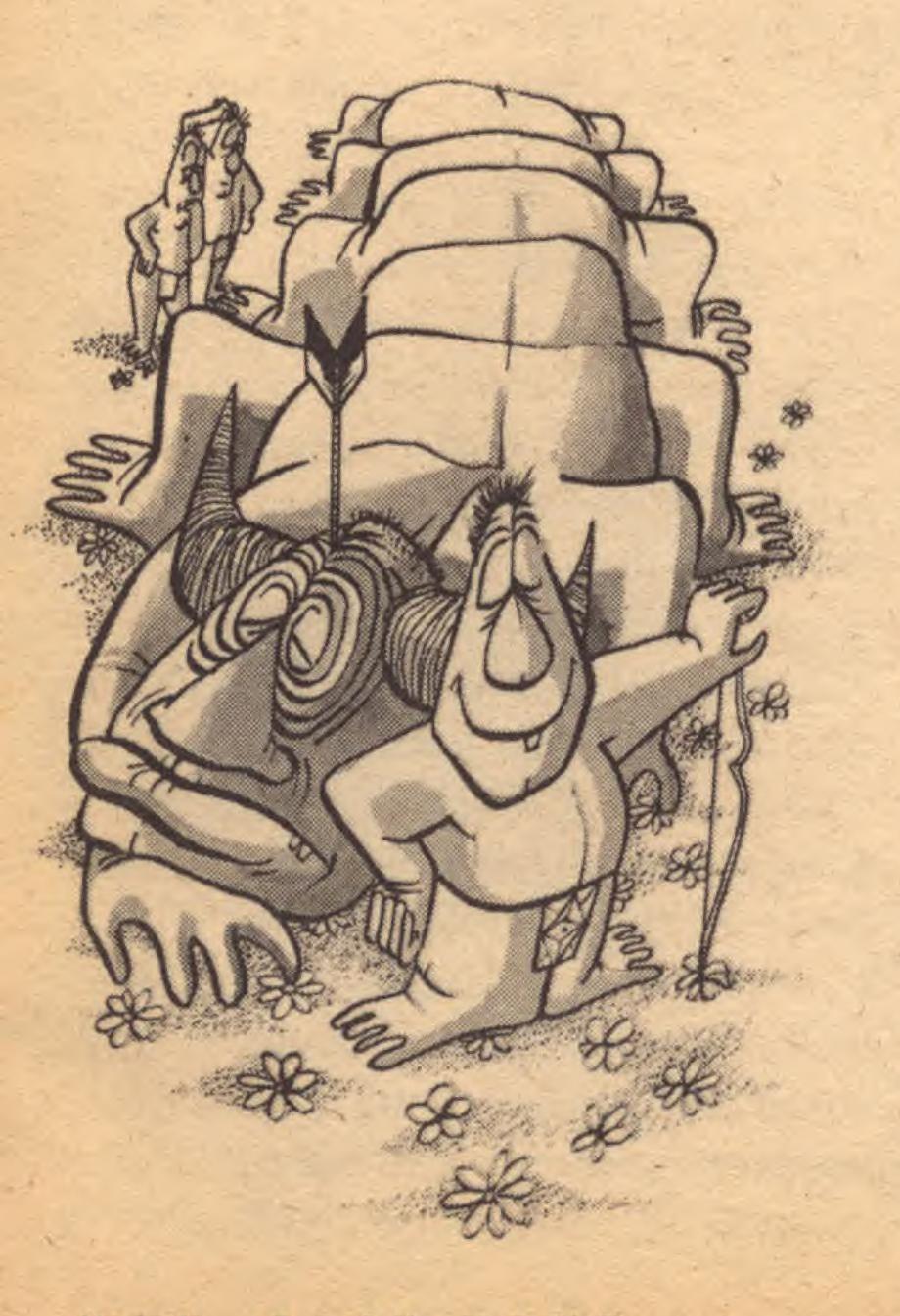
Cold planets: A Brrer was asked if Brr is as cold as people say. "We do have very short summers," he admitted. "Summer last year was on a Tuesday." On Icicle, a sheep raiser claimed his sheep, jumping from one hill to another, got stuck in the frozen air and hung there like clouds. "What about the law of gravity?" he was asked. "That was frozen solid, too," he explained. The fish on Chill grow inch-long fur to keep them warm through the winter.

Windy planets: The kids on Blast make kites from iron window grills with log chains for tails. One Howl hen got herself caught in a blow and was turned around the wrong way; before she could get herself straightened out, she had laid the same egg five times. A farmer on New America planted his wheat in Kansas, fertilized it in Colorado, harrowed it in Utah, weeded it in Nevada and harvested it right back home.



Healthful planets: Livelong started a cemetery, but they had to import a corpse from Dehyd. Old people on Tenscore have to go to other planets to die. "Is this place healthy?" a tourist asked a Vegan. "Sure is," said the Vegan. "Why, when I first came to Vega, I couldn't speak a single word, was absolutely hairless, had to be lifted from my bed and couldn't walk two steps." "Wonderful!" cried the tourist. "And how long have you been on Vega?" "I was born here," the Vegan said.

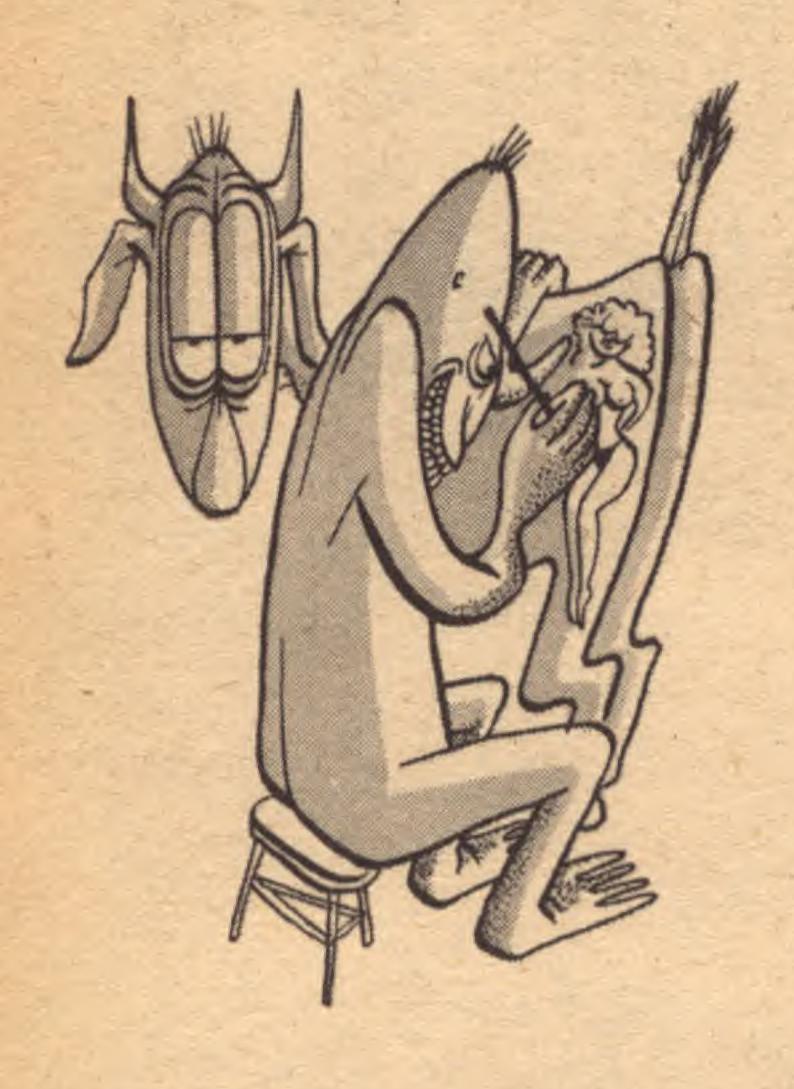
Poor planets: A rancher on Poverty was asked how much he got for his herd of ziggls. "Not as much as I figured," he said. "But then I never thought I would." They tried raising cattle on Slum, but the steers were so thin, the men could brand them three at a time by putting carbon paper between them. On Borrow, where rationing is standard, a farmer reported having several hundred pounds of meat in his freezer and got an official letter asking how come. He wrote back: "It was necessary for me to kill the whole animal at once."





Rich planets: "The reason you Moguls boast so much," a Borrower grumbled, "is you have an inferiority complex." "In that case," the Mogul replied, "it's the biggest inferiority complex in the

Galaxy." Brrer visitor in Colossal bookstore: "I'd like a small map of Colossus." Indignant bookseller: "Madam, there is no such thing as a small map of Colossus."



After uranium was discovered on Aldebaran, the Aldebarans quit branding their goats and took them to town to be engraved. Spacegram from new circus press agent: "What have we got here on Plenty, absolutely the biggest midgets in the Universe or absolutely the littlest?"

High-living planets: "Folks on Blotto sure are friendly," reported a Vegan. "They talk to you right on the street, invite you to dinner, take you up to their hotel room and buy you drinks." "Did all that happen to you?" he was asked in awe. "No," he said, "my sister." Demanded the strict Slapdash father, "What are your intentions toward my daughter—honorable or dishonorable?" Said the suitor, "You mean I've got a choice?" A Ripsnorter put a gun into a stranger's ribs and ordered him to drink from his jug. The stranger strangled, "My gosh, that's horrible stuff!" "Ain't it?" agreed the Ripsnorter. "Now you hold the gun on me while I take a gulp."

Game planets: To kill an Altair proj, you have to aim fast, shoot faster, and whistle just as you shoot; the proj stops a moment to see who whistled, which allows the bullet to catch up with him. A fish caught on Tackle was so big, a snapshot of it weighed seven pounds.

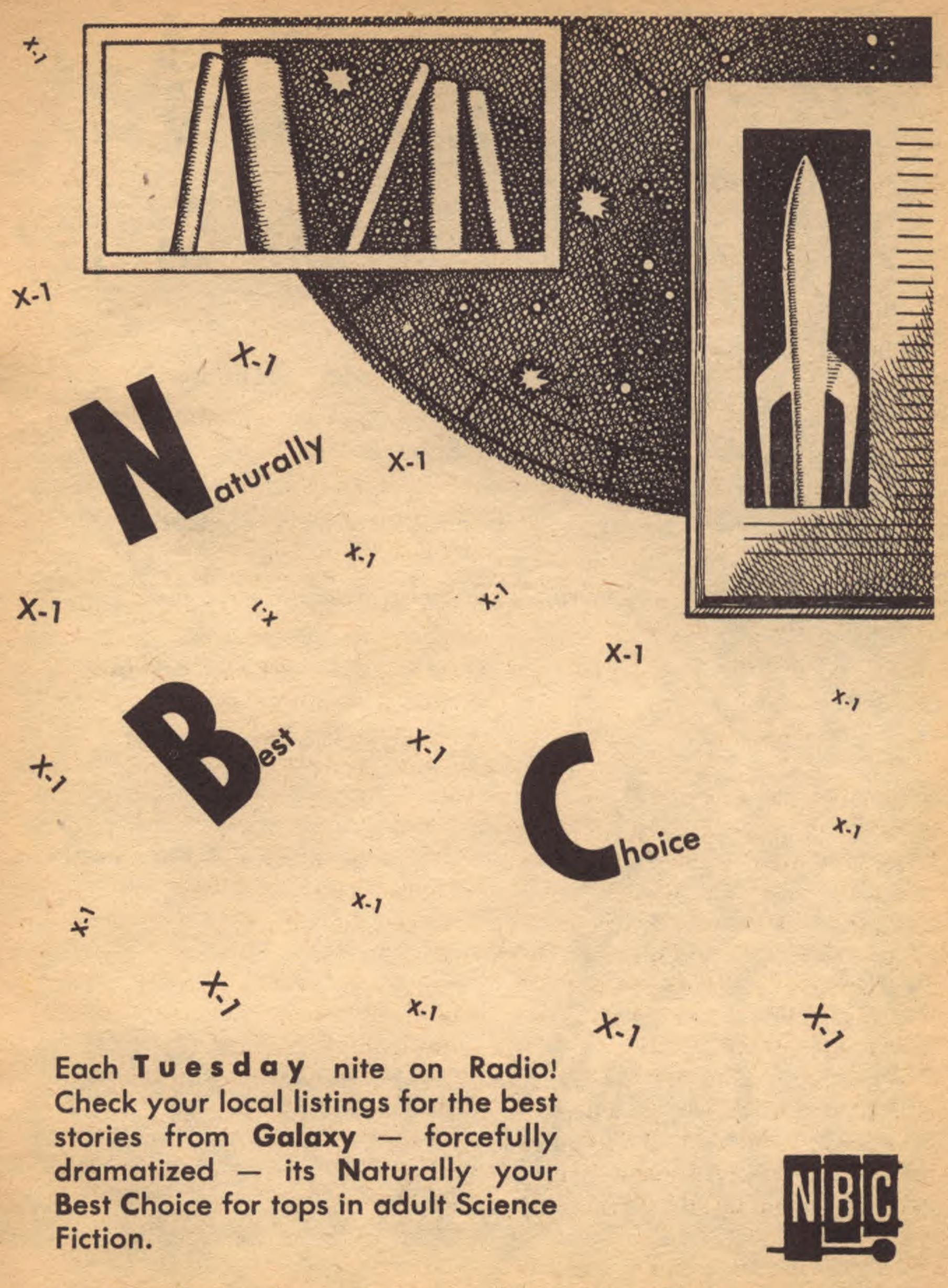
Craggy worlds: Sign atop mountain road on Dizzy: Resume breathing.

Flat worlds: "Monorail's due in an hour," said the Planer. "But I can't see her yet, so she must be late."

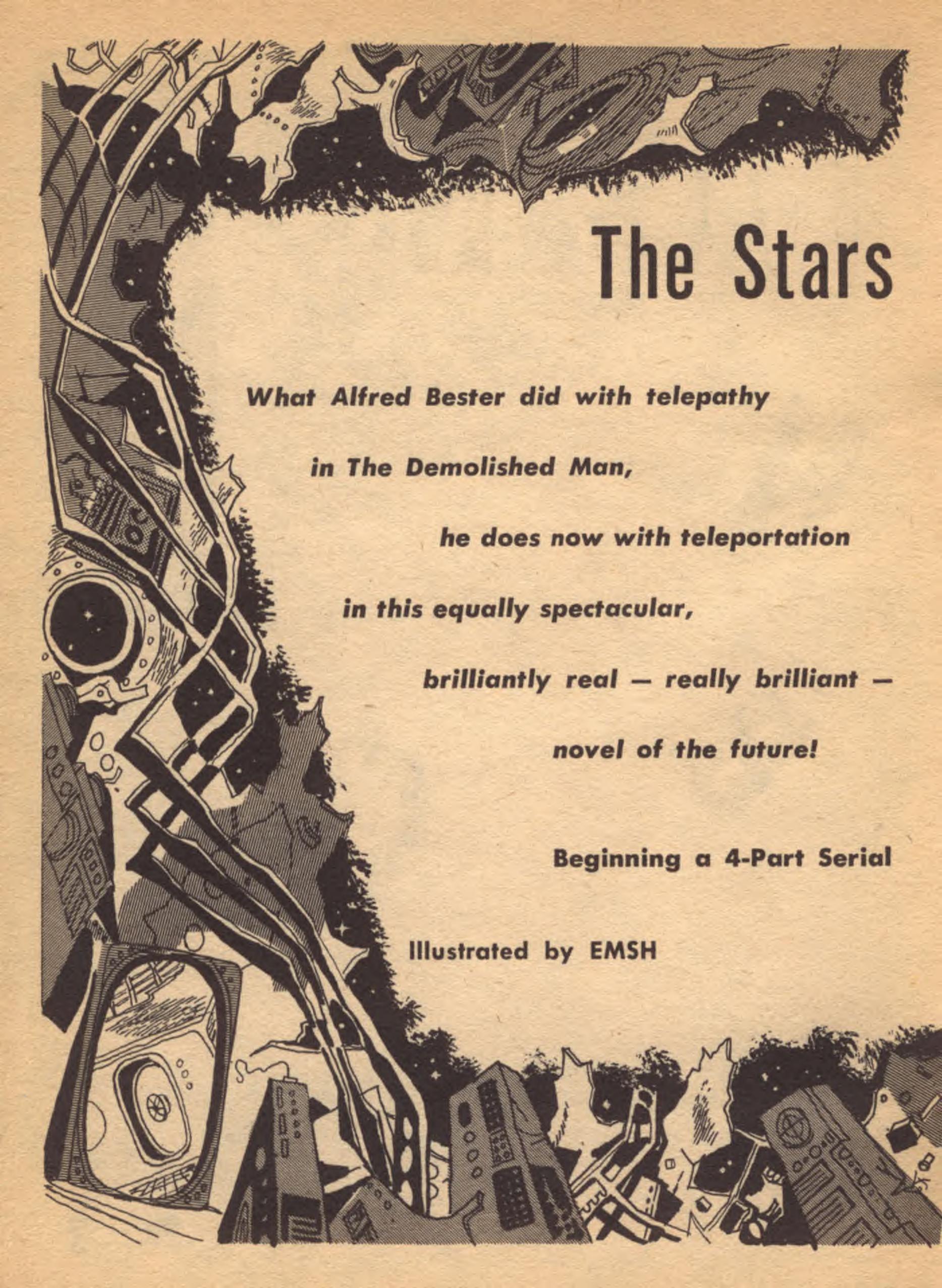
Some of these tall tales may sound new, but each one here came from The Wild West Joke Book by Oren Arnold (Frederick Fell, \$2.95), who says, "It isn't necessary to originate a new joke.
... All you have to do is tell them somewhere else."

Other planets, for instance?

—H. L. GOLD



X-1=The choice from Galaxy, adapted by the tops at N. B. C.



My Destination by ALFRED BESTER

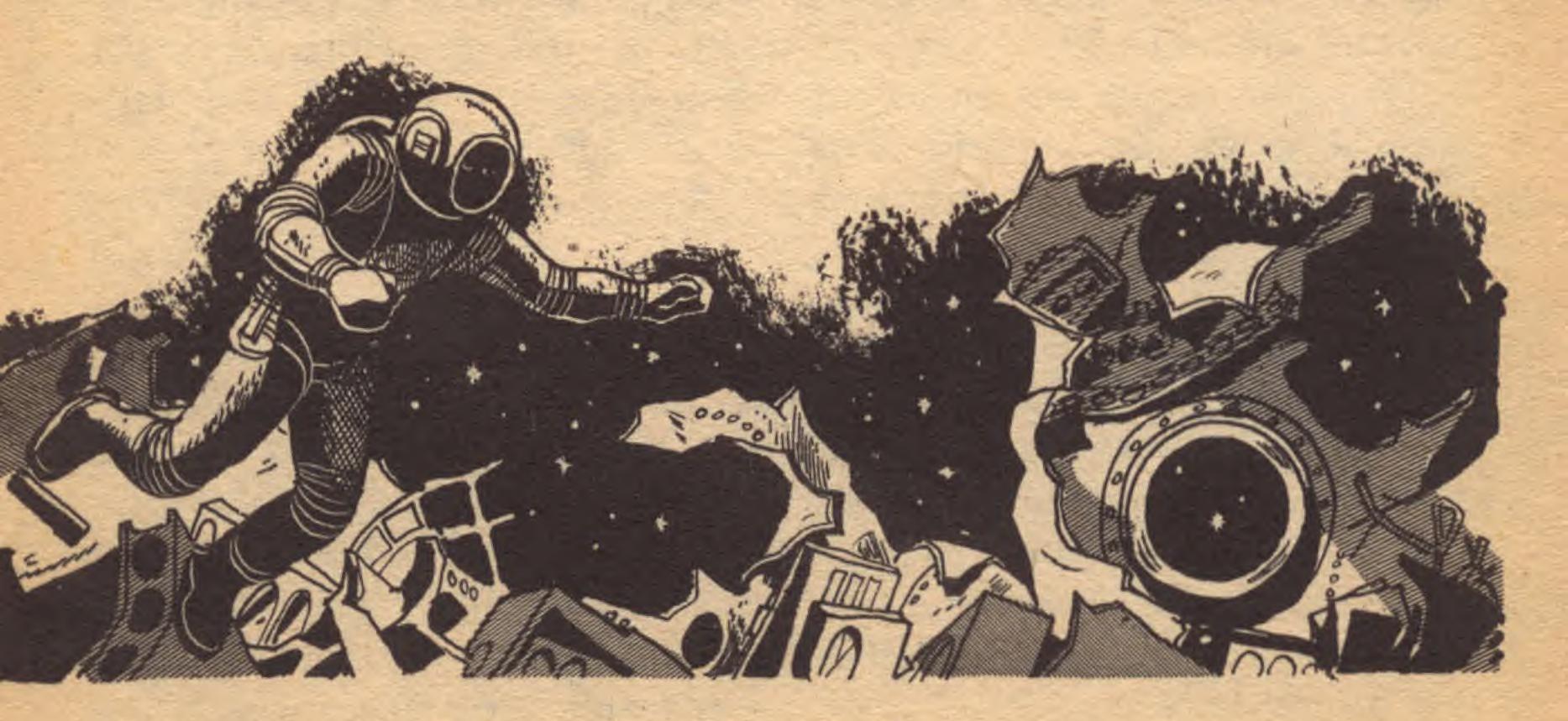
Tiger! Tiger! burning bright
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?
— Blake

PROLOGUE

HIS was a Golden Age, a time of high adventure, rich living and hard dying ... but nobody thought so. This was a future of fortune and theft, pillage and rapine, culture and vice ... but nobody admitted it.

This was an era of extremes, a fascinating century of freaks . . . but nobody loved it.

All the habitable worlds of the Solar System were occupied. Three planets and eight satellites and eleven million millions



of people swarmed in one of the most exciting ages ever known, yet minds still yearned for other times, as always. The Solar System seethed with activity... fighting, feeding and breeding, learning the new technologies that spewed forth almost before the old had been mastered, girding itself for the first exploration of the far-distant stars in deep space; but —

"Where are the new frontiers?"
the Romantics cried, unaware
that the frontier of the mind had
opened in a laboratory on Callisto
at the turn of the 24th century.
A researcher named Jaunte set
fire to his bench and himself (accidentally) and let out a yell for
help, with particular reference to
a fire extinguisher. Who so surprised as Jaunte and his colleagues when he found himself
standing alongside said extinguisher, seventy feet removed
from his lab bench?

They put Jaunte out and went into the whys and wherefores of his instantaneous seventy-foot journey. Teleportation—the transportation of oneself through space by an effort of the mind alone—had long been a theoretical concept, and there were a few hundred badly documented proofs that it had happened in the past. This was the first time that it had ever taken place before professional observers.

THEY investigated the Jaunte Effect savagely. This was something too Earth-shaking to handle with kid gloves and Jaunte was anxious to make his name immortal. He made his will and said farewell to his friends. Jaunte knew he was going to die because his fellow researchers were determined to kill him, if necessary. There was no doubt about that.

Twelve psychologists, parapsychologists and neurometrists of varying specialization were called in as observers. The experimenters sealed Jaunte into an unbreakable crystal tank. They opened a water valve, feeding water into the tank, and let Jaunte watch them smash the valve handle. It was impossible to open the tank; it was impossible to stop the flow of water.

The theory was that if it had required the threat of death to goad Jaunte into teleporting himself in the first place, they'd damned well threaten him with death again.

The tank filled quickly. The observers collected data with the tense precision of an eclipse camera crew. Jaunte began to drown. Then he was outside the tank, dripping and coughing explosively. He'd teleported again.

The experts examined and questioned him. They studied graphs and X-rays, neural patterns and body chemistry. They

began to get an inkling of how Jaunte had teleported. On the technical grapevine (this had to be kept secret), they sent out a call for suicide volunteers. They were still in the primitive stage of teleportation; death was the only spur they knew.

They briefed the volunteers thoroughly. Jaunte lectured on what he had done and how he thought he had done it. Then they proceeded to murder the volunteers. They drowned them, hanged them, burned them; they invented new forms of slow and controlled death. There was never any doubt in any of the subjects that death was the object.

Eighty per cent of the volunters died, and the agonies and remorse of their murderers would make a fascinating and horrible study, but that has no place in this history except to highlight the monstrosity of the times. Eighty per cent of the volunteers died, but twenty per cent jaunted. (The name became a word almost immediately.)

"Bring back the romantic age," the Romantics pleaded, "when men can risk their lives in high adventure."

The body of knowledge grew rapidly. By the first decade of the 25th century, the principles of jaunting were established and the first school was opened by Charles Fort Jaunte himself, then fifty-

seven, immortalized, and ashamed to admit that he had never dared jaunte again. But the primitive days were past; it was no longer necessary to threaten a man with death to make him teleport.

They had learned how to teach Man to recognize, discipline and exploit yet another resource of his limitless mind.

HOW, exactly, did Man teleport? One of the most unsatisfactory explanations was provided by Spencer Thompson, publicity representative of the Jaunte Schools, in a press interview.

THOMPSON: Jaunting is like seeing; it is a natural aptitude of almost every human organism, but it can only be developed by training and experience.

REPORTER: You mean we couldn't see without practice? THOMPSON: Obviously you're either unmarried or have no children . . . preferably both.

(LAUGHTER)

REPORTER: I don't understand.
THOMPSON: Anyone who's observed an infant learning to use its eyes would.

REPORTER: But what is teleportation?

THOMPSON: The transportation of oneself from one locality to another by an effort of the mind alone.

REPORTER: You mean we can think ourselves from, say, New York to Chicago?

THOMPSON; Precisely, provided one thing is clearly understood. In jaunting from New York to Chicago, it is necessary for the person teleporting himself to know exactly where he is when he starts and where he's going.

REPORTER: How's that?

THOMPSON: If you were in a dark room and unaware of where you were, it would be impossible to jaunte anywhere with safety. And if you knew where you were, but intended to jaunte to a place you had never seen, you would never arrive alive. One cannot jaunte from an unknown departure point to an unknown destination. Both must be known, memorized and visualized.

REPORTER: But if we know where we are and where we're going -?

THOMPSON: We can be pretty sure we'll jaunte and arrive.

REPORTER: Would we arrive naked?

THOMPSON: If you started naked.

(LAUGHTER)

REPORTER: I mean would our clothes teleport with us?

THOMPSON: When people teleport, they also teleport the clothes they wear and whatever they are strong enough to carry. I hate to disappoint you, but even ladies' clothes would arrive with them.

(LAUGHTER)

REPORTER: But how do we do it?

THOMPSON: How do we think? REPORTER: With our minds.

THOMPSON: And how does the mind think? What is the thinking process? Exactly how do we remember, imagine, deduce, create? Exactly how do the brain cells operate?

REPORTER: I don't know. Nobody knows.

THOMPSON: And nobody knows exactly how we teleport either, but we know we can do it—just as we know that we can think. Have you ever heard of Descartes? He said: Cogito ergo sum. I think, therefore I am. We say: Cogito ergo jaunte. I think, therefore I jaunte.

If it is thought that Thompson's explanation is exasperating, inspect this report of Sir John Kelvin to the Royal Society on the mechanism of jaunting:

We have established that the teleportative ability is associated with the Nissl bodies, or Tigroid Substance, in nerve cells. The Tigroid Substance is easiest demonstrated by Nissl's method using 3.75 g. of methylene blue and 1.75 g. of Venetian soap dissolved in 1,000 cc. of water.

Where the Tigroid Substance does not appear, jaunting is impossible. Teleportation is a Tigroid Function.

A NY man was capable of jaunting, provided he developed two faculties, visualization and concentration. He had to visualize, completely and precisely, the spot to which he desired to teleport himself; and he had to concentrate the latent energy of his mind into a single thrust to get him there. Above all, he had to have faith . . . the faith that Charles Fort Jaunte never recovered. He had to believe he would jaunte. The slightest doubt would block the mind-thrust necessary

for successful teleportation.

The limitations with which every man is born necessarily limited the ability to jaunte. Some could visualize magnificently and set the coordinates of their destination with precision, but lacked the power to get there. Others had the power but could not, so to speak, see where they were jaunting. And space set a final limitation, for no man had ever jaunted farther than a thousand miles. He could work his way in jaunting jumps over land and water from Nome to Mexico, but no jump could exceed a thousand miles.

By the 2420s, this form of employment application blank had become a commonplace:

	This space reserved for retina pattern identification				
NAME (Capital Letters):					
	Last	Middle	First		
RESIDENCE (Legal):					
	tinent	Country	County		
JAUNTE CLASS (Official Rating; Check One Only):					
L (50 miles):			les):		
X (10 miles):) miles):		
V (5 miles):		(100 mile	es):		

The old Bureau of Motor Vehicles took over the new job and regularly tested and classed

jaunte applicants, and the old American Automobile Association changed its initials to AJA.

Despite all efforts, no man had ever jaunted across the voids of space, although many experts and fools had tried. Helmut Grant, for one, who spent a month memorizing the coordinates of a jaunte stage on the Moon and visualized every mile of the two-hundred-and-forty-thousand-mile trajectory from Times Square to Kepler City. Grant jaunted and disappeared. They never found him.

They also never found Enzio Dandridge, a Los Angeles revivalist looking for Heaven; Jacob Maria Freundlich, a paraphysicist who should have known better than to jaunte into deep space searching for meta-dimensions; Shipwreck Cogan, a professional seeker after notoriety; and hundreds of others, lunatic-fringers, neurotics, escapists and suicides.

Space was closed to teleportation. Jaunting was restricted to the surfaces of the planets of the Solar System.

BUT within three generations, the entire Solar System was on the jaunte. The transition was more spectacular than the change-over from horse and buggy to gasoline age four centuries before. On three planets and eight satellites, social, legal and economic structures crashed while the new customs and laws demanded by universal jaunting mushroomed in their place.

There were land riots as the jaunting poor deserted slums to squat in plains and forests, raiding the livestock and wildlife. There was a revolution in home and office building; labyrinths and masking devices had to be introduced to prevent unlawful entry by jaunting. There were crashes and panics and strikes and famines as pre-jaunte industries failed.

Plagues and pandemics raged as jaunting vagrants carried disease and vermin into defenseless countries. Malaria, elephantiasis and break-bone fever came north to Greenland; rabies returned to England after an absence of three hundred years. The Japanese beetle, the citrous scale, the chest-nut blight and the elm borer spread to every corner of the world, and from one forgotten pest-hole in Borneo, leprosy, long considered extinct, reappeared.

Crime waves swept the planets and satellites as their underworlds took to jaunting with the night around the clock, and there were brutalities as the police fought them without quarter. There came a hideous return to the worst prudery of Victorianism as society, with protocol and taboo, fought the sexual and moral dangers of jaunting. A cruel and vicious war broke out between the Inner Planets – Venus, Terra and Mars – and the Outer Satellites, a

war brought on by the economic and political pressures of teleportation.

Until the Jaunte Age dawned, the three Inner Planets (and the Moon) had lived in delicate economic balance with the seven inhabited Outer Satellites — Io, Europa, Ganymede and Callisto of Jupiter; Rhea and Titan of Saturn; and Lassell of Neptune. The United Outer Satellites supplied raw materials for the Inner Planets' factories and a market for their finished goods. Within a decade, this balance was destroyed by jaunting.

The Outer Satellites, raw young worlds in the making, had bought seventy per cent of the I.P. transportation production. Jaunting ended that. They had bought ninety per cent of the I.P. communications production. Jaunting ended that, too. In consequence, I.P. purchase of O.S. raw materials fell off.

With trade exchange destroyed, it was inevitable that the economic war would degenerate into a shooting war. Inner Planet cartels refused to ship manufacturing equipment to the Outer Satellites, attempting to protect themselves against competition. The O.S. confiscated the plants already in operation on their worlds, broke patent agreements, ignored royalty obligations . . . and the war was on.

It was an age of freaks, monsters and grotesques. All the world was misshapen in marvelous and malevolent ways. The Classicists and Romantics who hated it were unaware of the potential greatness of the 25th century. They were blind to a cold fact of evolution - that progress stems from the clashing merger of antagonistic extremes, out of the marriage of pinnacle freaks. Classicists and Romantics alike were unaware that the Solar System was trembling on the verge of a human explosion that would transform Man and make him the master of the Universe.

It is against this seething background of the 25th century that the vengeful history of Gulliver Foyle begins.

1

HE WAS one hundred and seventy days dying and not yet dead. He fought for survival with the passion of a beast in a trap. Occasionally his primitive mind emerged from the burning nightmare of survival into something resembling sanity. Then he lifted his mute face to Eternity and muttered: "What's a matter, me? Help, you goddam Gods! Help, is all."

Blasphemy came easily to him; it was half his speech, all his life. He had been raised in the gutter

The life is the first to the state of the st

school of the 25th century and spoke nothing but the gutter tongue. Of all brutes in the world, he was among the least valuable alive and most likely to survive. So he struggled and prayed in blasphemy; but occasionally his raveling mind leaped backward to his childhood and remembered a nursery jingle:

Gully Foyle is my name
And Terra is my nation.

Deep space is my dwelling place
And death's my destination.

He was Gulliver Foyle, Mechanic's Mate 3rd Class, thirty years old, big-boned and rough ... and one hundred and seventy days adrift in space. He was Gully Foyle, the oiler, wiper, bunkerman; too easy for trouble, too slow for fun, too empty for friendship, too lazy for love. The lethargic outlines of his character showed in the official Merchant Marine records:

FOYLE, GULLIVER -AS-128/127:006

EDUCATION: NONE
SKILLS: NONE
MERITS: NONE
RECOMMENDATIONS: NONE
(PERSONNEL COMMENTS)

A man of physical strength and intellectual potential stunted by lack of ambition. Energizes at minimum. The stereotype Common Man. Some unexpected shock might possibly awaken him, but Psych cannot find the key. Not

recommended for further promotion.

Foyle had reached a dead end. He had been content to drift from moment to moment of existence for thirty years like some heavily armored creature, sluggish and indifferent . . . Gully Foyle, the stereotype Common Man; but now he was adrift in space for one hundred and seventy days, and the key to his awakening was in the lock. Presently it would turn and open the door to holocaust.

THE spaceship Nomad drifted L halfway between Mars and Jupiter. Whatever war catastrophe had wrecked it had taken a sleek steel rocket, one hundred yards long and one hundred feet broad, and mangled it into a skeleton on which was mounted the remains of cabins, holds, decks and bulkheads. Great rents in the hull were blazes of light on the sunside and frosty blotches of stars on the darkside. The SS Nomad was a weightless emptiness of blinding sun and jet shadow, frozen and silent.

The wreck was filled with a floating conglomerate of frozen debris that hung within the destroyed vessel like an instantaneous photograph of an explosion. The minute gravitational attraction of the bits of rubble for each

other was slowly drawing them into clusters which were periodically torn apart by the passage through them of the one survivor still alive on the wreck, Gulliver Foyle, AS-128/127:006.

He lived in the only airtight room left intact in the wreck, a tool locker off the main-deck corridor. The locker was four feet wide, four feet deep and nine feet high. It was the size of a giant's coffin. Six hundred years before, it had been judged the most exquisite Oriental torture to imprison a man in a cage that size for a few weeks. Yet Foyle had existed in this lightless coffin for five months, twenty days and four hours.

* * *

"Who are you?"

"Gully Foyle is my name."

"Where are you from?"

"Terra is my nation."

"Where are you now?"

"Deep space is my dwelling place."

"Where are you bound?"

"Death's my destination."

On the one hundred and seventy-first day of his fight for survival, Foyle answered these questions and awoke. His heart hammered and his throat burned.

He groped in the dark for the air tank which shared his coffin with him and checked it. The tank was empty. Another would have to be moved in at once. So

this day would commence with an extra skirmish with death which Foyle accepted with mute endurance.

He felt through the locker shelves and located a torn space-suit. It was the only one aboard the Nomad and Foyle no longer remembered where or how he had found it. He had sealed the tear with emergency spray, but had no way of refilling or replacing the empty oxygen cartridges on the back.

Foyle got into the suit. It would hold enough air from the locker to allow him five minutes in vacuum — no more.

Foyle opened the locker door and plunged out into the black frost of space. The air in the locker puffed out with him and its moisture congealed into a tiny snow cloud that drifted down the torn main-deck corridor. Foyle heaved at the exhausted air tank, floated it out of the locker and abandoned it.

One minute was gone.

himself through the floating debris toward the hatch to the ballast hold. He did not run; his gait was the unique locomotion of free-fall and weightlessness—thrusts with foot, elbow and hand against deck, wall and corner, a slow-motion swooping through space like a bat flying under wa-

ter. Foyle shot through the hatch into the darkside ballast hold. Two minutes were gone.

Like all spaceships, the Nomad was ballasted and stiffened with the mass of her gas tanks laid down the length of her keel like a long lumber raft tapped at the sides by a labyrinth of pipe fittings. Foyle took a minute disconnecting an air tank. He had no way of knowing whether it was full or already exhausted, whether he would fight it back to his locker only to discover that it was empty and his life was ended. Once a week, he endured this game of space roulette.

There was a roaring in his ears; the air in his spacesuit was rapidly going foul. He yanked the massy cylinder toward the ballast hatch, ducked to let it sail over his head, then thrust himself after it. He swung the tank through the hatch. Four minues had elapsed and he was shaking and blacking out. He guided the tank down the main-deck corridor and bulled it into the tool locker.

He slammed the locker door, dogged it, found a hammer on a shelf and swung it against the frozen tank to loosen the valve. Foyle twisted the handle grimly. With the last of his strength, he unsealed the helmet of his spacesuit, lest he suffocate within the suit while the locker filled with air . . . if this tank contained air.

He fainted, as he had fainted so often before, never knowing whether this was death.

* * *

"Who are you?"
"Gully Foyle."

"Where are you from?"

"Тегга."

"Where are you now?"

"Space."

"Where are you bound?"

He awoke. He was alive. He wasted no time on prayer or thanks but continued the business of survival. In the darkness, he explored the locker shelves where he kept his rations. There were only a few packets left. Since he was already wearing the patched spacesuit, he might just as well run the gantlet of vacuum again and replenish his supplies.

He flooded his spacesuit with air from the tank, resealed his helmet and sailed out into the frost and light again. He squirmed down the main-deck corridor and ascended the remains of a stairway to control deck, which was no more than a roofed corridor in space. Most of the walls were destroyed.

WITH the Sun on his right and the stars on his left, Foyle shot aft toward the galley store-room. Halfway down the corridor, he passed a door frame still standing foursquare between deck and roof. The leaf hung on its

hinges, half open, a door to nowhere. Behind it was all space and the steady stars.

As Foyle passed the door, he had a quick view of himself reflected in the polished chrome of the leaf . . . Gully Foyle, a giant gaunt creature, bearded, crusted with dried blood, emaciated, with sick, patient eyes . . . and followed always by a stream of floating debris, the raffle disturbed by his motion and following him through space like the tail of a festering comet.

Foyle turned into the galley storeroom and began looting with the methodical speed of five months' habit. Most of the bottled goods had frozen solid and exploded. Much of the canned goods had lost their containers, for tin crumbles to dust in the absolute zero of space. Foyle gathered up ration packets, concentrates and a chunk of ice from the burst water tank. He threw everything into a large copper cauldron, turned and darted out of the storeroom, carrying the cauldron.

At the door to nowhere, Foyle glanced at himself again, reflected in the chrome leaf framed in the stars. Then he stopped his motion in bewilderment. He stared at the stars behind the door which had become familiar friends after five months. There was an intruder among them — a comet, it seemed,

with an invisible head and a short, spurting tail. Then Foyle realized he was staring at a space-ship, stern rockets flaring as it accelerated on a Sunward course that must pass him.

"No," he muttered. "No, man.

He was continually suffering from hallucinations. He turned to resume the journey back to his coffin. Then he looked again. It was still a spaceship, stern rockets flaring as it accelerated on a Sunward course which must pass him. He discussed the illusion with Eternity.

"Six months already," he said in his gutter tongue. "Is it now? You listen a me, lousy Gods. I talkin' a deal, is all. I look again, sweet prayer-men. If it's a ship, I'm yours. You own me. But if it's a gaff, man—if it's no ship—I unseal right now and blow my guts. We both ballast level, us. Now reach me the sign, yes or no, is all."

He looked for a third time. For the third time, he saw a spaceship, stern rockets flaring as it accelerated on a Sunward course which must pass him.

It was the sign. He believed. He was saved.

FOYLE shoved off and went hurtling down the control-deck corridor toward the bridge. But at the companionway stairs, he restrained himself. He could not remain conscious for more than a few more moments without refilling his spacesuit. He gave the approaching spaceship one pleading look, then shot down to the tool locker and shakingly pumped his suit full.

He mounted to the control bridge. Through the starboard observation port, he saw the spaceship, stern rockets still flaring, evidently making a major alteration in course, for it was bearing down on him very slowly.

On a panel marked FLARES, Foyle pressed the DISTRESS button. There was a three-second pause during which he suffered. Then white radiance blinded him as the distress signal went off in three triple bursts, nine prayers for help. Foyle pressed the button twice again, and twice more the flares flashed in space while the radioactives incorporated in their combustion set up a static howl that must register on any waveband of any receiver.

The stranger's jets cut off. Foyle had been seen. He would be saved. He was reborn.

He exulted.

FOYLE swooped back to his locker and replenished his spacesuit. He began to weep as he started to gather his possessions—a faceless clock which he kept wound just to listen to the

ticking, a lug wrench with a handshaped handle which he would hold in lonely moments, an eggslicer upon whose wires he would pluck primitive tunes. He dropped them in his excitement, hunted for them in the dark, then began to laugh at himself.

He filled his spacesuit with air once more and capered back to the bridge. He punched a flare button labeled RESCUE. From the hull of the Nomad shot a sunlet that burst and hung, flooding miles of space with harsh white light.

"Come on, baby you," Foyle crooned. "Hurry up, man. Come on, baby baby you."

Like a ghost torpedo, the stranger slid into the outermost rim of light, approaching slowly, looking him over. For a moment, Foyle's heart constricted; the ship was behaving so cautiously that he feared she was an enemy vessel from the Outer Satellites.

Then he saw the famous red and blue emblem on her side, the trademark of the mighty industrial clan of Presteign; Presteign of Terra, powerful, munificent, beneficent. And he knew this was a sister ship, for the Nomad was also Presteign-owned. He knew this was an angel from space hovering over him.

"Sweet sister," Foyle crooned.
"Baby angel, fly away home with
me."

THE ship came abreast of Foyle, illuminated ports along its side glowing with friendly light, its name and registry number clearly visible in illuminated figures on the hull: VORGAT: 1339. The ship was alongside him in a moment, passing him in a second, disappearing in a third.

The sister had spurned him; the angel had abandoned him.

Foyle stopped dancing and crooning. He stared in dismay. He leaped to the flare panel and slapped buttons. Distress signals, landing, takeoff and quarantine flares burst from the hull of the Nomad in a madness of white, red and green light, pulsing, pleading . . . and Vorga-T:1339 passed silently and implacably, stern jets flaring again as it accelerated on a Sunward course.

So, in five seconds, he was born, he lived and he died. After thirty years of existence and six months of torture, Gully Foyle, the stereotype Common Man, was no more. The key turned in the lock of his soul and the door was opened. What emerged expunged the Common Man forever.

"You pass me by," he said with slow mounting fury. "You leave me rot like a dog. You leave me die, Vorga... Vorga-T:1339. No. I get out of here, me. I follow you, Vorga. I find you, Vorga. I pay you back, me. I rot you. I kill you, Vorga. I kill you filthy."

The acid of fury ran through him, eating away the brute patience and sluggishness that had made a cipher of Gully Foyle, precipitating a chain of reactions that would make an infernal machine of Gully Foyle. He was dedicated.

"Vorga. I kill you filthy."

He did what the cipher could not do - he rescued himself.

For two days, he combed the wreckage in five-minute forays and devised a harness for his shoulders. He attached an air tank to the harness and connected the tank to his spacesuit helmet with an improvised hose. He wriggled through space like an ant dragging a log, but he had the freedom of the *Nomad* for all time.

He thought.

In the control bridge, he taught himself to use the few navigation instruments that were still unbroken, studying the standard manuals that littered the wrecked navigation room. In the ten years of his service in space, he had never dreamed of attempting such a thing, despite the rewards of promotion and pay; but now he had *Vorga-T*: 1339 to reward him.

He took sights. The Nomad was drifting in space on the ecliptic, three hundred million miles from the Sun. Before him were spread the constellations Per-

seus, Andromeda and Pisces. Hanging almost in the foreground was a dusty orange spot that was Jupiter, distinctly a planetary disc to the naked eye.

With any luck, he could make a course for Jupiter and rescue.

TUPITER was not, could never be habitable. Like all the planets beyond the asteroid orbits, it was a frozen mass of methane and ammonia, but its four largest satellites swarmed with cities and populations now at war with the Inner Planets. He would be a war prisoner, but he had to stay alive to settle accounts with Vorga-T:1339.

Foyle inspected the engine room of the Nomad. There was Hi-Thrust fuel remaining in the tanks and one of the four tail jets was still in operative condition.

Foyle found the engine-room manuals and studied them. He repaired the connection between fuel tanks and the one jet chamber. The tanks were on the sunside of the wreck and warmed above freezing point. The Hi-Thrust was still liquid, but it would not flow. In free-fall, there was no gravity to draw the fuel down the pipes.

Foyle studied a space manual and learned something about theoretical gravity. If he could put the Nomad into a spin, centrifugal force would impart enough Foyle brought ice from the

gravitation to the ship to draw fuel down into the combustion chamber of the jet. If he could fire the combustion chamber, the unequal thrust of the one jet would impart a spin to the Nomad.

But he couldn't fire the jet without first having the spin; and he couldn't get the spin without first firing the jet.

He thought his way out of the deadlock, inspired by Vorga.

Foyle opened the drainage petcock in the combustion chamber of the jet and tortuously filled the chamber with fuel by hand. He had primed the pump. Now, if he ignited the fuel, it would fire long enough to impart the spin and start gravity. Then the flow from the tanks would commence and the rocketing would continue.

He tried matches.

Matches will not burn in the vacuum of space.

He tried flint and steel.

Sparks will not glow in the absolute zero of space.

He thought of red-hot filaments.

He had no electric power of any description aboard the Nomad to make a filament red hot.

He found texts and read. Although he was blacking out frequently and close to complete collapse, he thought and planned. He was inspired to greatness by Vorga.

frozen galley tanks, melted it with his own body heat, and added water to the jet combustion chamber. The fuel and the water were non-miscible; they did not mix. The water floated in a thin layer over the fuel.

FROM the chemical stores, Foyle brought a silvery bit of wire, pure sodium metal. He poked the wire through the open petcock. The sodium ignited when it touched the water and flared with high heat. The heat touched off the Hi-Thrust, which burst in a needle flame from the petcock. Foyle closed the petcock with a wrench. The ignition held in the chamber and the lone aft jet slammed out flame with a soundless vibration that shook the ship.

The off-center thrust of the jet twisted the Nomad into a slow spin. The torque imparted a slight gravity. Weight returned. The floating debris that cluttered the hull fell to decks, walls and ceilings; and the gravity kept the fuel feeding from tanks to combustion chamber.

Foyle wasted no time on cheers. He left the engine room and struggled forward in desperate haste for a final, fatal observation from the control bridge. This would tell him whether the Nomad was committed to a wild plunge out into the no-return of dred years. deep space, or a course for Jupi- They were savages, the only

ter and the chance of rescue.

The slight gravity made his air tank almost impossible to drag. The sudden forward surge of acceleration shook loose masses of debris which flew backward through the Nomad.

As Foyle struggled up the companionway stairs to the control deck, the rubble from the bridge came hurtling back down the corridor and smashed into him. He was caught up in this tumbleweed in space, rolled back the length of the empty corridor and brought up against the galley bulkhead with an impact that shattered his last hold on consciousness.

He lay pinned in the center of half a ton of wreckage, helpless, barely alive, but still raging for vengeance.

"Who are you?" "Where are you from?" "Where are you now?" "Where are you bound?"

BETWEEN Mars and Jupiter is spread the broad belt of the asteroids. Of the thousands, known and unknown, most unique to the Freak Century was the Sargasso Asteroid, a tiny planet manufactured of natural rock and wreckage, salvaged by its inhabitants in the course of two hun-

savages of the 25th century; descendants of a research team of scientists that had been lost and marooned in the Asteroid Belt two centuries before, when their ship had failed. By the time their descendants were rediscovered, they had built up a world and a culture of their own and preferred to remain in space, salvaging and spoiling, and practicing a barbaric travesty of the scientific method they remembered from their forebears. They called themselves The Scientific People. The world promptly forgot them.

SS Nomad looped through space, neither on a course for Jupiter nor the far stars, but drifting across the Asteroid Belt in the slow spiral of a dying animalcule. It passed within a mile of the Sargasso Asteroid and it was immediately captured by The Scientific People to be incorporated into their little planet. They found Foyle.

He awoke once while he was being carried in triumph on a litter through the natural and artificial passages within the scavenger asteroid. The passages were constructed of meteor metal, stone and hull plates. Some of the plates still bore names long forgotten in the history of space travel: Indus Queen, Terra; Syrtus Rambler, The passages led to great halls, storerooms, apartments and

homes, all built of salvaged ships cemented into the asteroid.

In rapid succession, Foyle was borne through an ancient Ganymede scow, a Lassell ice-borer, a captain's barge, a Callisto heavy cruiser, a 22nd-century fuel transport with glass tanks still filled with smoky rocket fuel. Two centuries of salvage were gathered in this hive: armories of weapons, libraries of books, museums of costume, warehouses of machinery, tools, rations, drink, chemicals, synthetics and surrogates.

A crowd around the litter was howling triumphantly. "Quant Suff!" they shouted. A woman's chorus began an excited bleating:

"Ammonium bromide gr. 11/2 Potassium bromide gr. 3 Sodium bromide gr. 2 Citric acid quant. suff." "Quant Suff!" The Scientific People roared. "Quant Suff!" Foyle fainted.

LE AWOKE again. He had been taken out of his spacesuit. He was in the greenhouse of the asteroid, where plants were grown for fresh oxygen. The hundred-yard hull of an old ore carrier formed the room and one wall had been entirely fitted with salvaged windows - round ports, square ports, diamond, hexagonal Mars; Three Ring Circus, Saturn. - every shape and age of port had been introduced until the vast wall was a crazy quilt of

haphazard glass and weird light.

The distant Sun blazed through; the air was hot and moist. Foyle gazed around dimly. A devil face peered at him, Cheeks, chin, nose and eyelids were hideously tattooed like an ancient Maori mask.

Across the brow was tattooed J & SEPH.

The "O" in J & SEPH had a tiny arrow thrust up from the right shoulder, turning it into the symbol of Mars, used by scientists to designate male sex.

"We are the Scientific Race," the devil face said. "I am J & seph; these are my people."

He gestured. Foyle gazed at the grinning crowd surrounding his litter. All faces were tattooed into devil masks; all brows had names blazoned across them.

"How long did you drift?" J & seph asked.

"Vorga," Foyle mumbled.

"You are the first to arrive alive in fifty years. You are a puissant man. Very. Arrival of the fittest is the doctrine of Holy Darwin. Most scientific."

"Quant Suff!" the crowd bellowed.

J & seph seized Foyle's elbow in the manner of a physician taking a pulse. His devil mouth counted solemnly up to ninety-eight.

"Your pulse-ninety-eight point six," J & seph said, producing a

thermometer and shaking it reverently. "Most scientific."

"Quant Suff!" came the chorus.

J & seph proffered an Erlenmeyer flask. It was labeled: Lung, Cat. c.s., hematoxylin & eosin.

"Vitamin?" J & seph inquired.

When Foyle did not respond, J & seph removed a large pill from the flask, placed it in the bowl of a pipe and lit it. He puffed once and then gestured. Three girls appeared before Foyle. Their faces were grotesquely tattooed. Across each brow was a name:

J♀AN.

M ♀ IRA.

P Q LLY.

The "O" of each name had a tiny cross at the base, the sign of Venus and female sex.

"Choose," J & seph said. "The Scientific People practice Natural Selection. Be scientific in your choice. Be genetic."

As Foyle fainted again, his arm slid off the litter and glanced against M 2 ira.

"Quant Suff!"

FOYLE was in a circular hall with a domed roof. The hall was filled with rusting antique apparatus: a centrifuge, an operating table, a wrecked fluoroscope, autoclaves, cases of corroded surgical instruments.

They strapped Foyle down on the operating table while he raved and rambled. They fed him. They shaved and bathed him. Two men began turning the ancient centrifuge by hand. It emitted a rhythmic clanking like the pounding of a war drum. The assembled began tramping and chanting.

They turned on the ancient autoclave. It boiled and geysered, filling the hall with howling steam. They turned on the old fluoroscope. It was short-circuited and it spat sizzling bolts of lightning across the steaming hall.

A ten-foot figure loomed up to the table. It was J & seph on stilts. He wore a surgical cap, a surgical mask and a surgeon's gown that hung from his shoulders to the floor. The gown was heavily embroidered with red and black thread, illustrating anatomical sections of the body. J & seph was a lurid tapestry out of a surgical text.

"I pronounce you Nomad!"

J & seph intoned.

The uproar became deafening. Joseph tilted a rusty can over Foyle's body. There was the reek of ether. Foyle lost his tatters of consciousness and darkness enveloped him. Out of the darkness, Vorga-T:1339 surged again and again, accelerating on a Sunward course that burst through Foyle's blood and brains until he could not stop screaming silently for vengeance.

* * *

He was dimly aware of wash-

ings and feedings and trampings and chantings. At last he awoke to a lucid interval. There was silence. He was in a bed. The girl, M \circ ira, was in bed with him.

"Who you?" Foyle croaked.

"Your wife, Nomad."

"What?"

"Your wife. You chose me, Nomad. We are gametes."

"What?"

"Scientifically mated," M a ira said proudly. She pulled up the sleeve of her nightgown and showed him her arm. It was disfigured by four ugly slashes. "I have been inoculated with something old, something new, something borrowed and something blue."

Foyle struggled out of the bed. "Where we now?"

"In our home."

"What home?"

"Yours. You are one of us, Nomad. You must marry every month and beget many children. That will be scientific. But I am the first."

Foyle ignored her and explored. He was in the main cabin of a small rocket launch of the early 2300s, once a private yacht. The main cabin had been converted into a bedroom.

HE lurched to the ports and looked out. The launch was sealed into the mass of the asteroid, connected by passages to the

main body. He went aft. Two smaller cabins were filled with growing plants for oxygen. The engine room had been converted into a kitchen. There was Hi-Thrust in the fuel tanks, but it fed the burners of a small stove atop the rocket chambers. Foyle went forward. The control cabin was now a parlor, but the controls were still operative.

He thought.

Then he went aft to the kitchen and dismantled the stove. He reconnected the fuel tanks to the original jet combustion chambers. M 9 ira followed him curiously.

"What are you doing, Nomad?" "Got to get out of here, girl," Foyle mumbled. "Got business with a ship called Vorga. You dig me, girl? Going to ram out in this boat, is all."

M 9 ira backed away in alarm. Foyle saw the look in her eyes and leaped for her. He was so crippled that she avoided him easily. She opened her mouth and let out a scream. At that moment, a mighty clangor filled the launch; it was J & seph and his devilfaced Scientic People outside, banging on the metal hull, going through the ritual of a scientific charivari for the newlyweds.

M 9 ira screamed and dodged while Foyle pursued her patiently. He trapped her in a corner, ripped her nightgown off and hollow explosion as Hi-Thrust bound and gagged her with it. flamed out of the stern of the

M 9 ira made enough noise to split the asteroid open, but the scientific charivari was louder.

Foyle finished his rough patching of the engine room; he was almost an expert by now. He picked up the writhing girl and took her to the main hatch.

"Leaving," he shouted in M 9 ira's ear. "Take off. Blast right out of asteroid. Hell of a smash, girl. Maybe all die, you. Everything busted wide open. Guesses for grabs what happens. No more air. No more asteroid. Go tell'm. Warn'm. Go, girl."

He opened the hatch, shoved M 9 ira out, slammed the hatch and dogged it. The charivari stopped abruptly.

At the controls, Foyle pressed ignition. The automatic takeoff siren began a shriek that had not sounded in decades. The jet chambers ignited with dull concussions. Foyle waited for the temperature to reach firing heat.

While he waited, he suffered. The launch was cemented into the asteroid. It was surrounded by stone and iron. Its rear jets were flush on the hull of another ship packed into the mass. He didn't know what would happen when his jets began their thrust, but he was driven to gamble by Vorga.

He fired the jets. There was a

ship. The launch shuddered, yawed, heated. A squeal of metalbegan. Then the launch grated forward. Metal, stone and glass split and the ship burst out of the asteroid into space.

HE Inner Planets navy picked him up ninety thousand miles outside Mars orbit. After seven months of shooting war, the IP patrols were alert but reckless. When the launch failed to answer and give recognition countersigns, it should have been shattered with a blast and questions could have been asked of the wreckage later. But the launch was small and the cruiser crew was hot for prize money.

They closed and grappled.

They found Foyle inside, crawling like a headless worm through a junkheap of spaceship and home furnishings. He was bleeding again, ripe with gangrene, and one side of his head was pulpy. They brought him into the sick bay aboard the cruiser and carefully curtained his tank. Foyle was no sight even for the tough stomachs of lower-deck navy men.

They patched his carcass in the amniotic tank while they completed their tour of duty. On the jet back to Terra, Foyle recovered consciousness and bubbled words beginning with V. He knew he

vengeance. The sick-bay orderly heard him exulting in his tank and parted the curtains. Foyle's filmed eyes looked up. The orderly could not restrain his sickened curiosity.

"You hear me, man?" he whispered.

Foyle grunted.

The orderly bent lower. "What happened? Who in hell done that to you?"

"What?" Foyle croaked.

"Don't you know?"

"What? What's a matter, you?" "Wait a minute, is all."

The orderly disappeared as he jaunted to a supply cabin and reappeared alongside the tank five seconds later. Foyle struggled up out of the fluid. His eyes blazed.

"It's coming back, man. Some of it. Jaunte. I couldn't jaunte on the Nomad, me."

"What?"

"I was off my head."

"Man, you didn't have no head left, you."

"I cculdn't jaunte. I forgot how, is all. I forgot everything, me. Still don't really remember much. I -"

He recoiled in terror as the orderly thrust the picture of a hideous tattooed face before him. It was a Maori mask. Cheeks, chin, nose and eyelids were decowas saved. He knew that only rated with stripes and swirls. time stood between him and Across the brow was blazoned

N&MAD. Foyle stared, then cried out in agony.

The picture was a mirror.
The face was his own.

BRAVO, Mr. Harris! Well done! L-E-S, gentlemen. Never forget. Location. Elevation. Situation. That's the only way to remember your jaunte coordinates. Don't jaunte yet, Mr. Peters. Wait your turn. Be patient, you'll all be C class by and by. Has anyone seen Mr. Foyle? He's missing. Oh, look at that heavenly Brown Thrasher. Listen to him. Oh, dear, I'm thinking all over the place . . . or have I been speaking, gentlemen?"

"Half and haif, ma'am."

"It does seem unfair. One-way telepathy is a nuisance. I do apologize for shrapneling you with my thoughts."

"We like it, ma'am. You think pretty."

"How sweet of you, Mr. Gorgas.
All right, class; all back to school and we start again. Has Mr. Foyle jaunted already? I never can keep track of him."

Robin Wednesbury was conducting her re-education class in jaunting on its tour through New York City, and it was a exciting a business for the cerebral cases as it was for the children in her primer class. She treated the adults like children and they rather enjoyed it. For the past

month, they had been memorizing jaunte stages at street intersections, chanting: "L-E-S, ma'am. Location. Elevation. Situation."

She was a tall, lovely Negro girl, brilliant and cultivated, but handicapped by the fact that she was a telesend, a one-way telepath. She could broadcast her thoughts to the world, but could receive nothing. This was a disadvantage that barred her from more glamorous careers, yet suited her for teaching. Despite her volatile temperament, Robin Wednesbury was a thorough and methodical jaunte instructor.

The men were brought down from General War Hospital to the jaunte school, which occupied an entire building in the Hudson Bridge at 42nd Street.

They started from the school and marched in a sedate crocodile to the vast Time Square jaunte stage, which they earnestly memorized. Then they all jaunted to the school and back to Times Square.

The crocodile reformed and they marched up to Columbus Circle and memorized its coordinates. Then all jaunted back to school via Times Square and returned by the same route to Columbus Circle.

Once more, the crocodile formed and off they went to Grand Army Plaza to repeat the memorizing and the jaunting.

ROBIN was re-educating the patients (all head injuries who had lost the power to jaunte) to the express stops, so to speak, of the public jaunte stages. Later they would memorize the local stops at street intersections.

As their horizons expanded (and their powers returned), they would memorize jaunte stages in widening circles, limited as much by income as ability, for one thing was certain: You had to actually see a place to memorize it, which meant you first had to pay for the transportation to get you there. Even 3-D photographs would not do the trick. The Grand Tour had taken on a new significance for the rich.

"Location. Elevation. Situation," Robin Wednesbury lectured, and the class jaunted by express stages from Washington Heights to the Hudson Bridge and back again in primer jumps of a quarter-mile each, following their lovely Negro teacher earnestly.

The little technical sergeant with the platinum skull suddenly spoke in the gutter tongue: "But there ain't no elevation, ma'am. We're on the ground, us."

"Isn't, Sgt. Logan. 'Isn't any' would be better. I beg your pardon. Teaching becomes a habit and I'm having trouble controlling my thinking today. The war news is so bad. We'll get to Elevation when we start memorizing the

stages on top of skyscrapers, Sgt. Logan."

The man with the rebuilt skull digested that, then asked: "We hear you when you think, is a matter you?"

"Exactly."

. "But you don't hear us?"

"Never. I'm a one-way telepath."

"We all hear you? Or just me, is all?"

"That depends, Sgt. Logan. When I'm concentrating, only the one I'm thinking at; when I'm at loose ends, anybody and everybody... poor souls. Excuse me." Robin turned and called: "Don't hesitate before jaunting, Chief Harris. That starts doubting and doubting ends jaunting. Just step up and bang off."

"I worry sometimes, ma'am," a chief petty officer with a tightly bandaged head answered. He was obviously stalling at the edge of the jaunte stage.

"Worry? About what?"

"Maybe there's gonna be somebody standing where I arrive. Then there'll be a hell of a real bang, ma'am."

"Now I've explained that a hundred times. Experts have gauged every jaunte stage in the world to accommodate peak traffic. That's why private jaunte stages are small, while the Times Square stage is two hundred yards wide. It's all been worked out

mathematically and there isn't one chance in ten million of a simultaneous arrival. That's less than your chance of being killed in a jet accident."

THE bandaged C.P.O. nodded dubiously and stepped up on the raised stage. It was of white concrete, round, and decorated on its face with vivid black and white patterns as an aid to memory. In the center was an illuminated plaque which gave its name and jaunte coordinates of latitude, longitude and elevation.

At the moment when the bandaged man was gathering courage for his primer jaunte, the stage began to flicker with a sudden flurry of arrivals and departures. Figures appeared momentarily as they jaunted in, hesitated while they checked their surroundings and set new coordinates, and then disappeared as they jaunted off. At each disappearance, there was a faint 'pop' as displaced air rushed into the space formerly occupied by a body.

"Wait, class," Robin called. "It's rush hour. Everybody off the stage, please."

Laborers in heavy work clothes, still spattered with snow, were on their way south to their homes after a shift in the north woods. Fifty white-clad dairy clerks were headed west toward St. Louis. They followed the morning from

the Eastern Time Zone to the Pacific Zone. And from eastern Greenland, where it was already noon, a horde of white-collar office workers was pouring into New York for their lunch hour.

"All right, class," Robin called when the rush was over. "We'll continue. Oh, dear, where is Mr. Foyle? He always seems to be missing."

"With a face like he's got, him, you can't blame him for hiding it, ma'am. Up in the cerebral ward, we call him Boogey."

"He does look dreadful, doesn't he, Sgt. Logan? Can't they get those marks off?"

"They're trying, Miss Robin, but they don't know how yet. It's called tattooing and it's sort of forgotten, is all."

"Then how did Mr. Foyle acquire his face?"

"Nobody knows, Miss Robin. He's up in cerebral because he's lost his mind, him. Can't remember nothing. Me, personal, if I had a face like that, I wouldn't want to remember nothing, too."

"It's a pity. He looks frightful. Sgt. Logan, do you suppose I've let a thought about Mr. Foyle slip and hurt his feelings?"

The little man with the platinum skull considered. "No, ma'am. You wouldn't hurt nobody's feelings, you. And Foyle ain't got none to hurt, him. He's just a big, dumb ox, is all."

"I have to be so careful, Sgt. Logan. You see, no one likes to know what another person really thinks about him. We imagine that we do, but we don't. This telesending of mine makes me loathed. And lonesome. I — please don't listen to me. I'm having trouble controlling my thinking. Ah! There you are, Mr. Foyle. Where in the world have you been wandering?"

FOYLE had jaunted in on the stage and stepped off quietly, his hideous face averted. "Been practicing, me," he mumbled.

Robin repressed the shudder of revulsion in her and went to him sympathetically. She took his arm. "You really should be with us more. We're all friends and having a grand time. Please join in."

Foyle refused to meet her glance. As he pulled his arm away from her sullenly, Robin suddenly realized that his sleeve was soaking wet. His entire hospital uniform was drenched.

"Wet? He's been in the rain somewhere. But I've seen the morning weather reports. No rain east of St. Louis. Then he must have jaunted farther than that. But he's not supposed to be able. He's supposed to have lost all memory and ability to jaunte. He's malingering."

Foyle leaped at her. "Shut up, You got a family to discuss."

you!" The savagery of his face was terrifying.

"Then you are malingering."

"How much do you know?"

"That you're a fool and you're making a scene."

"Did they hear you?"

"I don't know. Let go of me."
Robin turned away from Foyle.
"All right, class. We're finished for the day. Now back to school for the hospital bus. You jaunte first, Sgt. Logan. Remember: L-E-S. Location. Elevation. Situation . . ."

"What do you want?" Foyle growled. "A payoff, you?"

"Be quiet. Stop making a scene. Now don't hesitate, Chief Harris. Step up and jaunte off."

"I want to talk to you," said Foyle.

"Certainly not. Wait your turn, Mr. Peters. Don't be in such a hurry."

"You going to report me in the hospital?"

"Naturally."

"I want to talk to you."

"No."

"They gone now, all. We got time. I'll meet you in your apartment."

"My apartment?" Robin was genuinely frightened.

"In Green Bay, Wisconsin."

"This is absurd. I've got nothing to discuss with this —"

"You got plenty, Miss Robin. You got a family to discuss."

Foyle grinned at the terror she radiated. "Meet you in your apartment," he repeated.

"You can't possibly know where it is," she faltered.

"Just told you, didn't I?"

"Y-you couldn't possibly jaunte that far. You — "

"No?" The mask grinned. "You just told me I was mal — that word. You told the truth, you. We got half an hour. Meet you there."

ROBIN Wednesbury's apartment was in a massive building set alone on the shore of Green Bay. The apartment house looked as though a magician had removed it from a city residential area and abandoned it amidst the Wisconsin pines. Buildings like this were a commonplace in the jaunting world. With self-contained heat and light plants, and jaunting to solve the transportation problem, single and muliple dwellings were built in desert, forest and wilderness.

The apartment itself was a fourroom flat, heavily insulated to
protect neighbors from Robin's
telesending. It was crammed with
books, music, paintings and prints
— all evidence of the cultured
and lonely life of this unfortunate
wrong-way telepath.

Robin jaunted into the living room of the apartment a few seconds after Foyle, who was waiting for her with ferocious im-

"So now you know for sure," he began without preamble. He seized her arm in a painful grip. "But you ain't gonna tell nobody in the hospital about me, Miss Robin. Nobody."

"Let go of me!" Robin lashed him across his face. "Beast! Savage! Don't you dare touch me!"

Foyle released her and stepped back. The impact of her revulsion made him turn away angrily to conceal his face.

"So you've been malingering," she said. "You knew how to jaunte. You've been jaunting all the while you've been pretending to learn in the primer class, taking big jumps around the country— around the world, for all I know."

"Yeah. I go from Times Square to Columbus Circle by way of ... most anywhere, Miss Robin."

"And that's why you're always missing. But why? Why? What are you up to?"

An expression of possessed cunning appeared on the hideous face. "I'm holed up in General Hospital, me. It's my base of operations, see? I'm settling something, Miss Robin. I got a debt to pay off, me. I had to find out where a certain ship is. Now I got to pay her back. Now I rot you, Vorga. I kill you, Vorga. I kill you, Vorga. I kill you filthy!"



HE stopped shouting and glared at her in wild triumph. Robin backed away in alarm.

"For God's sake, what are you talking about?"

"Vorga. Vorga-T:1339. Ever hear of her, Miss Robin? I found out where she is from Bo'ness & Uig's ship registry. Bo'ness & Uig are out in SanFran. I went there, me, the time when you was learning us the crosstown jaunte stages. Went out to SanFran, me. Found Vorga, me. She's in Vancouver shipyards. She's owned by Presteign of Presteign. Heard of him, Miss Robin? Presteign's the biggest man on Terra, is all. But he won't stop me. I'll kill Vorga filthy. And you won't stop me neither, Miss Robin."

Foyle thrust his face close to hers. "Because I cover myself, Miss Robin. I cover every weak spot down the line. I got something on everybody who could stop me before I kill Vorga . . . including you, Miss Robin."

"No."

"Yeah. I found out where you live. They know up at the hospital. I come here and looked around. I read your diary, Miss Robin. You got a family on Callisto, mother and two sisters."

"For God's sake!"

"So that makes you an alienbelligerent. When the war started, you and all the rest was given one month to get out of the Inner Planets and go home. Any which didn't became spies by law." Foyle opened his hand. "I got you right here, girl." He clenched his hand.

"My mother and sisters have been trying to leave Callisto for a year and a half. We belong here. We —"

"Got you right here," Foyle repeated. "You know what they do to spies? They cut information out of them, Miss Robin. They take you apart, piece by piece —"

The Negro girl screamed. Foyle nodded happily and took her shaking shoulders in his hands. "I got you, is all, girl. You can't even run from me because all I got to do is tip Intelligence and where are you? There ain't nothing nobody can do to stop me; not the hospital or even Mr. Holy Mighty Presteign of Presteign."

"Get out, you filthy, hideous ... thing. Get out!"

"You don't like my face, Miss Robin? There ain't nothing you can do about that either."

Suddenly he picked her up and carried her to a deep couch. He threw her down on the couch.

"Nothing," he repeated.

DEVOTED to the principle of conspicuous waste, on which all society is based, Presteign of Presteign had fitted his Victorian mansion in Central Park with elevators, housephones, dumbwaiters and all the other labor-

saving devices which jaunting had made obsolete. The servants in that giant gingerbread castle walked dutifully from room to room, opening and closing doors and climbing stairs.

Presteign of Presteign arose, dressed with the aid of his valet and barber, descended to the morning room with the aid of an elevator, and breakfasted, assisted by a butler, footman and waitresses. He left the morning room and entered his study. In an age when communication systems were virtually extinct - when it was far easier to jaunte directly to a man's office for a discussion than to telephone or telegraph -Presteign still maintained an antique telephone switchboard with operator in his study.

"Get me Dagenham," he said.

THE operator struggled and put a call through to Dagenham Couriers, Inc. This was a hundred-million-credit organization of bonded jaunters set up to perform any public or confidential service for any principal. Their fee was Cr 1 per mile. Dagenham guaranteed to get a courier around the world in eighty minutes.

Eighty seconds after Presteign's call was put through, a Dagenham courier appeared on the private jaunte stage outside Presteign's home, was identified and admitrinth behind the entrance. Like every member of the Dagenham staff, he was an M class jaunter, capable of teleporting a thousand miles a jump indefinitely, and familiar with innumerable jaunte coordinates. He was a senior specialist in chicanery and cajolery, trained to the incisive efficiency and boldness that characterized Dagenham Couriers and reflected the ruthlessness of its founder.

"Presteign?" he said, wasting no time on protocol.

"I want to hire Dagenham."

"Ready, Presteign."

"Not you. I want Saul Dagenham himself."

"Mr. Dagenham no longer gives personal service for less than Cr 100,000."

"The amount will be five times that."

"Fee or percentage?"

"Both. Quarter of a million fee, and a quarter of a million guaranteed against ten per cent of the total amount at risk."

"Agreed. The matter?"

"PyrE."

"Spell it, please."

"The name means nothing to you?"

"No."

"Good. It will to Dagenham. PyrE. Capital P-Y-R Capital E. Pronounced 'pyre' as in funeral pyre. Tell Dagenham we've located the PyrE. He's engaged to

get it - at all costs - through a man named Foyle. Gulliver Foyle."

HE courier produced a tiny silver pearl, a memo-bead, repeated Presteign's instructions into it, and left without another word.

Presteign turned to his telephone operator. "Get me Regis Sheffield."

Ten minutes after the call went through to Regis Sheffield's law office, a young law clerk appeared on Presteign's private jaunte stage, was vetted and admitted through the maze. He was a bright young man with a scrubbed face and the expression of a delighted rabbit.

"Excuse the delay, Presteign," he said. "We got your call in Chicago and I'm still only a D class five-hundred-miler. Took me a while getting here."

"Is your chief trying a case in Chicago?"

"Chicago, New York and Washington. He's been on the jaunte from court to court all morning. We fill in for him when he's in another court."

"I want to retain him."

"Honored, Presteign, but Mr. Sheffield's pretty busy."

"Not too busy for PyrE."

"Sorry, sir, I don't quite -"

will. Just tell him PyrE, as in

funeral pyre, and the amount of his fee."

"Which is?"

"Quarter of a million retainer and a quarter of a million guaranteed against ten per cent of the total amount at risk."

"And what performance is required of Mr. Sheffield?"

"To prepare every known legal device for kidnaping a man and holding him against the army, the navy and the police."

"Quite. And the man?"

"Gulliver Foyle."

The law clerk muttered quick notes into a memo-bead, nodded and departed.

Presteign left the study and ascended the plush-carpeted stairs to his daughter's suite to pay his morning respects.

In the homes of the wealthy, the rooms of the female members were blind, without windows or doors, open only to the jaunting of intimate members of the family. Thus was morality maintained and chastity defended. But since Olivia Presteign was herself blind to normal sight, she could not jaunte. Consequently her suite was entered through doors closely guarded by ancient retainers in the Presteign clan livery.

LIVIA PRESTEIGN was a glorious albino. Her hair was "No, you don't, but Sheffield white silk, her skin was white satin, her nails, her lips and her eyes were coral. She was beautiful and blind in a wonderful way, for she could see in the infra-red only, from 7,500 Angströms to one-millimeter wavelengths. She saw heat waves, magnetic fields, radio waves, radar, sonar and electromagnetic fields.

She was holding her Grand Levee in the drawing room of the suite. She sat in a brocaded wing chair, sipping tea, guarded by her duenna, holding court, chatting with a dozen men and women standing about the room. She looked like an exquisite statue of marble and coral, her blind eyes flashing as she saw and yet did not see.

She saw the drawing room as a pulsating flow of heat emanations ranging from hot highlights to cool shadows. She saw the dazzling magnetic patterns of clocks, phones, lights and locks. She saw and recognized people by the characteristic heat patterns radiated by their faces and bodies. She saw, around each head, an aura of the faint neural brain pattern, and sparkling through the heat radiation of each body, the ever-changing mitogenetic tone of muscle and nerve.

Presteign did not care for the artists, musicians and fops Olivia kept about her, but he was pleased to see a scattering of society notables this morning. There was a

Sears-Roebuck; a Gillette; young Sidney Kodak, who would one day be Kodak of Kodak; a Houbigant; Buick of Buick; and R. H. Macy XVI, head of the powerful Saks-Gimbel clan.

Presteign paid his respects to his daughter and left the house. He set off for his clan head-quarters at 99 Wall Street in a coach and four driven by a coachman assisted by a groom, both wearing the Presteign trademark of red, black and blue. That black "P" on a field of scarlet and cobalt was one of the most ancient and distinguished trademarks in the social register, rivaling the "57" of the Heinz clan and the "RR" of the Rolls-Royce dynasty in antiquity.

The head of the Presteign clan was a familiar sight to New York jaunters. Iron-gray, handsome, powerful, impeccably dressed and mannered in the old-fashioned style, Presteign of Presteign was the epitome of the socially elect, for he was so exalted in station that he employed coachmen, grooms, hostlers, stableboys and horses to perform a function for him which ordinary mortals performed by jaunting.

As men climbed the social ladder, they displayed their position by their refusal to jaunte. The newly adopted into a great commercial clan rode an expensive bicycle. A rising clansman

drove a small sports car. The captain of a sept was transported in a chauffeur-driven antique from the old days, a vintage Bentley or Cadillac or a towering Lagonda. An heir-presumptive in direct line of succession to the clan chieftainship staffed a yacht or a plane.

Presteign of Presteign, head of the clan Presteign, owned carriages, cars, yachts, planes and trains. His position in society was so lofty that he had not jaunted in forty years. Secretly, he scorned the bustling new-rich like the Dagenhams and Sheffields, who still jaunted and were unashamed.

PRESTEIGN entered the crenelated keep at 99 Wall Street that was Castle Presteign. It was staffed and guarded by his famous Jaunte Watch, all in clan livery. Presteign walked with the stately gait of a chieftain as they piped him to his office. Indeed he was grander than a chieftain, as an importunate government official awaiting audience discovered to his dismay. That unfortunate man leaped forward from the waiting crowd of petitioners when Presteign passed.

"Mr. Presteign," he began, "I'm from the Internal Revenue Department. I must see you this morn —"

Presteign cut him short with an icy stare. "There are thousands of Presteigns. All are addressed as Mister. But I am Presteign of Presteign, head of house and sept, first of the family, chieftain of the clan. I am addressed as Presteign. Not 'Mister' Presteign. Presteign."

He turned and entered his office, where his staff greeted him with a muted chorus: "Good morning, Presteign."

Presteign nodded, smiled his basilisk smile and seated himself behind the enthroned desk while the Jaunte Watch skirled their pipes and ruffled their drums. Presteign signaled for the audience to begin. The Household Equerry stepped forward with a scroll, for Presteign disdained memo-beads and all mechanical business devices.

"Report on Clan Presteign enterprises," the Equerry began. "Common Stock: High-201½ Low-201¼. Average quotations New York, Paris, Ceylon, Tokyo—"

Presteign waved his hand irritably. The Equerry retired to be replaced by Black Rod.

"Another Mr. Presto to be invested, Presteign."

Presteign restrained his impatience and went through the tedious ceremony of swearing in the 497th Mr. Presto in the hierarchy of Presteign Prestos who managed the shops in the Presteign retail division. Until recently, the man

had had a face and body of his own. Now, he was ready to join the Prestos.

After six months of surgery and psycho-conditioning, he was identical to the other 496 Mr. Prestos and to the idealized portrait of Mr. Presto which hung behind Presteign's dais . . . a kindly, honest man resembling Abraham Lincoln, a man who instantly inspired affection and trust. Around the world, purchasers entered an identical Presteign store and were greeted by an identical manager, Mr. Presto.

He was rivaled, but not surpassed, by the Kodak clan's Mr. Kwik and Montgomery Ward's Uncle Monty.

WHEN the ceremony was completed, Presteign arose abruptly to indicate that the public investiture was ended. The office was cleared of all but the high officials. Presteign paced, obviously repressing his seething impatience. He never swore, but his restraint was more terrifying than profanity.

"Foyle," he said in a suffocated voice. "A common sailor. Dirt. Dregs. Gutter scum. But that man stands between me and —"

"If you please, Presteign," Black Rod interrupted timidly, "it's eleven o'clock, Eastern time; eight o'clock, Pacific time."

"What?"

"If you please, Presteign, may I remind you that there is a launching ceremony at nine, Pacific time? You are to preside at the Vancouver shipyards."

"Launching?"

"Our new freighter, the Presteign Princess. It will take some time to establish three-dimensional broadcast contact with the shipyard, so we had better — "

"I will attend in person."

"In person!" Black Rod faltered. "But we cannot possibly fly to Vancouver in an hour, Presteign. We — "

"I will jaunte," Presteign of Presteign snapped, such was his agitation.

His appalled staff made hasty preparations. Messengers jaunted ahead to warn the Presteign offices across the country and the private jaunte stages were cleared. Presteign was ushered to the stage within his New York office. It was a circular platform in a blackhung room without windows - a masking and concealment necessary to prevent unauthorized persons from discovering and memorizing coordinates. For the same reason, all homes and offices had one-way windows and confusion labyrinths behind their doors.

To jaunte, it was necessary (among other things) for a man to know exactly where he was and where he was going, or there was little hope of arriving anywhere alive. It was as impossible to jaunte from an undetermined starting point as it was to arrive at an unknown destination. Like shooting a pistol, one had to know where to aim and which end of the gun to hold. But a glance through a window or door might be enough to enable a man to memorize the L-E-S coordinates of a place.

PRESTEIGN stepped on the stage, visualized the coordinates of his destination in the Philadelphia office, seeing the picture clearly and the position accurately.

He relaxed and energized one concentrated thrust of will and belief toward the target.

He jaunted.

There was a dizzy moment in which his eyes blurred. The New York stage faded out of focus; the Philadelphia stage blurred into focus. There was a sensation of falling down, and then up.

He arrived.

Black Rod and others of his staff arrived a respectful moment later.

So, in jauntes of one and two hundred miles each, Presteign crossed the continent and arrived outside the Vancouver shipping yards at exactly nine o'clock in the morning, Pacific time. He had left New York at eleven A.M. He had gained two hours of daylight.

This, too, was a commonplace in a jaunting world.

The square mile of unfenced concrete — what fence could bar a jaunter? — comprising the ship-yard looked like a white table covered with black pennies neatly arranged in concentric circles. But on closer approach, the pennies enlarged into the hundred-foot mouths of black pits dug deep into the Earth. Each circular mouth was rimmed with concrete buildings, offices, check rooms, canteens, changing rooms.

These were the takeoff and landing pits, the drydock and construction pits, of the shipyards. Spaceships, like sailing vessels, were never designed to support their own weight unaided against the drag of gravity. Normal terran gravity would crack the spine of a spaceship.

The ships were built in deep pits, standing vertically in a network of catwalks and construction grids, braced and supported by anti-gravity screens. They took off from similar pits, riding the anti-grav beams upward, like motes mounting the vertical shaft of a searchlight, until at last they reached the Roche Limit and could thrust with their own jets. Landing spacecraft cut drive jets and rode the same beams downward into the pits.

As the Presteign entourage entered the Vancouver yards, they could see which of the pits were in use. From some, the noses and hulls of spaceships extruded, raised quarterway or halfway above ground by the anti-grav screens as workmen in the pits below brought their aft sections to particular operational levels.

Three Presteign V-class transports, Vega, Vestal and Vorga, stood partially raised near the center of the yards, undergoing flaking and replating, as the heat-lightning flicker of torches around Vorga indicated.

A T the concrete building marked ENTRY, the Presteign entourage stopped before a sign that read: YOU ARE EN-DANGERING YOUR LIFE IF YOU ENTER THESE PREMISES UNLAW-FULLY. YOU HAVE BEEN WARNED! Visitor badges were distributed to the party and even Presteign of Presteign received one. He dutifully pinned it on, for he well knew what the result of entering without such a protective badge would be. The entourage continued, winding its way through pits until it arrived at 0-3, where the pit-mouth was decorated with bunting in the Presteign colors and a small grandstand had been erected.

Presteign was welcomed and, in turn, greeted his various officials. The band struck up the clan song, bright and brassy, but one of the instruments appeared to have gone insane. It struck a brazen note that blared louder and louder until it engulfed the entire band and the surprised exclamations. Only then did Presteign realize that it was not an instrument, but the shipyard alarm.

An intruder was in the yard, someone not wearing an identification or visitor's badge. The radar field of the protection system was tripped and the alarm sounded. Through the raucous bellow of the alarm, Presteign could hear a multitude of 'Pops' as the yard guards jaunted from the grandstand and took positions around the square mile of concrete field. His own Jaunte Watch closed in around him, looking wary and alert.

A voice began blaring on the P.A., coordinating defense. "UN-KNOWN IN YARD. UN-KNOWN IN YARD AT E FOR EDWARD NINE. E FOR EDWARD NINE MOVING WEST ON FOOT."

"Someone must have broken in!" Black Rod shouted.

"I'm aware of that," Presteign answered calmly.

"He must be a stranger if he isn't jaunting into here."

"I'm aware of that also."

"UNKNOWN APPROACH-ING D FOR DAVID FIVE. D FOR DAVID FIVE. STILL ON FOOT. D FOR DAVID FIVE ALERT."

"What in God's name is he up to?" Black Rod exclaimed.

"You are familiar with my rule, sir," Presteign said coldly. "No associate of the Presteign clan may take the name of the Divinity in vain. You forget yourself."

"UNKNOWN NOW AP-PROACHING C FOR CHAR-LEY FIVE. NOW APPROACH-ING C FOR CHARLEY FIVE."

Black Rod touched Presteign's arm. "He's coming this way, Presteign. Will you take cover, please?"

"I will not."

"Presteign, there have been assassination attempts before. Three of them. If - "

"How do I get to the top of this stand?"

"Presteign!"

"Help me up."

A IDED by Black Rod, who was still protesting hysterically, Presteign climbed to the top of the grandstand to watch the power of the Presteign clan in action against danger. Below, he could see workmen in white jumpers swarming out of the pits to gape at the excitement. Guards were appearing as they jaunted from distant sectors toward the focal point of the action.

SOUTH TOWARD B FOR COVER. COVER!"

BAKER THREE. FOR B BAKER THREE."

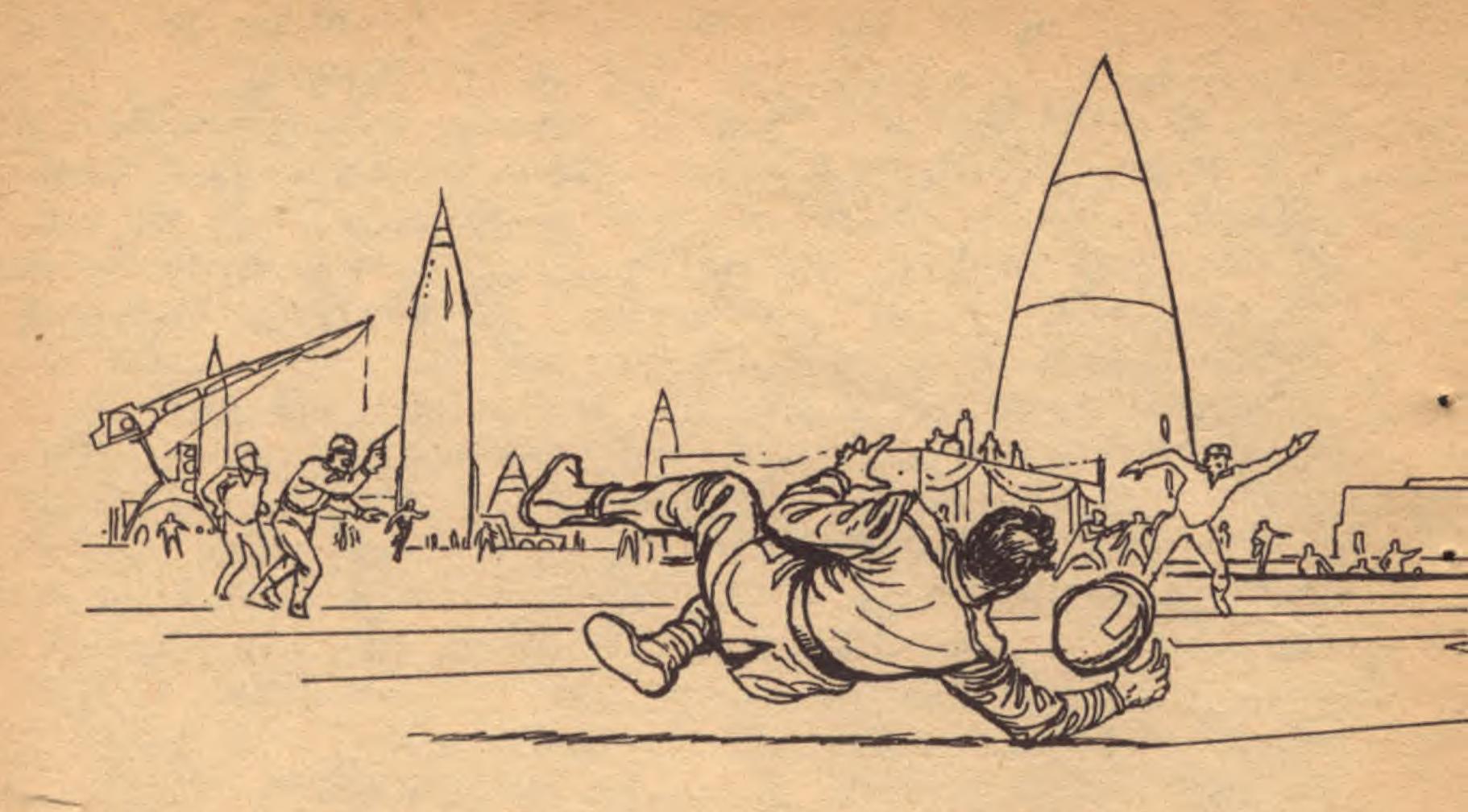
Presteign watched the B-3 pit. A figure appeared, dashing swiftly toward the pit, veering, dodging, bulling forward. It was a giant man in hospital blues with a wild thatch of black hair and a distorted face that appeared, in the distance, to be painted in livid colors. His clothes were flickering like heat lightning as the protective induction field of the defense system seared him.

"B FOR BAKER THREE ALERT. B FOR BAKER THREE CLOSE IN."

There were shouts and a distant rattle of shots, the pneumatic whine of scope guns. Half a dozen workmen in white leaped for the intruder. He scattered them and streaked on and on toward B-3, where the nose of Vorga showed. He was a lightning bolt driving through workmen and guards, pivoting, striking, whipping forward implacably.

Suddenly he stopped, reached inside his flaming jacket and withdrew a black canister. With the convulsive gesture of an animal writhing in death-throes, he bit the end of the canister and hurled it, straight and true on a high arc toward Vorga. The next instant, he was struck down.

"EXPLOSIVE. TAKE "UNKNOWN MOVING COVER. EXPLOSIVE. TAKE



"Presteign!" Black squawked.

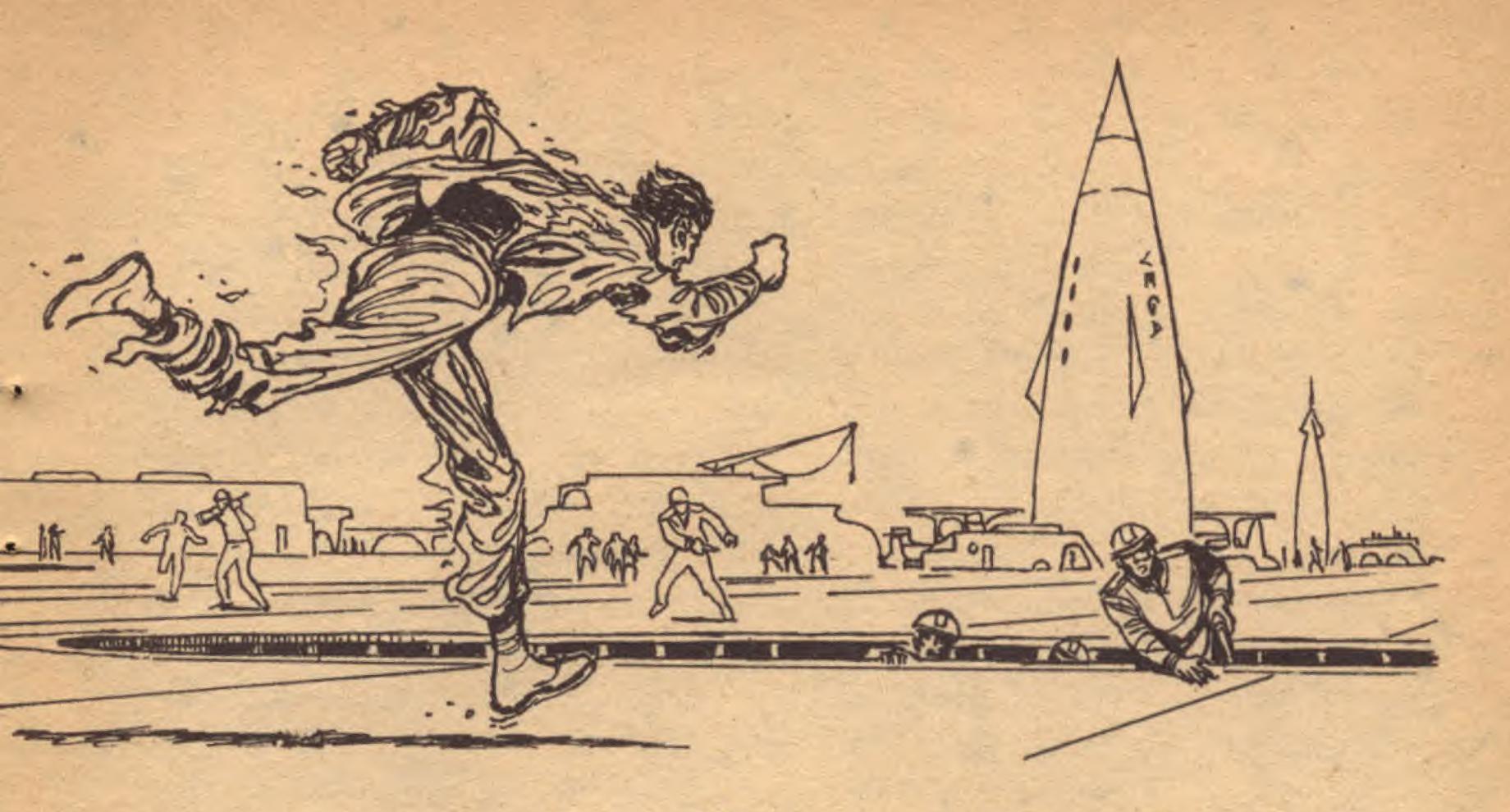
Presteign shook him off and thee - the Presteign Power." watched the canister curve up and then down toward the nose of Vorga, spinning and glinting in the cold sunlight. At the edge of the pit, it was caught by the anti-grav beam and flicked upward as by a giant invisible thumbnail. Up and up and up it whirled, one hundred, five hundred, a thousand feet. Then there was a blinding flash, and an instant later a titanic clap of thunder that smote ears and jarred teeth and bone.

Presteign picked himself up and descended the grandstand to the launching podium. He placed his finger on the launching button of the Presteign Princess. kept secrets.

"Bring me that man, if he's "Be seated, Captain Yeovil,"

Rod still alive," he told Black Rod. He pressed the button. "I christen

HE star chamber in Castle Presteign was an oval room with ivory panels picked out with gold, high mirrors and stained glass windows. It contained a gold organ with robot organist by Tiffany, a gold-tooled library with android librarian on library ladder, a Louis Quinze desk with android secretary before a manual memo-bead recorder, an American bar with robot bartender. Presteign would have preferred the ostentation of having human servants, but androids and robots



he said courteously. "This is Mr. Regis Sheffield, representing me in this matter. That young man is Mr. Sheffield's assistant."

"Bunny's my portable law library," Sheffield grunted.

Presteign touched a control. The still-life in the star chamber came alive. The organist played, the librarian sorted books, the secretary typed, the bartender shook drinks. It was spectacular. And the impact, carefully calculated by industrial psychometrists, established control for Presteign and put visitors at a disadvantage.

"You spoke of a man named Foyle, Captain Yeovil?" Presteign prompted.

Captain Peter Y'ang-Yeovil of Central Intelligence was a lineal descendant of the learned Mencius and belonged to the Intelligence Tong of the Inner Planets Armed Forces. For two hundred years, the IPAF had entrusted its Intelligence work to the Chinese who, with a five-thousand-year history of cultivated subtlety behind them, had achieved wonders. Captain Y'ang-Yeovil was a member of the dreaded Society of Paper Men, an adept of the Tientsin Image Makers, a Master of Superstition, and fluent in the Secret Speech. He did not look Chinese.

Y'ang-Yeovil hesitated, fully aware of the psychological pressures operating against him. He examined Presteign's ascetic, basilisk face; Sheffield's blunt, aggressive expression; and the eager young man named Bunny whose rabbit features had an un-

mistakable Oriental cast. It was necessary for Yeovil to establish control or effect some sort of compromise.

He opened with a flanking movement. "Are we related anywhere within fifteen degrees of consanguinity?" he asked Bunny in the Mandarin dialect. "I am of the house of the learned Meng-Tse, whom the barbarians call Mencius."

"Then we are hereditary enemies," Bunny answered in faltering Mandarin. "For the formidable ancestor of my line was deposed as governor of Shan-tung in 342 B.C. by the falsely honored Earthpig Meng-Tse."

"With all courtesy, I shave your ill-formed eyebrows," Y'ang-Yeovil said.

"Most respectfully, I singe your snaggle teeth." Bunny laughed.

"Come, sirs," Presteign protested.

"We are reaffirming a threethousand-year blood feud," Y'ang-Yeovil explained to Presteign, who looked sufficiently unsettled by the conversation and the laughter which he did not understand.

Y'ANG-YEOVIL tried a direct thrust. "When will you be finished with Foyle?"

"What Foyle?" Sheffield asked. "What Foyle have you got?" is required."

name associated with the clan Presteign."

"An interesting number. Did you know I was a Master of Superstitution? Some day I must show you the Mirror-And-Listen Mystery. I refer to the Foyle involved in a reported attempt on Mr. Presteign's life this morning."

"Presteign," Presteign corrected. "I am not 'Mister.' I am Presteign of Presteign."

"Three attempts have been made on Presteign's life," Sheffield said. "You'll have to be more specific."

"Three this morning? Presteign must have been busy." Y'ang-Yeovil sighed. Sheffield was proving himself a resolute opponent. The Intelligence man tried another diversion. "I do wish our Mr. Presto had been more specific."

"Your Mr. Presto!" Presteign exclaimed.

"Oh, yes. Didn't you know one of your five hundred Prestos was an agent of ours? That's odd. We took it for granted you'd find out and went ahead with a confusion operation."

Presteign looked appalled.

Y'ang-Yeovil crossed his legs and continued to chat breezily. "That's the basic weakness in routine Intelligence procedure you start finessing before finesse

"There are thirteen of that "He's bluffing," Presteign burst

out. "None of our Prestos could possibly have any knowledge of Gulliver Foyle."

"Thank you." Y'ang-Yeovil smiled. "That's the Foyle I want. When can you let us have him?"

Sheffield scowled at Presteign and then turned on Y'ang-Yeovil. "Who's 'us'?" he demanded.

"Central Intelligence."

"Why do you want him?"

"Do you make love to a woman before or after you have been introduced?"

"That's a damned impertinent question."

"And so was yours. When can you let us have Foyle?"

"When you show cause."

"To whom?"

"To me." Sheffield hammered a heavy forefinger against his palm. "This is a civilian matter concerning civilians. Unless war materiel, war personnel, or the strategy and tactics of a war-in-being are involved, civilian jurisdiction shall always prevail."

"303 Terran Appeals 191," murmured Bunny.

"The Nomad was carrying war materiel."

"The Nomad was transporting platinum bullion to Mars Bank," Presteign snapped. "If money is a -"

"I am leading this discussion," Sheffield interrupted. He swung around on Y'ang-Yeovil. "Name ever made that much difference." the war materiel."

HIS blunt challenge knocked Y'ang-Yeovil off balance. He knew that the crux of the Nomad situation was the presence on board ship of 20 pounds of PyrE, the total world supply, which was probably irreplaceable now that its discoverer had disappeared. He knew that Sheffield realized that they both knew this. He had assumed that Sheffield would prefer to keep PyrE unnamed. And yet here was the challenge to name the unnameable.

He attempted to meet bluntness with bluntness. "All right, gentlemen, I'll name it now. The Nomad was transporting twenty pounds of a substance called PyrE."

Presteign started; Sheffield silenced him. "What's PyrE?"

"According to our reports -"

"From Presteign's Mr. Presto?"

"Oh, that was bluff." Y'ang-Yeovil laughed and momentarily gained control. "According to Intelligence, PyrE was developed for Presteign by a man who subsequently vanished. PyrE is a Misch Metal, a pyrophore. That's all we know for a fact. But we've had vague reports about it - unbelievable reports from reputable agents. If a fraction of our inferences are correct, PyrE could make the difference between victory and defeat."

"Nonsense. No war materiel has "No? I cite the fission bomb of

1945. I cite the Null-G anti-gravity installations of 2022. Talley's All-Field Radar Trip Screen of 2194. Materiel can often make the difference, especially when there's the chance of the enemy getting it first."

"There's no such chance now."

"Thank you for admitting the importance of PyrE."

"I admit nothing; I deny everything."

"Central Intelligence is prepared to offer an exchange. A man for a man. The inventor of PyrE for Gully Foyle."

"You've got him?" Sheffield demanded. "Then why badger us for Foyle?"

"Because we've got a corpse!"
Yeovil flared. "The Outer Satellites command had him on Lassell for six months, trying to carve information out of him. We pulled him out with a raid at a cost of seventy-nine per cent casualties. We rescued a corpse. We still don't know if the Outer Satellites were having a cynical laugh at our expense, letting us recapture a body. We still don't know how much they ripped out of him."

PRESTEIGN sat sharply upright at this. His merciless fingers tapped slowly and sharply.

"Damn it!" Y'ang-Yeovil stormed. "Can't you recognize a crisis, Sheffield? We're on a tight-rope. What the devil are you doing

backing Presteign in this shabby deal? You're the leader of the Liberal party — Terra's arch-patriot. You're Presteign's political archenemy. Sell him out, you fool, before he sells us all out."

"Captain Yeovil," Presteign broke in with icy venom, "these remarks cannot be countenanced."

"We want and need PyrE," Y'ang-Yeovil continued. "We'll have to investigate that twenty pounds of PyrE, rediscover the synthesis, learn to apply it to the war effort . . . and all this before the O.S. beat us to the punch, if they haven't already. But Presteign refuses to cooperate. Why? Because he's opposed to the party in power. He wants no military victories for the Liberals. He'd rather we lost the war for the sake of politics because men like Presteign never lose. Come to your senses, Sheffield. You've been retained by a traitor. What in God's name are you trying to do?"

Before Sheffield could answer, there was a discreet tap on the door of the Star Chamber and Saul Dagenham was ushered in. Time was when Dagenham had been one of the Inner Planets' research wizards, a physicist with inspired intuition, total recall, and a sixth-order computer for a brain. But there had been an accident at Tycho Sands and the fission blast that should have killed him did not. Instead, it turned him danger-

ously radioactive; it transformed him into a 25th century "Typhoid Mary."

He was paid Cr 25,000 a year by the Inner Planets government to take precautions which they trusted him to carry out. He avoided physical contact with any person for more than five minutes per day. He could not occupy any room, not his own, for more than thirty minutes a day. Commanded and paid by the IP to isolate himself, Dagenham had abandoned research and built the colossus of Dagenham Couriers, Inc.

When Y'ang-Yeovil saw the short blond cadaver with leaden skin and death's-head smile enter the Star Chamber, he knew he was assured of defeat in this encounter. He was no match for the three men together. He arose at once.

"I'm getting an Admiralty order for Foyle," he said. "As far as Intelligence is concerned, all negotiations are ended. From now on, it's war."

"Captain Yeovil is leaving,"
Presteign called to the Jaunte
Watch officer who had guided
Dagenham in. "Please see him out
through the maze."

Y'ang-Yeovil waited until the officer stepped alongside him and bowed. Then, as the man courte-ously motioned to the door, Y'ang-Yeovil looked directly at Presteign, smiled ironically and

disappeared with a faint 'pop.'

"Presteign!" Bunny exclaimed.

"He jaunted. This room isn't blind to him. He —"

"Evidently," Presteign said. "Inform the Master of the Household," he instructed the amazed Watch officer. "The coordinates of the Star Chamber are no longer secret. They must be changed within twenty-four hours. And now, Mr. Dagenham —"

"One minute," said Dagenham.

"There's that Admiralty order."

WITHOUT apology or explanation, Dagenham disappeared, too. Presteign raised his eyebrows.

"Another party to the Star Chamber secret," he murmured. "But at least he had the tact to conceal his knowledge until the secret was out."

Dagenham reappeared. "No point wasting time going through the motions of the maze," he said. "I've given orders in Washington. They'll hold Yeovil up; two hours guaranteed, three hours probable, four hours possible."

"How will they hold him up?"
Bunny asked.

Dagenham gave him his deadly smile. "Standard FFCC Operation of Dagenham Couriers — fun, fantasy, confusion, catastrophe. We'll need all four hours. Damn! I've disrupted your dolls, Presteign." The robots were suddenly caper-

ing in lunatic fashion as Dagenham's hard radiation penetrated their electronic systems. "No matter. I'll be on my way."

"Foyle?" Presteign demanded.
"Nothing yet." Dagenham
grinned his death's-head smile.
"He's really unique. I've tried all
the standard drugs and routines
on him. Nothing. Outside, he's just
an ordinary spaceman—if you
forget the tattoo on his face—but
inside he's got steel guts. Something's got hold of him and he
won't give."

"What's got hold of him?" Sheffield asked.

"I hope to find out."

"How?"

"Don't ask; you'd be an accessory. Have you got a ship ready, Presteign?"

Presteign nodded.

"I'm not guaranteeing there'll be any Nomad for us to find, but we'll have to get a jump on the navy if there is. Law ready, Sheffield?"

"Ready. I'm hoping we won't have to use it."

"I'm hoping, too; but again, I'm not guaranteeing. All right, stand by for instructions. I'm on my way to crack Foyle."

"Where have you got him?"

Dagenham shook his head. "This room isn't secure." He disappeared.

He jaunted Cincinnati-New Orleans-Monterrey to Mexico City, where he appeared in the Psychiatry Wing of the giant hospital of the Combined Terran Universities. 'Wing' was hardly an adequate name for this section, which occupied an entire city in the metropolis that was the hospital.

He jaunted up to the 43rd floor of the Therapy Division and looked into the isolated tank where Foyle floated, unconscious.

DAGENHAM glanced at the distinguished bearded gentleman in attendance. "Hello, Fritz."

"Hello, Saul."

"Hell of a thing, the head of psychiatry minding a patient for me."

"I think we owe you favors, Saul."

"You still brooding about Tycho Sands, Fritz? I'm not. Am I lousing your wing with radiation?"

"I've had everything shielded."
"Ready for the dirty work?"

"I wish I knew what you were after."

"Information."

"And you have to turn my therapy department into an inquisition to get it?"

"That was the idea."

"Why not use ordinary drugs?"

"Tried them already. No good. He's not an ordinary man."

"You know this is illegal."

"I know. Changed your mind?

Want to back out? I can duplicate your equipment for a quarter of a million."

"No, Saul. We'll always owe you favors."

"Then let's go. Nightmare Theater first."

They trundled the tank down a corridor and into a hundred-feet-square padded room. It was one of therapy's by-passed experiments. Nightmare Theater had been an early attempt to shock schizophrenics back into the objective world by rendering the fantasy world into which they were withdrawing uninhabitable. But the shattering and laceration of patients' emotions had proved to be too cruel and dubious a treatment.

For Dagenham's sake, the head of psychiatry had dusted off the 3D visual projectors and reconnected all sensory projectors. They decanted Foyle from his tank, gave him a reviving shot and left him in the middle of the floor. They removed the tank, turned off the lights and entered the concealed control booth. There they turned on the projectors.

Every child in the world imagines that its fantasy world is unique to itself. Psychiatry knows that the joys and terrors of private fantasies are a common heritage shared by all mankind. Fears, guilts, terrors and shames could be interchanged, from one man to the next, and none would notice the difference. The therapy department at Combined Hospital had recorded thousands of emotional tapes and boiled them down to one all-inclusive, all-terrifying performance in Nightmare Theater.

OYLE awoke, panting and sweating, and never knew that he had awakened. He was in the clutch of the serpent-haired, bloody-eyed Eumenides. He was pursued, entrapped, precipitated from heights, burned, flayed, bowstringed, vermin-covered, devoured. He screamed. He ran. The radar Hobble-Field in the Theater clogged his steps and turned them into the ghastly slow-motion of dream-running. And through the cacophony of grinding, shrieking, moaning, pursuing that assailed his ears muttered the thread of a persistent voice.

"Where is Nomad where is Nomad where is Nomad where is Nomad?"

"Vorga," Foyle croaked. "Vorga."

He had been inoculated by his own fixation. His own nightmare had rendered him immune.

"Where is Nomad? where have you left Nomad? what happened to Nomad? where is Nomad?"

"Vorga!" Foyle shouted. "Vorga."

In the control booth, Dagenham swore. The head of psychiatry, monitoring the projectors, glanced at the clock. "One minute and forty-five seconds, Saul. He can't stand much more."

"He's got to break. Give him the final effect."

They buried Foyle alive, slowly, inexorably, hideously. He was carried down into black depths and enclosed in stinking slime that cut off light and air. He slowly suffocated while a distant voice boomed:

"WHERE IS NOMAD?
WHERE HAVE YOU LEFT
NOMAD? YOU CAN ESCAPE
IF YOU FIND NOMAD.
WHERE IS NOMAD?"

But Foyle was back aboard Nomad in his lightless, airless coffin, floating comfortably between deck and roof. He curled into a tight fetal ball and prepared to sleep. He was content. He would escape. He would find Vorga.

"Impervious bastard!" Dagenham swore. "Has anyone ever resisted Nightmare Theater before, Fritz?"

"Not many. You're right-that's an uncommon man, Saul."

"He's got to be ripped open. To hell with any more of this. We'll try the Megal Mood next. Are the actors ready?"

"All ready."

"Then let's go."

There are six directions in which delusions of grandeur can run. The Megal (short for megalomania) Mood was therapy's dramatic diagnosis technique for establishing and plotting the particular course of megalomania.

Foyle awoke in a luxurious four-poster bed. He was in a bedroom, hung with brocade, papered in velvet. He glanced around curiously. Soft sunlight filtered through latticed windows. Across the room, a valet was quietly laying out clothes.

"Hey!" Foyle grunted.

THE valet turned. "Good morning, Mr. Fourmyle," he murmured.

"What?"

"It's a lovely morning, sir. I've laid out the brown twill and the cordovan pumps, sir."

"What's a matter, you?"

"I've -" The valet gazed at Foyle curiously. "Is anything wrong, Mr. Fourmyle?"

"What you call me, man?"

"By your name, sir."

"My name is—Fourmyle?"
Foyle struggled up in the bed.
"No, it's not. It's Foyle. Gully
Foyle, that's my name, me."

The valet bit his lip. "One moment, sir . . ."

He stepped outside and called.
A lovely girl in white came running into the bedroom and sat
down on the edge of the bed. She



took Foyle's hands and gazed into his eyes. Her face was distressed.

"Darling, darling, darling," she whispered. "You aren't going to start all that again, are you? The doctor swore you were over it."

"Start what again?"

"All that Gulliver Foyle nonsense about your being a common sailor and -"

"I am Gully Foyle. That's my name - Gully Foyle."

"Sweetheart, you're not. That's just a delusion you've had for weeks. You've been overworking and drinking too much."

"Been Gully Foyle all my life, me."

"Yes, I know, darling. That's the way it's seemed to you. But you're not. You're Geoffrey Fourmyle. The Geoffrey Fourmyle. You're - Oh, what's the sense in telling you? Get dressed, my love. You've got to come downstairs. Your office has been frantic."

Foyle permitted the valet to dress him and went downstairs in a daze.

The lovely girl, who evidently adored him, conducted him through a giant studio littered with drawing tables, easels and half-finished canvases. She took him into a vast hall filled with desks, file cabinets, stock tickers, clerks, secretaries, office personnel. They entered a lofty laboratory cluttered with glass and "You became convinced you chrome. Burners flickered and

hissed; bright-colored liquids bubbled and churned; there was a pleasant odor of interesting chemicals and odd experiments.

"What's all this?" Foyle asked. The girl seated Foyle in a plush armchair alongside a giant desk littered with interesting papers scribbled with fascinating symbols. On some, Foyle saw the name 'Geoffrey Fourmyle,' scrawled in an imposing, authoritative signature.

"There's some crazy kind of mistake, is all," Foyle said.

The girl silenced him. "Here's Doctor Regan. He'll explain."

A N impressive gentleman with a crisp, comforting manner came to Foyle, touched his pulse, inspected his eyes, and nodded in satisfaction.

"Good," he said. "Excellent. You are close to complete recovery, Mr. Fourmyle. Now you will listen to me for a moment, eh?"

Foyle nodded.

"You remember nothing of the past. You have only a false memory. You were overworked. You are an important man and there were too many demands on you. You started to drink heavily a month ago - No, no, denial is useless. You drank. You lost yourself."

"I _"

were not the famous Jeff Four-

myle, an infantile attempt to escape responsibility. You imagined you were a common spaceman named Foyle. Gulliver Foyle, yes? With an odd number —"

"Gully Foyle. AS: 128/127:006. But that's me. That's —"

"It is not you. This is you." Dr. Regan waved at the interesting offices they could see through the transparent glass wall. "You can only recapture the true memory if you discharge the old. All this glorious reality is yours, if we can help you discard the dream of the spaceman."

Dr. Regan leaned forward, his polished spectacles glittering hypnotically. "Reconstruct this false memory of yours in detail and I will tear it down. Where do you imagine you left the spaceship Nomad? How did you escape? Where do you imagine the Nomad is now?"

Foyle wavered before the romantic glamor of the scene which seemed to be just within his grasp.

"It seems me, I left Nomad out in -"

He stopped short.

A devil-face peered at him from the highlights reflected in Dr. Regan's spectacles . . . a hideous tiger mask with No mad blazoned across the distorted brow. Foyle stood up.

"Liars," he growled. "It's real, me. This here is phony. What happened to me is real. I'm real, me."

Saul Dagenham walked into the laboratory. "All right," he said. "Strike the set. It's a washout."

The bustling scene in laboraory, office and studio ended. The actors quietly disappeared without another glance at Foyle.

Dagenham gave Foyle his deadly smile. "Tough, aren't you? You're really unique. My name is Saul Dagenham. We've got five minutes for a talk. Come into the garden."

THE Sedative Garden atop the Therapy Building was a triumph of therapeutic planning. Every perspective, every color, every contour had been designed to placate hostility, soothe resistance, melt anger, evaporate hyseria, absorb melancholia and depression.

"Sit down," Dagenham said, pointing to a bench alongside a pool in which crystal waters tinkled. "I'll have to walk around a bit. Can't come too close to you. I'm 'hot.' D'you know what that means?"

Foyle shook his head sullenly. Dagenham cupped both hands around the flaming blossom of an orchid and held them there for a moment. "Watch that flower."

He paced up a path and turned suddenly. "You're right, of course. Everything that happened to you

is real - only what did happen?"
"Go to hell," Foyle growled.

"You know, Foyle, I admire you."

"Go to hell."

"In your own primitive way, you've got ingenuity and guts. I've been checking on you. That bomb you threw in the Presteign shipyards was lovely, and you nearly wrecked General Hospital getting the money and material together." Dagenham counted fingers. "You looted lockers, stole from the blind ward, stole drugs from the pharmacy, stole apparatus from the lab stockrooms."

"Go to hell, you."

"But what have you got against Presteign? Why'd you try to blow up his shipyard? They tell me you broke in and went tearing through the pits like a wild man. What were you trying to do, Foyle?"

"Go to hell."

Dagenham smiled. "If we're going to chat, you'll have to hold up your end better than that. Your conversation's getting monotonous. What happened to Nomad?"

"I don't know about Nomad, nothing."

"The ship was last reported over seven months ago. Are you the sole survivor? And what have you been doing all this time? Having your face decorated?"

"I don't know about Nomad, nothing."

"No, Foyle, that won't do. You show up with Nomad tattooed across your face. Freshly tattooed. Intelligence checks and finds you were aboard Nomad when she sailed. Foyle, Gulliver: AS:128/ 127:006, Mechanic's Mate, 3rd Class. As if all this isn't enough to throw Intelligence into a tizzy, you come back in a private launch that's been missing fifty years. Man, you're cooking in the reactor. Intelligence wants the answers to all these questions. And you ought to know how Cenral Intelligence butchers its answers out of people."

Foyle started.

DAGENHAM nodded as he saw his point sink home. "That's why I think you'll listen to reason. We want information, Foyle. I tried to trick it out of you; admitted. I failed because you're too tough; admitted. Now I'm offering you an honest deal. We'll protect you if you'll cooperate. If you don't, you'll spend five years in an Intelligence lab having information chopped out of you."

It was not the prospect of the butchery that frightened Foyle, but the thought of the loss of freedom. A man had to be free to avenge himself; to raise money and find Vorga again; to rip and tear and gut Vorga.

"What kind of deal?" he asked.
"Tell us what happened to No-

mad and where you left her."

"Why, man?"

"Why? Because of the salvage, man."

"There ain't nothing to salvage. She's a wreck, is all."

"Even a wreck's salvageable."

"You mean you'd jet way out there to pick up pieces? Don't joker me, man."

"All right," Dagenham said in exasperation. "There's the cargo."

"She was split wide open. No cargo left."

"It was a cargo you don't know about," Dagenham said confidentially. "Nomad was transporting platinum bullion to Mars Bank. Every so often, banks have to adjust accounts. Normally, enough trade goes on between planets so that accounts can be balanced on paper. The war's disrupted normal trade and Mars Bank found that Presteign owed them twentyodd million credits without any way of getting the money short of actual delivery. Presteign was delivering the money in bar platinum aboard the Nomad. It was locked in the purser's safe."

"Twenty million," Foyle whispered.

"Give or take a few thousand. The ship was insured, but that just means that the underwriters, Bo'ness and Uig, get the salvage rights and they're even tougher than Presteign. However, there'll be a reward for you. Say, twenty

thousand credits - lump sum."

"Twenty million," Foyle whispered again.

"We're assuming that an O.S. raider caught up with Nomad somewhere on course and let her have it. They couldn't have boarded and looted or you wouldn't have been left alive. This means that the purser's safe is still — Are you listening, Foyle?"

But Foyle was not listening. He was seeing twenty millions — not twenty thousand—twenty millions in platinum bullion as a broad highway to Vorga. No more petty thefts from lockers and labs; twenty millions for the taking and the razing of Vorga.

"Foyle!"

FOYLE awoke. He looked at Dagenham. "I don't know about Nomad, nothing," he said.

"What the hell's got into you now? Why're you dummying up again?"

"I don't know about Nomad, nothing."

"I'm offering a fair reward. A spaceman can go on a hell of a tear with twenty thousand credits — a one-year tear. What more do you want?"

"I don't know about Nomad, nothing."

"It's us or Intelligence, Foyle."

"You ain't so anxious for them to get me or you wouldn't be flipping through all this. But it ain't no use, anyway. I don't know about Nomad, nothing."

"You son of a -" Dagenham tried to repress his anger. He had revealed just a little too much to this cunning, primitive creature. "You're right, Foyle. We're not anxious for Intelligence to get you. But we've made our own preparations." His voice hardened. "You think you can dummy up and stand us off. You think you can leave us to whistle for Nomad. You've even got an idea of beating us to the salvage."

"No," Foyle said.

"Now listen to this. We've got a lawyer waiting in New York. He's got a criminal prosecution for piracy pending against you; piracy in space, murder and looting. We're going to throw the book at you. Presteign will get a conviction in twenty-four hours. If you've got a criminal record of any kind, that means a lobotomy. They'll burn out half your brain to stop you from ever jaunting again."

Dagenham stopped and glowered at Foyle. When Foyle shook his head, Dagenham continued.

"If you haven't got a record, they'll hand you ten years of what is laughingly known as medical treatment. We don't punish criminals in our enlightened age; we cure 'em - and the cure is worse than punishment. They'll stash you in a black hole in one of the cave hospitals. You'll be kept in permanent darkness and solitary confinement so you can't jaunte out. They'll go through the motions of giving you shots and therapy, but you'll be rotting in the dark. You'll stay there and rot until you decide to talk. So make up your mind."

"I don't know nothing about Nomad. Nothing!" Foyle said.

"All right," Dagenham spat. Suddenly he pointed to the orchid blossom he had enclosed with his hands. It was blighted and shriveled. "That's what's going to happen to you."

- ALFRED BESTER

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MAN OF DISTINCTION

By MICHAEL SHAARA

Being unique is a matter of pride—but being a complete mathematical impossibility?

Illustrated By DICK FRANCIS

of Thatcher Blitt did not come to the attention of a bemused world until late in the year 2180. Although Thatcher Blitt was, by the standards of his time, an extremely successful man financially, this was not considered real distinction. Unfortunately for Blitt, it never has been.

The history books do not re-

cessful merchants of the past unless they happened by chance to
have been connected with famous men of the time. Thus
Croesus is remembered largely
for his contributions to famous
Romans and successful armies.
And Haym Solomon, a similarly
wealthy man, would have been
long forgotten had he not also
been a financial mainstay of the

American Revolution and consorted with famous, if impoverished, statesmen.

So if Thatcher Blitt was distinct among men, the distinction was not immediately apparent. He was a small, gaunt, fragile man who had the kind of face and bearing that are perfect for movie crowd scenes. Absolutely forgettable. Yet Thatcher Blitt was one of the foremost businessmen of his time. For he was president and founder of that noble institution, Genealogy, Inc.

Thatcher Blitt was not yet 25 when he made the discovery which was to make him among the richest men of his time. His discovery was, like all great ones, obvious yet profound. He observed that every person had a father.

CARRYING on with this thought, it followed inevitably that every father had a father, and so on. In fact, thought Blitt, when you considered the matter rightly, everyone alive was the direct descendant of untold numbers of fathers, down through the ages, all descending, one after another, father to son. And so backward, unquestionably, into the unrecognizable and perhaps simian fathers of the past.

This thought, on the face of it not particularly profound,

He saw that since each man had a father, and so on and so on, it ought to be possible to construct the genealogy of every person now alive. In short, it should be possible to trace your family back, father by father, to the beginning of time.

And of course it was. For that was the era of the time scanner. And with a time scanner, it would be possible to document your family tree with perfect accuracy. You could find out exactly from whom you had sprung.

And so Thatcher Blitt made his fortune. He saw clearly at the beginning what most of us see only now, and he patented it. He was aware not only of the deep-rooted sense of snobbishness that exists in many people, but also of the simple yet profound force of curiosity. Who exactly, one says to oneself, was my forty-times-great-great-grandfather? A Roman Legionary? A Viking? A pyramid builder? One of Xenophon's Ten Thousand? Or was he, perhaps (for it is always possible), Alexander the Great?

Thatcher Blitt had a product to sell. And sell he did, for other reasons that he alone had noted at the beginning. The races of mankind have twisted and turned with incredible complexity over the years; the numbers of peo-



ple have been enormous.

With thirty thousand years in which to work, it was impossible that there was not, somewhere along the line, a famous ancestor for everybody. A minor king would often suffice, or even a general in some forgotten army. And if these direct ancestors were not enough, it was fairly simple to establish close blood kinship with famous men. The blood lines of Man, you see, begin with a very few people. In all of ancient Greece, in the time of Pericles, there were only a few thousand families.

Seeing all this, Thatcher Blitt became a busy man. It was necessary not only to patent his idea, but to produce the enormous capital needed to found a large organization. The cost of the time scanner was at first prohibitive, but gradually that obstacle was overcome, only for Thatcher to find that the government for many years prevented him from using it. Yet Blitt was indomitable. And eventually, after years of heart-rending waiting, Genealogy, Inc., began operations.

Within months, the very name of the company and its taut slogan, "An Ancestor for Everybody," became household words. There was but one immediate drawback. It soon be-

came apparent that, without going back very far into the past, it was sometimes impossible to tell who was really the next father in line. The mothers were certain, but the fathers were something else again. This was a ponderable point.

But Blitt refused to be discouraged. He set various electronic engineers to work on the impasse and a solution was found. An ingenious device which tested blood electronically through the scanner—based on the different sine waves of the blood groups—saved the day. That invention was the last push Genealogy, Inc., was ever to need. It rolled on to become one of the richest and, for a long while, most exclusive corporations in the world.

Yet it was still many years before Thatcher Blitt himself had
time to rest. There were patent
infringements to be fought, new
developments in the labs to be
watched, new ways to be found
to make the long and arduous
task of father-tracing easier and
more economical. Hence he was
well past sixty when he at last
had time to begin considering
himself.

He had become by this time a moderately offensive man. Surrounded as he had been all these years by pomp and luxury, by impressive names and extraordinary family trees, he had succumbed at last. He became unbearably name-conscious.

He began by regrouping his friends according to their ancestries. His infrequent parties were characterized by his almost Parliamentarian system of seating. No doubt, all this had been in Thatcher Blitt to begin with—it may well be, in perhaps varying quantities, in all of us—but it grew with him, prospered with him. Yet in all those years he never once inspected his own forebears.

You may well ask, was he afraid? One answers, one does not know. But at any rate, the fact remains that Thatcher Blitt, at the age of 67, was one of the few rich men in the world who did not know who exactly their ancestors had been.

A ND so, at last, we come to the day when Thatcher Blitt was sitting alone in his office, one languid hand draped vacantly over his brow, listening with deep satisfaction to the hum and click of the enormous operations which were going on in the building around him.

What moved him that day remains uncertain. Perhaps it was that, from where he was sitting, he could see row upon row of action pictures of famous men which had been taken from his time scanners. Or perhaps it was

simply that this profound question had been gnawing at him all these years, deeper and deeper, and on this day broke out into the light.

But whatever the reason, at 11:02 that morning, he leaped vitally from his chair. He summoned Cathcart, his chief assistant, and gave him the immortal command.

"Cathcart!" he grated, stung to the core of his being. "Who am I?"

Cathcart rushed off to find out.
There followed some of the most taut and fateful days in the brilliant history of Genealogy, Inc. Father-tracing is, of course, a painstaking business. But it was not long before word had begun to filter out to interested

people.

The first interesting discovery made was a man called Blott, in eighteenth century England. (No explanation was ever given for the name's alteration from Blott to Blitt. Certain snide individuals took this to mean that the name had been changed as a means to avoid prosecution, or some such, and immediately began making light remarks about the Blotts on old Blitt's escutcheon.) This Blott had the distinction of having been a wineseller of considerable funds.

This reputedly did not sit well with Thatcher Blitt. Merchants,

he snapped, however successful, are not worthy of note. He wanted ed empire builders. He wanted, at the very least, a name he had heard about. A name that appeared in the histories.

His workers furiously scanned back into the past.

Months went by before the next name appeared. In 9th century England, there was a wandering minstrel named John (last name unprintable) who achieved considerable notoriety as a ballad singer, before dying an unnatural death in the boudoir of a lady of high fashion. Although the details of this man's life were of extreme interest, they did not impress the old man. He was, on the contrary, rather shaken. A minstrel. And a rogue to boot.

There were shakeups in Genealogy, Inc. Cathcart was replaced by a man named Jukes, a highly competent man despite his interesting family name. Jukes forged ahead full steam past the birth of Christ (no relation). But he was well into ancient Egypt before the search began to take on the nature of a crisis.

JP UNTIL then, there was simply nobody. Or to be more precise, nobody but nobodies. It was incredible, all the laws of chance were against it, but there was, actually, not a single ancestor of note. And no way of

faking one, for Thatcher Blitt couldn't be fooled by his own methods. What there was was simply an unending line of peasants, serfs, an occasional foot soldier or leather worker. Past John the ballad-singer, there was no one at all worth reporting to the old man.

This situation would not continue, of course. There were so few families for men to spring from. The entire Gallic nation, for example, a great section of present-day France, sprang from the family of one lone man in the north of France in the days before Christ. Every native Frenchman, therefore, was at least the son of a king. It was impossible for Thatcher Blitt to be less.

So the hunt went on from day to day, past ancient Greece, past Jarmo, past the wheel and metals and farming and on even past all civilization, outward and backward into the cold primordial wastes of northern Germany.

And still there was nothing. Though Jukes lived in daily fear of losing his job, there was nothing to do but press on. In Germany, he reduced Blitt's ancestor to a slovenly little man who was one of only three men in the entire tribe, or family, one of three in an area which now contains millions. But Blitt's ancestor, true to form, was simply a member of

the tribe. As was his father before him.

Yet onward it went. Westward back into the French caves, southward into Spain and across the unrecognizable Mediterranean into a verdant North Africa, backward in time past even the Cro-Magnons, and yet ever backward, 30,000 years, 35,000, with old Blitt reduced now practically to gibbering and still never an exceptional forebear.

There came a time when Jukes had at last, inevitably, to face the old man. He had scanned back as far as he could. The latest ancestor he had unearthed for Blitt was a hairy creature who did not walk erect. And yet, even here, Blitt refused to concede.

"It may be," he howled, "it must be that my ancestor was the first man to walk erect or light a fire—to do something."

It was not until Jukes pointed out that all those things had been already examined and found hopeless that Blitt finally gave in. Blitt was a relative, of course, of the first man to stand erect, the man with the first human

brain. But so was everybody else on the face of the Earth. There was truly nowhere else to explore. What would be found now would be only the common history of mankind.

Blitt retired to his chambers and refused to be seen.

HE story went the rounds, as such stories will. And it was then at last, after 40,000 years of insignificance, that the name of Blitt found everlasting distinction. The story was picked up, fully documented, by psychologists and geneticists of the time, and inserted into textbooks as a profound commentary on the forces of heredity. The name of Thatcher Blitt in particular has become famous, has persisted until this day. For he is the only man yet discovered, or ever likely to be discovered, with this particular distinction.

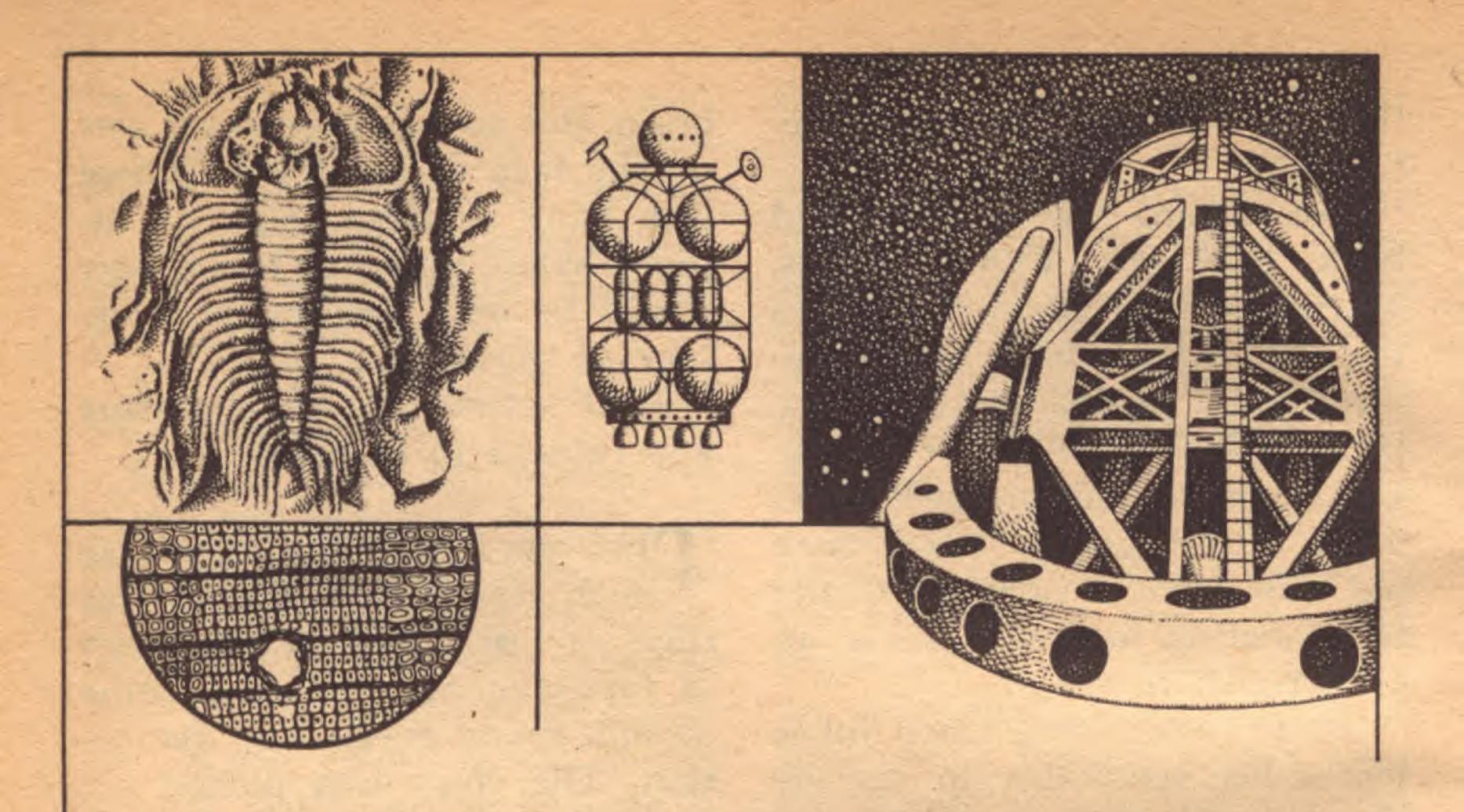
In 40,000 years of scanner-recorded history, the blood line of Blitt (or Blott) never once produced an exceptional man.

That record is unsurpassed.

—MICHAEL SHAARA

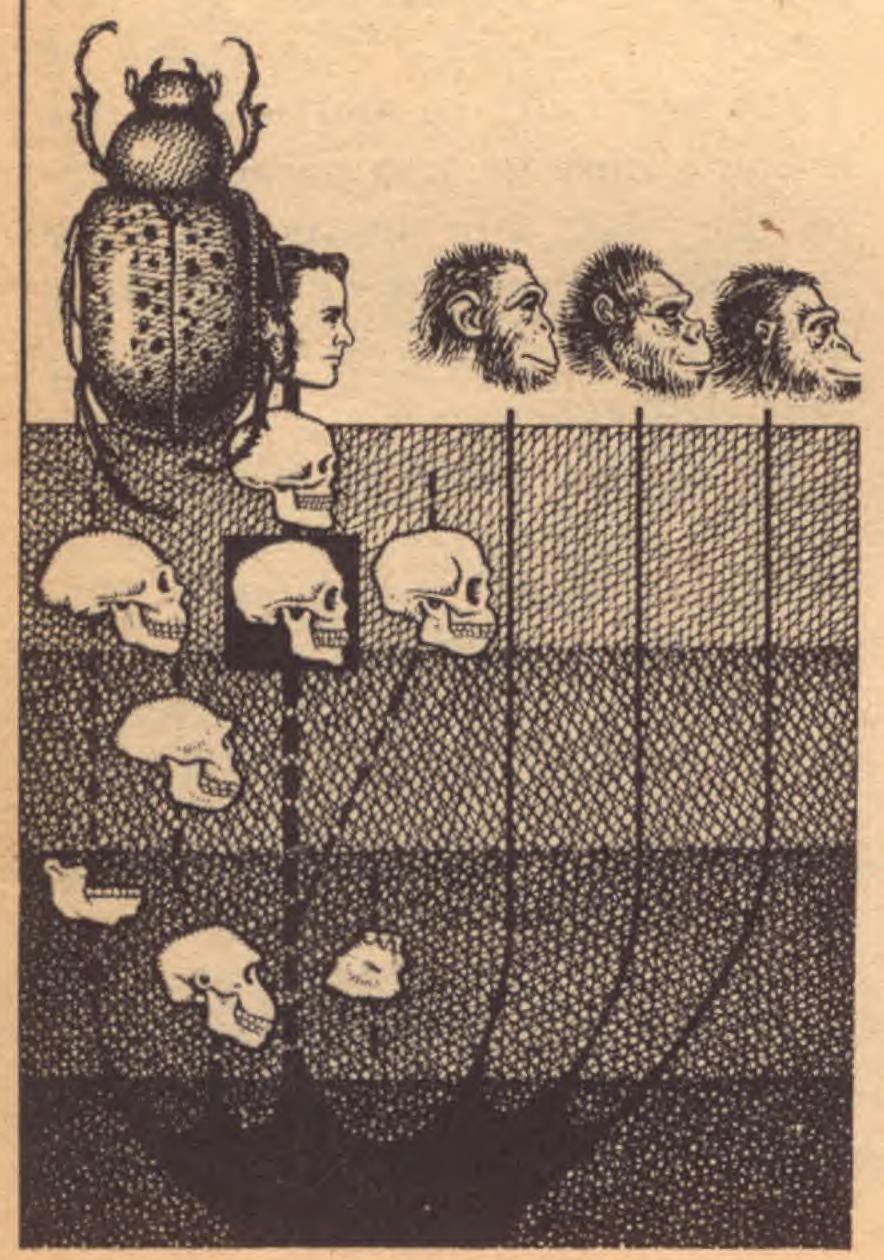
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for your information

By WILLY LEY



THE ANIMAL IN THE FOOTNOTES

ber, 1850, an unknown animal entered the annals of science in the most dignified and respectable manner possible. In the evening of that day, a meeting of the Royal Zoological Society of London took place and the main paper was read by Dr. Gideon Algernon Mantell, a famous geologist and paleontologist. Doctor Mantell had news from New Zealand, which had been

sent to him by his own son, who had been collecting.

The main news of the evening dealt with a bird.

A few years earlier, Walter Mantell had sent the remains of a bird to his father, stating that this must be the bird which was called Moho by the Maoris of the North Island and Takahe by the Maoris of the South Island.

The Maoris had said that this bird could not fly, even though it had wings. They had described it and said that they had eaten it while it was still around. After scientific examination of the remains it had been called *Notornis mantelli*.

But now, Dr. Mantell was able to announce, something could be added: Notornis mantelli was still alive. At any event, his son had secured the carcass of a freshly killed bird. It was about the size of a goose.

A S many readers may know, this Takahe was thought to be extinct since about 1900, but was discovered alive on the west shore of Lake Te Anau on the South Island. It is now as strictly protected as is humanly possible.

But Dr. Mantell had more news to tell that night:

It may not be irrelevant to add, that in the course of Mr. Walter Mantell's journey from Banks' Peninsula along the coast to Otago, he

learnt from the natives that they believed there still existed in that country the only indigenous terrestrial quadruped, except a species of rat, which there are reasonable grounds for concluding New Zealand ever possessed. While encamping at Arowenua in the district of Timaru, the Maoris assured him that about ten miles inland there was a quadruped which they called Kaureke, and that it was formerly abundant, and often kept by their ancestors in a domestic state as a pet animal. It was described as about two feet in length, with coarse grisly hair; and must have more nearly resembled the Otter or Badger than the Beaver or the Ornithorhynchus (platypus), which the first accounts seemed to suggest as the probable type. The offer of a liberal reward induced some of the Maoris to start for the interior of the country where the Kaureke was supposed to be located, but they returned without having obtained the slightest trace of the existence of such an animal; my son, however, expresses his belief in the native accounts, and that if the creature no longer exists, its extermination is of a very recent date.

This is the earliest printed statement in which the mysterious mammal is even mentioned. An earlier writer on New Zealand's natural history, Ernest Dieffenbach, M.D., the naturalist of the New Zealand Company, had stated in his book Travels in New Zealand (London, 1843) that "no terrestrial beast has been found wild in these Islands, nor do any appear to be known to the natives."

The fact is that the only native mammals of New Zealand are two bats. One of them is closely related to an Australian form; the other is typical for New Zealand only. Locally, they are distinguished as the long-tailed and the short-tailed bat, with the explanation that the long-tailed bat has short ears while the short-tailed bat is long-eared.

THE Maoris told that when they arrived in Ao-tea-roa ("long white cloud" or "long shining land," their name for New Zealand) from Hawa-iki (their original home, most probably the island of Raiatea, about 120 miles to the northwest of Tahiti) in the canoes Tainui, Takitimu, Te Arawa, Mata-atua, Kurhaupo and Tokomaru they brought dogs with them which they kept as livestock. The main wave of the Maori migration to New Zealand must have been around 1350 A.D., but the dog, now extinct, was still mentioned by Captain James Cook as one of the two mammals he saw. The other was a black rat which was rare even then the Maoris ate it, too.

I have to digress from Dr. Mantell's unknown "indigenous terrestrial quadruped" for a moment to say a little more about that black rat. No doubt it was there, for it even received a scientific name, Mus maorium, or Maori rat. The

Maori name for it was Kiore.

But one expert claimed around 1860 that he could not find a difference between the Maori rat and the common Pacific species of rat Mus exulans. And Alfred Russell Wallace points out in his once-famous book Island Life (London, 1892) that whenever a man caught a black rat and the Maoris jubilantly declared that this was a true Kiore (in the meantime, other European rats had arrived by ships from England, much against the wishes of everybody), it turned out to be either a European black rat or else an Australian rat which had arrived as a stowaway on ships from Australia.

The story of Dr. Mantell's unknown quadruped moved on to several other names. The name of the explorer in question is now in most books as Sir Julius von Haast, but he was born in Bonn on the Rhine (where his father was Burgomaster) as Johann Franz Julius von Haast. And he did not see New Zealand until the age of 36, when he arrived in Auckland on December 21st, 1858.

He became famous as a geologist. He discovered an important pass through the mountains of the South Island which still bears his name. He located coal and gold and founded the Philosophical Institute of Canterbury, New Zea-

land. But he kept telling friends that, because of his beautiful and strong voice, he had wanted to become an opera singer – presumably his dignified father had something to say about that ambition – and that he had played the violin in the symphony orchestra of Düsseldorf under the baton of Felix Mendelssohn.

Sir Julius learned a new name for the unknown mammal. The Maoris called it Waitoreke, or Waitoreki, or Waitoteke. I haven't been able to find out anywhere whether this name can be translated, but I found in Dieffenbach a glossary of Maori words and learned that waipa means river, waikeri means either swamp or rivulet, wairere means waterfall, waikare means clear water and waitangi (a place name) means noisy water.

Waitoreke obviously has something to do with water. Maybe the name just means "lives in water" or something like that.

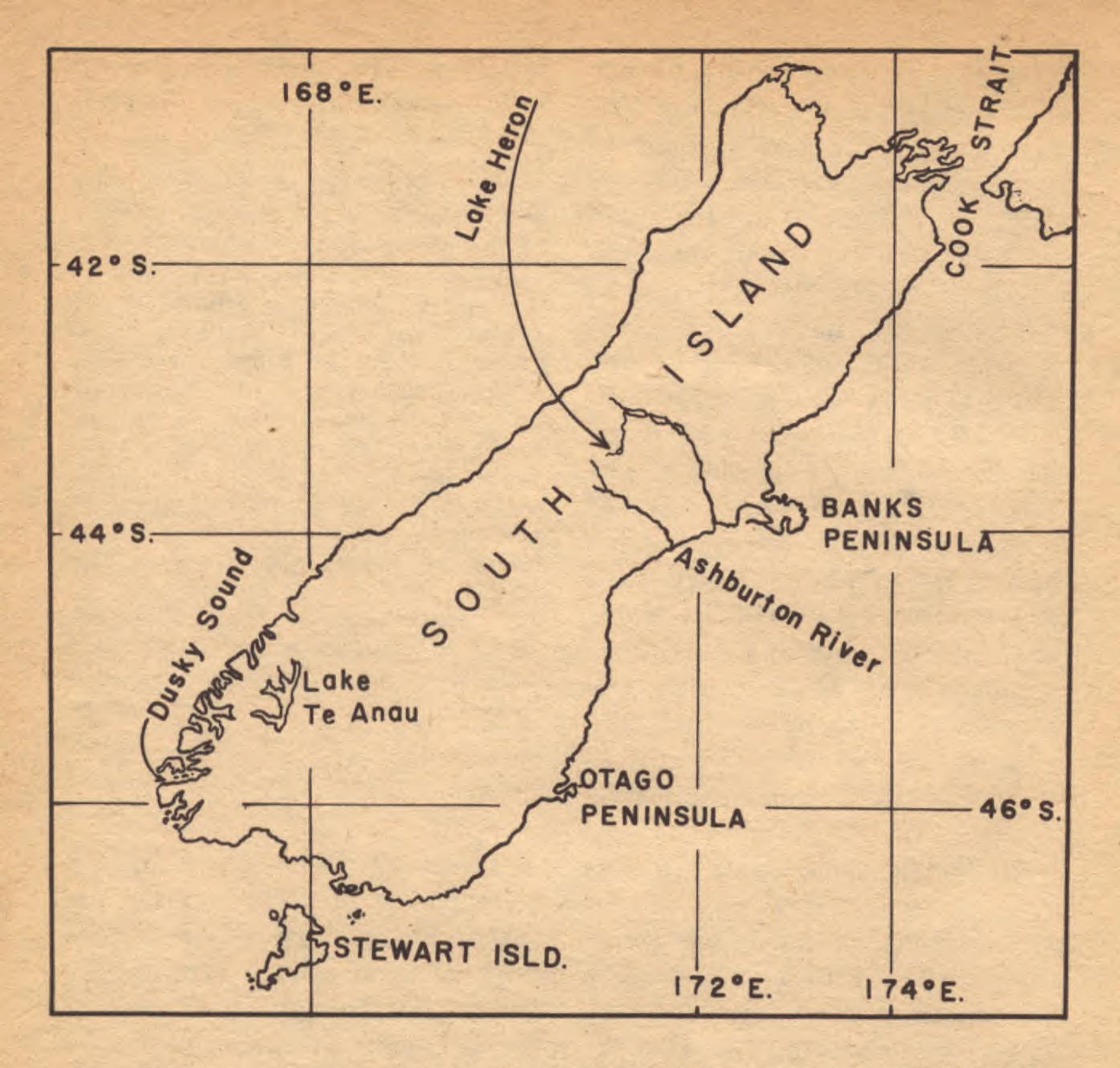
Ferdinand von Hochstetter embarked on the Novara for a lorg trip of exploration. He came to New Zealand and made friends with Dr. Julius von Haast. Two years after his return to Austria, von Hochstetter started to assemble his notes on New Zealand for a book and asked von Haast whether anything new could be

reported. The reply was printed in his book in a footnote reading:

My friend Haast writes to me about the Waitoreki under the date of the 6th of June 1861 as follows: "3500 feet above sea level I saw at the upper Ashburton River (South Island, Province of Canterbury), in an area where no human foot ever walked before me, its tracks on many occasions. The tracks resemble those of our European otter but are somewhat smaller. The animal itself was seen by two gentlemen who own a sheep ranch at the shore of Lake Heron in the neighborhood of the Ashburton River at an elevation of 2100 feet above sea level. They describe the animal as being of a dark brown color, of the same size as a large rabbit. They hit it with a whip; it emitted a whistling sound and disappeared quickly in the water along the reeds."

That footnote was the sum total that Dr. von Hochstetter (or rather Dr. von Haast) could report. Even at a later date, during the official Inaugural Address at the occasion of the founding of the Philosophical Institute of Canterbury, Sir Julius could not claim to have ever seen the animal. But he repeated that he had seen its tracks many times.

Meanwhile, the animal had made its appearance in another footnote. In 1855, a London publishing house printed a book by the Reverend Richard Taylor, entitled Te Ika A Maui, Or, New Zealand and its Inhabitants. The



footnote on p. 394 reads in full:

A man named Sevmour, of Otaki, stated that he had repeatedly seen an animal in the Middle Island, near Dusky Bay, on the south-west coast, which he called a musk-rat, from the strong smell it emitted. He said, its tail was thick, and resembled the ripe pirori, the fruit of the kie-kie, which is not unlike in appearance to the tail of a beaver. This account was corroborated by Tamihana te Rauparaha, who spoke

of it as being more than double the size of the Norway rat, and as having a large flat tail. A man named Tom Crib, who had been engaged in whaling and sealing in the neighborhood of Dusky Bay for more than twenty-five years, said he had not himself seen the beaver, but had several times met with their habitations, and had been surprised by seeing little streams dammed up, and houses like bee-hives erected on one side, having two entrances, one from above and the other below the dam. One of the Camerons, who

lived at Kaiwarawara, when the settlers first came to Wellington, stated that he saw one of these large rats and pursued it, but it took to the water, and dived out of sight.

THE two comments which may have to be made to clear up a few question marks in the reader's mind are that for a while the South Island was called Middle Island (the one now called Stewart Island was then named South Island), while the Norway rat mentioned is the common European brown rat, which can be of considerable size itself.

As time went on, reports about the Waitoreke became rarer and rarer. In other words there weren't any, and books about New Zealand or about natural history followed the style started by Ferdinand von Hochstetter: the Waitoreke began to dwell exclusively in footnotes.

But naturalists would have given almost anything to find out whether it lived in New Zealand lakes and rivers, too. For in the meantime, the facts of life, evolution, had been realized and a New Zealand mammal held high promises just because of its location.

The earliest known mammals were the monotremes, platypus and two types of echidna, known from Australia and New Guinea. They had survived there, along with hosts of mammals of the next higher type, the marsupials,

because their area had become separated from other land masses at a time when the marsupials were the highest mammals there were.

Now there was every indication that the land connection to New Zealand (via New Guinea) had broken down at an even earlier time. If there was an indigenous New Zealand mammal, it had to be very old and probably was a monotromelike platypus, sharing with it the habit of dwelling near water, but not necessarily looking like it.

And since New Zealand had preserved a reptile, the Hatteria or Sphenodon, which was most decidedly "pre-dinosaur" in age, a New Zealand mammal might even have a bodily organization which could be called "pre-mammal." In short, it might be the scientific find of the century—provided it could be found.

The area where it might be found could be reasonably well localized. All reports, with a single doubtful exception, had come from the South Island, more specifically the southern half of the South Island.

Walter Mantell heard his story on the east coast of the South Island, to the south of Banks' Peninsula. Sir Julius von Haast had seen the tracks in the interior fairly far to the south. And Lake Heron – it is just about 1½ miles

long and not entered on most maps — might be said to be just about the center of the South Island.

Dusky Bay, of course, is almost at the southern end and I might add that Takahe was once taken near Dusky Bay and that the most recent (but more than a century old) report of a small moa also came from that area.

STRANGELY enough, the very first report — if it is one — also came from Dusky Bay. Again I have to quote a footnote, this time from p. 476 of Wallace's Island Life.

The animal described by Captain Cook as having been seen at Pickersgill Harbour in Dusky Bay (Cook's 2nd Voyage, Vol. I, p. 98) may have been the same creature. He says: "A four-footed animal was seen by three or four of our people, but as no two gave the same description of it, I cannot say what kind it is. All, however, agreed that it was about the size of a cat, with short legs, and of a mouse color. One of the seamen, and he who had the best view of it, said it had a bushy tail, and was the most like a jackal of any animal he knew." It is suggestive that, so far as the points in which "all agreed" - the size and the dark color - this description would answer well to the animal so recently seen this is in reference to von Haast's Lake Heron story while the "short legs" correspond to the otter-like tracks, and the thick tail of an otter-like animal may well have appeared "bushy" when the

fur was dry. It has been suggested that it was only one of the native dogs; but as none of those who saw it took it for a dog, and the points on which they all agreed are not dog-like, we can hardly accept this explanation.

Sorry — this ends the story. The Waitoreke has not been found and the latest remark about it that I could find occurs in The New Zealand Nature Book by W. Martin, printed in Auckland, New Zealand, in 1930. It says there (for once not in a footnote), "Other than the two species of bats, New Zealand has no land mammals whatsoever, unless there be more truth than is generally believed in the persistent reports of a native otter."

MISSING INGREDIENT

Some ten years ago, I worked as a research engineer for a company in the instrument business. The bread and butter of the firm was radio-sondes for the Weather Bureau, those little instrument packages containing a kind of thermometer, a device for measuring air pressure and a third one for measuring humidity, all three being hitched up with a radio transmitter so that the readings taken by the instruments aloft can be received and recorded on the ground.

The company also published a

weekly or biweekly company newspaper. One day, the lady in charge cornered me at lunch, wondering aloud-and in the presence of four witnesseswhether I might not be persuaded to write something for the company paper. I said yes without having any idea what I might write for them, but talks with some of the assembly line inspectors and one or two junior engineers taught me that nobody in the whole plant and only one man in the laboratory (its director) had any idea of the history of the radio-sondes they were making busily every day.

So I dug into both company records and meteorological literature and came up with a threepart article of how the radiosonde had come into being. And while I was busily noting down events and dates, I found, to my own surprise, that the radio-sondes they began making in 1929 or thereabouts could have been manufactured as far back as 1914. Not all the component parts which were actually used had been available in 1914, but other components, which could have done the same job, had been at hand.

I am not trying to change the theme—quite the contrary—but I now have to mention that the first liquid-fuel rocket to lift itself off the ground did so in Massachu-

setts in 1926. And the first really large liquid-fuel rocket to work successfully was one of the early V-2 rockets; the date was October 3rd, 1942. But when you look at a liquid-fuel rocket, you also find that most components (or materials) had been around many years prior to those dates. It would actually have been possible to send a liquid-fuel rocket to an altitude of at least 30 miles half a century ago, in 1906.

The diagram shows a simplified cross section through a large liquid-fuel rocket of the type of V-2 or Viking. Let us begin at the top and see what the parts are and how they work.

The very nose of the rocket is conical, usually made of sheet steel, and it houses the instruments which constitute the "payload." As for the sheet steel, it became available in 1880 and the same year may be held to apply for recording meteorological instruments. Of course there would be no great difference if the skin were sheet iron instead of sheet steel and that is almost three centuries older.

NATURALLY, since the year we have in mind is 1906, these instruments could not have broadcast their findings; radio was in existence, but it had a long way to progress until it could be used for this purpose. However, it

Sheet steel (ca.1880) (sheet iron, ca. 1600, Bohemia) RECORDING METEOROLOGICAL INSTRUMENTS, 1880. PARACHUTE, first use 1785 NITROGEN (1774, Priestley, et al.) LIQUID OXYGEN (98.5% pure, Linde 1902) OR: NITRIC ACID, (Glauber 1640) ETHYL ALCOHOL, 75% (ca. 1200) OR: HYDRAZINE, (Curtius 1887) Centrifugal pumps, (ca. 1875) ROCKET MOTOR, sheet steel copper aluminum or (1890)GRAPHITE VANES (molded artificial graphite, E. G. Acheson, 1896)

would have been possible to eject the instrument package with the aid of a timing device and parachute it to the ground. The first recorded use of a parachute took place in 1785, when Monsieur Blanchard dropped a dog from the gondola of his balloon. (He tried it on himself in 1793, but Leonardo da Vinci had sketched this about 1510.) Of course there were timing devices and "infernal machines" around at the same time.

The next section below the nose cone holding the payload is usually the section containing the rocket instruments. What we use now did not exist in 1906, but an engineer could have rigged up a gyro, driven, say, by compressed nitrogen.

But if you just want a vertical or near-vertical flight, you do not need this section at all. That a liquid-fuel rocket can function without it and produce a fine vertical flight was once accidentally proved by an Aerobee rocket. The Aerobee has no "guidance," relying instead on what is called "arrow stability." But until this unforeseen event took place, everybody would have agreed that the rocket needed the push from the solid-fuel booster to acquire enough arrow stability.

Well, in this particular case, a valve misbehaved, the Aerobee began working, left its solid-fuel

booster behind in the launching rack and climbed peacefully to nearly 20 miles.

Next section in the rocket is the tank for the oxidizer. Big rockets like Viking and V-2 use liquid oxygen, available since 1902. Smaller rockets like the Aerobee use nitric acid, available for centuries.

The next tank is the fuel tank. Again the big rockets use 75 per cent ethyl alcohol, which Italian monks started distilling about 1200. Or you may prefer hydrazine, which sounds enormously "modern" but was made for the first time in 1887. The tanks themselves are, of course, sheet metal and though nitric acid is hard on metals, it would have been no real problem in 1906 to devise a tank which could have held nitric acid for an hour or so.

BELOW the fuel tanks, you have the rocket motor. It has a shape which simply did not exist in 1906. But its shape is not so difficult that it could not have been made then. As for the material, you could use sheet steel or sheet copper or sheet aluminum, which became available in 1890. For the metal-forming techniques of 1906, sheet copper might have been the best bet, since there was not much practice yet in the handling and forming of aluminum.

If that rocket had worked on hydrazine and nitric acid, there would have been no problem with ignition, for this is a so-called hypergolic combination which bursts into flame spontaneously when the two liquids touch each other. For an alcohol-oxygen rocket, ignition is required—and the device used is a fireworks pinwheel inserted into the motor through the exhaust nozzle. A fireworks pinwheel could have been bought in Nuremberg in 1650.

As for getting the fuels from the tanks into the rocket motor, the modern practice is to have high-strength hydrogen peroxide decompose into steam, which drives a turbine, which in turn drives the centrifugal pumps. Centrifugal pumps began to be built commercially in about 1875. High-strength hydrogen peroxide did not become available until much later, but an engineer might have rigged up a different method of driving the fuel pumps. Or else he might just have pressurized both the fuel and the oxidizer tank with compressed nitrogen.

In short, all the materials, including the fuels, for a vertical rocket shot into the stratosphere were available in 1906. The few things which were not directly available were within easy reach of the engineering methods of the time.

But, as we well know, nobody

even tried to build a liquid-fuel rocket in 1906. The fuels and materials were there. General engineering practice existed, too. So did the necessary mathematics to calculate whatever needed calculating. But it wasn't done. It couldn't be done because nobody had said that it could be done.

There was one ingredient missing and it happens to be the most important one. There was no theory.

ICEBERGS FOR LOS ANGELES

Somewhere, must have published the idea that Los Angeles might be supplied with drinking water by means of towing icebergs from Antarctica to Long Beach and allowing them to melt after they got there. Icebergs, being originally compacted snow, consist of fresh water; that much is certain. I don't know whether Los Angeles is short of drinking water to the extent of considering such plans. In fact, I don't even know how that proposal reads in detail.

All I know is that a reader asked me whether this idea is feasible at all or whether an iceberg, towed such a distance through equatorial seas, would melt en route. This is a question to which one can attempt to find an answer. It so happens that

there is some practical experience with the towing, not of icebergs, but of rather bulky objects.

The objects were large log rafts which were towed along the Pacific shore of the United States from Seattle to San Diego. The log rafts were more than 1000 feet long, with a width of around 60 feet. Their weight amounted to 15,000 tons and they had a draft comparable to a very large ocean liner, namely 28 feet. It took only one ocean-going tug with a 1000 horse-power engine to tow them; of course, since they did not make much speed, they needed about two weeks for the 1400-mile trip.

It is important to mention that the practical experience did not consist of just one such tow. If there had been only one, we might with much justification conclude that everybody happened to be very lucky. But in the course of a few years, 118 such rafts were assembled in Seattle and only three of the 118 failed to reach San Diego. Two of them came apart en route because the chains which held them together broke in several places. The third one had to be abandoned because it caught fire don't ask me how.

The main lesson learned from

all this was that large and bulky buoyant objects can be towed over long distances with comparatively little engine power if a slow speed is acceptable.

Now we can go back to the proposed towing of icebergs. If you travel along the 118th western meridian, you would reach the shore of Antarctica at about a southern latitude of 70 degrees. No land, not even an island, would get in the way along that meridian. The distance that would have to be traveled is, in round figures, 9000 miles. If you assume a towing speed of 5 mph, you'd cover a distance of 120 miles in 24 hours. The time needed to get the iceberg from Antarctica to Long Beach, California, would therefore be 75 days.

It is well known that a large mass of solid ice is rather resistant to melting, but whether an iceberg would last for approximately 45 days being towed through warm seas is something that can really be decided only by experiment. And what you do with the iceberg after you get it where you want it is another little problem I don't care to tackle at the moment.

-WILLY LEY



PRoblem

By ALAN E. NOURSE

No problem can compete with a PRoblem—and this one was right in the monster class!

Illustrated By GAUGHAN

he letter came down the slot too early that morning to be the regular mail run. Pete Greenwood eyed the New Philly special delivery photocancel with a dreadful premonition. The letter said:

Peter:

Can you come East chop-chop, urgent? Grdznth problem getting to be a PRoblem, need expert icebox salesman to get gators out of hair

fast. Yes? Math boys hot on this, citizens not so hot. Please come.

Tommy

Pete tossed the letter down the gulper with a sigh. He had lost a bet to himself because it had come three days later than he expected, but it had come all the same, just as it always did when Tommy got himself into a hole.

Not that he didn't like Tommy.

Tommy was a good PR-man, as PR-men go. He just didn't know his own depth. PRoblem in a beady Grdznth eye! What Tommy needed just now was a Bazooka Battalion, not a Public Relations man. Pete settled back resignedly in the Eastbound Rocketjet and paid off the bet to himself one drink at a time.

He had four gone and a fifth going when the fat lady up the aisle let out a scream. A huge saurian head had materialized out of nowhere and was hanging in air, peering about uncertainly. A scaly green body followed, four feet away, complete with long razor talons, heavy hind legs, and a whiplash tail with a needle at the end.

It floated upside down for a moment, legs thrashing. Then the head and body joined, executed a horizontal pirouette, and settled gently to the floor like an eight-foot circus balloon.

TWO rows down, a small boy let out a muffled howl and tried to bury himself in his mother's coat collar. An indignant wail arose from the fat lady. Someone behind Pete groaned aloud and quickly retired behind a newspaper.

The creature coughed apologetically. "Terribly sorry," he said in a coarse rumble. "So difficult to control, you know. Terribly "It's horrible of me," he panted.

sorry . . . " His voice trailed off as he lumbered down the aisle toward the empty seat next to Pete.

The fat lady gasped and an angry murmur ran through the cabin. "Sit down," Pete said to the creature. "Relax. Cheerful reception these days, eh?"

"You don't mind?" asked the creature, monstrously agape in surprise.

"Not at all." Pete put his briefcase on the floor.

At a distance, the huge beast had looked like a nightmare combination of large alligator and small tyrannosaurus. Now, close up, Peter could see that the "scales" were actually tiny wrinkles of satiny green fur. He knew, of course, that the Grdznth were mammals--"docile, peace-loving mammals," Tommy's PR-blasts had declared emphatically-but with one of them sitting about a foot away, Pete had to fight down a wave of horror and revulsion.

The creature was most incredibly ugly. Great yellow pouches hung down below flat reptilian eyes and a double row of long curved teeth glittered sharply. The creature was rolling its eyes wildly and puffing like a fat man on a steep hill.

"Misgauged?" said Pete, gripping the seat in spite of himself.

The Grdznth nodded sadly.



"I just can't help it, I always misgauge. Last time, it was the chancel of St. John's Cathedral. I nearly stampeded Morning Prayer—" He paused to catch his breath. "What an effort. The energy barrier, you know. Frightfully hard to make the jump—" He broke off sharply, staring out the port. "Are we going east?"

"I'm afraid so, friend."

"Oh, dear. I wanted to get to Florida."

"Well, you seem to have drifted through into the wrong airplane," said Pete. "Why Florida?"

The Grdznth looked at him reproachfully. "The Wives, of course. The climate is so much better and they musn't be disturbed, you know."

"Of course," said Pete. "In their condition. I'd forgotten."

"And then I'm told that things have been somewhat— unpleasant—in the East just now."

PETE thought of Tommy, redfaced and frantic, beating off the hordes of indignant citizens. "So I hear," he said. "How many more of you are coming through?"

"Oh, not many, not many at all. Only the Wives—half a million or so—and their spouses, of course." The creature clicked his talons nervously. "We haven't much more time, you know. Only a few more weeks, a few months at the most. If we couldn't have

stopped over here, I just don't know what we'd have done."

"Think nothing of it," said Pete indulgently. "It's been great having you."

The passengers within earshot stiffened, glaring at Pete. The fat lady was whispering indignantly to her seat companion. Junior had half emerged from the collar; he was busy sticking his tongue out at the Grdznth.

The creature shifted uneasily. "Really, I think—perhaps Florida would be better."

"Going to try it again right now? Don't rush off," said Pete.

"Oh, I don't mean to rush. It's been lovely, but—" Already the Grdznth was beginning to fade out.

"Try four miles down and a thousand miles southeast," said Pete.

The creature gave him a toothy smile, nodded once, and grew more indistinct. In another five seconds, the seat was empty. Pete leaned back, grinning to himself as the angry rumble rose around him like a wave. He was a Public Relations man to the core, but right now he was off duty. He poured another drink and chuckled all the way to New Philly. The passengers avoided him pointedly.

But as he walked down the gangway to hail a cab, he wasn't smiling so much. He was wonder-

ing just how high Tommy was hanging him this time.

THE lobby of the Public Relations Bureau was swarming like an upturned anthill when Pete disembarked from the taxi. He could almost smell the desperate tension of the place. He fought his way past scurrying clerks and preoccupied poll-takers toward the executive elevators.

On the newly finished seventeenth floor, Tommy Heinz was pacing the corridor like a father in labor. Tommy had lost weight since Pete had last seen him. His ruddy face was paler, his hair thin and ragged, as though chunks had been torn out from time to time. He saw Pete step off the elevator, and ran forward with open arms.

"Thank God you came!" he groaned. "I thought you'd never call. I was afraid you'd let me down—"

"Me?" said Pete. "I'd never let down a pal."

The sarcasm didn't dent Tommy. He led Pete through the anteroom into the plush director's office, thrusting a drink into his hand and bouncing about like a nervous sparrow. His words were tumbling out like a waterfall. He looked as though one gentle shove might send him yodeling down Market Street in his underdrawers.

"Hold it," said Pete. "Relax. I'm not going to leave for a while yet. Your girl screamed something about a Senator as we passed through. Did you hear her?"

Tommy gave a violent start. "Senator!" He flipped a desk switch. "What Senator is that?"

"Senator Stokes," the girl said wearily. "He had an appointment. He's ready to have you fired."

"All I need now is a Senator. What does he want?"

"Guess," said the girl.

"Oh. That's what I was afraid of. Can you hold him?"

"They swept around him last night and dusted him off this morning. His appointment was for yesterday, remember?"

"Remember! Of course I remember. Senator Stokes—something about a riot in Boston." Tommy started to flip the switch, then added, "See if you can get Charlie down here with his giz."

He turned back to Pete with a frantic light in his eye. "Good old Pete. Just in time. Eleventh-hour reprieve. Have another drink, have a cigar—do you want my job? It's yours. Just speak up."

"I fail to see," said Pete, "why you had to drag me all the way from L. A. to have a cigar. I've got work to do."

"Selling movies, right?"
"Check."

"To people who don't want to buy them, right?"

"In a manner of speaking," said Pete testily.

"Considering some of the movies you've been selling, you should be able to sell anything to anybody, any time, at any price."

"Please. Movies Are Getting Better by the Day."

"Yes, I know. And the Grdznth are getting worse by the hour. They're coming through in battalions—a thousand a day! The more Grdznth come through, the more they act as though they own the place. Not nasty or anything—it's that infernal politeness that the people hate most, I think. Can't get them mad, can't get them into a fight—but they do just as they please, and go anywhere they please, and if the people don't like it, the Grdznth' go right ahead anyway."

Pete pulled at his lip. "Any violence?"

Tommy gave him a long look. "So far, we've kept it out of the papers, but there have been some incidents. Didn't hurt the Grdznth a bit—they're ultra-pacifists, but they carry personal protective fields around with them, activated, a little point they didn't bother to tell us about. Anybody who tries anything fancy gets thrown like a bolt of lighting hit him. Rumors are getting wild—people are saying they can't

be killed, that they're just moving in to stay."

Pete nodded slowly. "Are they?"

"I wish I knew. I mean for sure. The psych-docs say no—the Grdznth agreed to leave at a specified time, they say, and something in their cultural background makes them stick strictly to their agreements. But that's just what the psych-docs think and they've been known to be wrong."

"And the appointed time?"

OMMY spread his hands helplessly. "If we knew, you'd still be in L. A. Roughly six months and four days-plus or minus a month or so for the time differential. That's strictly tentative, according to the math boys. It's a parallel universe, one of several thousand already explored, according to the Grdznth scientists working with Charlie Karns. Most of the parallels are analogous and we just happen to be anthropologically analogous to the Grdznth, a point we've omitted from our PR-blasts. They have an eight-planet system around a hot sun which is going to get lots hotter any day now.

Pete's eyes widened. "Nova?"

"Apparently. Nobody knows how they predicted it, but they did. Spotted it several years ago, so they've been romping through parallel after parallel, trying to

find one they can migrate to. They found one, sort of a desperation choice. It's cold and arid and full of impassable mountain chains. With an uphill fight, they can make it support a fraction of their population."

Tommy shook his head helplessly. "They picked a very sensible system for getting a good strong Grdznth population on the new parallel as fast as possible. Picked the males for brains, education and adaptability. The females were largely chosen according to how pregnant they were."

Pete grinned. "Grdznth in utero. There's something poetic about it."

"Just one hitch," said Tommy,
"The girls can't gestate in that
climate—at least not until they've
been there long enough to get
their glands adjusted. Seems we
have just the right climate for
gestating Grdznth, even better
than at home. So they came begging for permission to stop here,
on the way through, to rest and
parturate."

"So Earth becomes a glorified incubator." Pete got to his feet and refilled his glass thoughtfully from the bar at the end of the room. "This is all very touching, but it just doesn't wash. If the Grdznth are so unpopular here, why did we let them in in the first place?" He looked nar-

rowly at Tommy. "To be very blunt—what's the parking fee?"

"Plenty," said Tommy heavily.

"That's the trouble. The fee is so high, Earth just can't afford to lose it. Charlie Karns'll tell you why."

CHARLIE KARNS from Math Section was an intense skeleton of a man with a long pointed jaw and a long white coat drooped over his shoulders like a shroud. In his arms, he clutched a small black box.

"It's this parallel universe business, of course," he explained
to Pete, with Tommy beaming
over his shoulder. "The Grdznth
can cross through. They've been
able to do it for a long time. According to our figuring, this must
involve complete control of mass,
space and dimension, all three.
And time comes into one of the
three—we aren't sure which."

The mathematician set the black box on the desk and released the lid. Like a jack-in-the-box, two small white plastic spheres popped out and began chasing each other about in the air six inches above the box. Presently a third sphere rose up from the box and joined in the fun.

Pete watched it until his head began to spin. "No wires?"

"Strictly no wires," said Charlie glumly. "No nothing." He closed

the box with a click. "This is one of their children's toys. Among other things, it takes null-gravity to work."

Pete sat down, rubbing his chin. "I'm beginning to see. They're teaching you this?"

Tommy said, "They're trying to. He's been working for weeks with their top mathematicians—him and a dozen others. How many computers have you burned out, Charlie?"

"Four. There's a differential factor and we can't spot it. They have the equations, all right. It's a matter of translating them into constants that make sense. But we haven't yet cracked the differential."

"And if you do, then what?"

Charlie took a deep breath. "We'll have interdimensional control—a practical, utilizable transmatter. We'll have null-gravity—which means the greatest advance in power utilization since fire was discovered. It might give us the opening to a concept of time travel that makes some kind of sense. And power! If there's an energy differential of any magnitutude—"He shook his head sadly. "Then what?" the man says."

"We'll also know the time differential," Tommy cut in hopefully, "and how long the Grdznth gestation period will be."

"It's a fair exchange," said

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Charlie. "We keep them until the girls have their babies. They teach us the ABCs of space, mass and dimension."

Pete nodded. "That is, if you can make the people put up with them for another six months or so."

Tommy sank back in his chair. "In a word—yes. So far, we've gotten nowhere at a thousand miles an hour."

CAN'T do it!" the cosmetician wailed, hurling himself down on a chair and burying his face in his hands. "I've failed."

The Grdznth sitting on the stool looked regretfully from the cosmetician to the Public Relations men. "I say— I am sorry ..." His coarse voice trailed off as he peeled a long strip of cake makeup off his satiny green face.

Pete Greenwood stared at the sobbing cosmetician. "What's eating him?"

"Professional pride," said Tommy. "He can take twenty years off the face of any woman in Hollywood, but he can't get to first base with Gorgeous over there. This is only one thing we've tried," he added as they moved on down the corridor. "You should see the field reports. We've tried selling the advances Earth will have, the wealth, the power. No dice. The man in the street

reads our PR-blast and then looks up to see one of the nasty things staring over his shoulders at the newspaper."

"So you can't make them beautiful," said Pete. "Can't you make them cute?"

"With those teeth? Those eyes? Ugh."

"How about the 'jolly company' approach?"

"Tried it. There's nothing jolly about them. They pop out of nowhere, anywhere. In church, in bedrooms, in rush-hour traffic through Lincoln Tunnel—look!"

Pete peered out the window at the traffic jam below. Cars were snarled for blocks on either side of the intersection. A squad of traffic cops was converging angrily on the center of the mess, where a stream of green reptilian figures seemed to be popping out of the street and lumbering through the jammed autos like General Sherman tanks.

"Ulcers," said Tommy. "City traffic isn't enough of a mess as it is. And they don't do anything about it. They apologize profusely, but they keep coming through." The two started on for the office. "Things are getting to the breaking point. The people are wearing thin from sheer annoyance— to say nothing of the nightmares the kids are having and the trouble with women fainting."

The signal light on Tommy's

desk was flashing scarlet. He dropped into a chair with a sigh and flipped a switch. "Okay, what is it now?"

"Just another Senator," said a furious male voice. "Mr. Heinz, my arthritis is beginning to win this fight. Are you going to see me now or aren't you?"

"Yes, yes, come right in!" Tommy turned white. "Senator Stokes. I'd completely forgotten—"

THE SENATOR didn't seem to like being forgotten. He walked into the office, looked disdainfully at the PR-men and sat on the edge of a chair, leaning on his umbrella.

"You have just lost your job," he said with an icy edge to his voice. "You may not have heard about it yet, but you may take my word for it. I personally will be delighted to make the necessary arrangements, but I doubt if I'll need to. There are at least a hundred Senators in Washington who are ready to press for your dismissal, Mr. Heinz—and there's been some off-the-record talk about a lynching. Nothing official, of course."

"Senator-"

"Senator be damned. We want somebody in this office who can manage to do something."

"Do something! You think I'm a magician? I can just make them vanish? What do you want me to do?"

The Senator raised his eyebrows. "You needn't shout, Mr. Heinz. I am not the least interested in what you do. My interest is focused completely on a collection of five thousand letters, telegrams and visiphone calls I've received in the past three days alone. My constituents, Mr. Heinz, are making themselves clear. If the Grdznth do not go, I go."

"That would never do, of course," said Pete.

The Senator gave Pete a cold, clinical look. Then he asked Tommy, "Who is this person?"

"An assistant on the job," Tommy said quickly. "A very excellent PR-man."

The Senator sniffed audibly. "Full of ideas, no doubt."

"Brimming," said Pete.

"Enough ideas to get your constituents off your neck for a while, at least."

"Indeed?" A warmer look came into the Senator's eyes. Tommy swallowed hard and tried to get his cigar lighted.

"Indeed," said Pete. "Tommy, how fast can you get a PR-blast to penetrate? How much medium do you control?"

"Plenty," Tommy gulped.

"And how fast can you sample response and analyze it?"

"We can have prelims six hours

after the PR-blast is launched. For God's sake, man, if you have something, tell us! Don't keep us sweating!"

PETE STOOD up, facing the Senator. "Everything else has been tried, but it seems to me one important factor has been missed, one that will take your constituents by the ears." He looked at Tommy pityingly. "You've tried to make them beautiful, but they aren't beautiful. And you've tried to make them lovable, but they aren't lovable. There's one thing they are, though —at least half of them."

Tommy's jaw sagged. "Pregnant," he said.

"Now see here," spluttered the Senator. "If you're trying to make a fool of me to my face—"

"Sit down and shut up," said Pete. "If there's one thing every human being reveres, my friend, it's motherhood. We've got several hundred thousand pregant Grdznth just waiting for all the little Grdznth to arrive—and nobody's given them a side glance." He turned to Tommy. "Get some copywriters down here and a Grdznth obstetrician or two. We're going to put together a PR-blast that will twang the people's heartstrings like a billion harps."

The color was back in Tommy's cheeks and the Senator was forgotten as a dozen intercom switches began snapping. "We'll need TV hookups and plenty of newscast space," Tommy said eagerly. "Maybe a few photographs—do you suppose baby Grdznth are lovable?"

"They probably look like salamaders," said Pete. "But say anything you want. We're going to get across the sanctity of Grdznth motherhood, my friend, and anything goes."

"It's genius," chortled Tommy. "Sheer genius."

"If it sells," the Senator added dubiously.

"It'll sell," Pete said. "The question is: for how long?"

THE PLANNING was pure precision. Nothing sudden, harsh, or crude-but slowly, in a broadcast comment here or a newspaper story there, the emphasis began to shift from Grdznth in general to Grdznth as mothers. A Rutgers professor found his TV discussion on "Motherhood As An Experience" suddenly shifted from 6:30 Monday evening to 10:30 Saturday night. Copy rolled by the ream from Tommy's office, refined copy, hypersensitively edited copy, finding its way into the light of day through devious channels.

Three days later, a Grdznth miscarriage threatened and was averted. It was only a page four

item, but it was a beginning.

Determined movements to expel the Grdznth faltered, trembled with indecision. The Grdznth were ugly, they frightened little children, they were a trifle overbearing in their insufferably stubborn politeness—but in a civilized world, you just couldn't turn pregnant girls out in the rain.

Not even Grdznth girls.

By the second week, the blast was going at full tilt.

In the Public Relations Bureau building, machines worked on into the night. As questionnaires came back, spot candid films and street-corner interview tapes ran through the projectors on a twenty-four-hour schedule. Tommy Heinz grew thinner and thinner, while Pete nursed sharp post-prandial stomach pains.

"Don't start thinking," he warned on the morning the third week started. "If we start thinking now, we're lost. Just react, feed the stuff into the machines—"

"But why don't the people respond?" Tommy plaintively asked. "Haven't they got any feelings? The blast is washing over them like a wave and there they sit!" He punched the private wire to Analysis for the fourth time that morning. He got a man with a hag-ridden look in his eye. "How soon?"

"You want yesterday's rushes?"

"What do you think I want?

Any sign of a lag?"

"No lag yet. Last night's panel drew like a magnet. The 'D-Date' tag you suggested has them by the nose."

"How about the President's talk?"

"He should be campaigning."

Tommy mopped his forehead with his shirtsleeve. "Okay. Now listen: we need a special run on all the response data we have to date for tolerance levels. Got that? How soon can we have it?"

Analysis shook his head. "We could only make a guess with the data to date."

"Fine," said Tommy. "Make a guess."

"Give us three hours," said Analysis.

"You've got thirty minutes. Get going."

SWIVELING BACK to Pete, Tommy rubbed his hands eagerly. "It's starting to sell, boy. I don't know how strong or how good, but it's starting to sell! With the tolerance levels to tell us how long we can expect this program to quiet things down, we can give Charlie a deadline to crack his differential factor, or it's the axe for Charlie."

Pete grunted and sank down behind the desk thoughtfully. Tommy chuckled to himself and paced the room in an overflow of nervous energy. "And what do we get? A revolutionized world! Open shafts instead of elevators. A quick hop to Honolulu for an afternoon on the beach and back in time for supper. A hundred miles to the gallon for the Sunday driver. Why, when people begin seeing what the Grdznth are giving us, they'll welcome them with open arms."

"Hmmmm," said Pete.

"Well, why won't they? The people just didn't trust us, that was all. What does the man in the street know about transmatters? Nothing. But give him one and then try to take it away—"

"Yeah, yeah," interrupted Pete.
"It sounds great. It also stinks."

Tommy blinked at him. "You crazy? What stinks?"

Pete jammed his hands into his pockets. "This whole setup. Do you realize where we're standing in this thing? We're out on a limb—way out. We're fighting for time—time for Charlie and his gang to crack their puzzle, time for the Grdznth girls to gestate. But what are we hearing from Charlie?"

"Well, it's—it's a difficult problem. Charlie can't just—"

"That's right," said Pete. "Nothing is what we're hearing from Charlie. We've got no transmatter, no null-G, no power, nothing except a whole lot of Grdznth

and more coming through just as fast as they can. I'm just beginning to wonder what the Grdznth are giving us."

"Well, they can't gestate for-

"Maybe not, but I've still got a burning urge to talk to Charlie. I have a feeling they're going to be gestating a little too long."

THEY PUT through the call to math, but Charlie wasn't answering. "Sorry," the operator said. "Nobody's gotten through there for three days."

Three days?" cried Tommy. "What's wrong? Is he dead?

"Couldn't be. They burned out two more machines last night. Killed the switchboard power for twenty minutes."

"Get him on the wire," said Tommy. "That's orders."

The operator sighed unhappily. "Yes, sir. But they want you in Analysis."

Analysis was a shambles. Paper and tape were piled kneedeep on the floor. The machines clattered wildly, coughing out reams of paper to be gulped by other machines. In a corner office, they found their man, pale but jubilant.

"The program," said Tommy. "How's it going?"

"You can count on the people staying happy for at least another five months." He hesitated an instant. "If they see some baby Grdznth at the end of it all."

There was dead silence in the room. "Baby Grdznth," Tommy said finally. "And if it happens to be six months?"

Analysis drew a finger across his throat.

"What are we going to do?" Tommy's hands were shaking.

"We're going to go find him," Pete declared.

MATH SECTION was like a tomb. The machines were silent. In the office at the end of the room, they found an unshaven Charlie grimly splitting a bottle with a very smug-looking Grdznth. The bottle was floating gently about six feet above the desk. So were the Grdznth and Charlie.

"We've been trying to get you for hours. The operator—"

"I know, I know." Charlie waved a hand disjointedly. "I told her to go away. I told the rest of the crew to go away. Everybody."

"Then you cracked the differential?"

Charlie tipped an imaginary hat toward the Grdznth. "Spike cracked it. Spike is a sort of Grdznth Fermi." He tilted the bottle up and rolled his head under it. "Now why don't you go away, too?"

Tommy turned purple. "We've got five months," he said hoarsely. "Do you hear me? If they aren't going to have their babies in five months, we're dead men."

Charlie chuckled. "Five months, he says. We figured the babies to come in about three months—right, Spike? Not that it'll make much difference to us." Charlie sank slowly down to the desk. He wasn't laughing any more. "We're never going to see any Grdznth babies. It's going to be a little too cold for that."

Pete stared at the math man. "What else did you find?"

"The energy factor," Charlie mumbled. "Nobody thought of that, except in passing. Should have, though, long ago. Two completely independent universes, obviously two energy systems. Incompatible. We were dealing with mass, space and dimension— but the energy differential was the important one."

"What about the energy?"

"We're loaded with it. Supercharged. Packed to the breaking point and way beyond." Charlie scribbled frantically on the desk pad. "Look, it took energy for them to come through—immense quantities of energy. Every one that came through upset the balance, distorted our whole energy pattern. And they knew from the start that the differential was all on their side—a million of them unbalances four billion of us. All they needed to overload us completely was time for enough crossings."

"And we gave it to them." Pete sat down slowly, his face green. "Like a rubber ball with a dent in the side. Push in one side, the other side pops out. And we're the other side. When?"

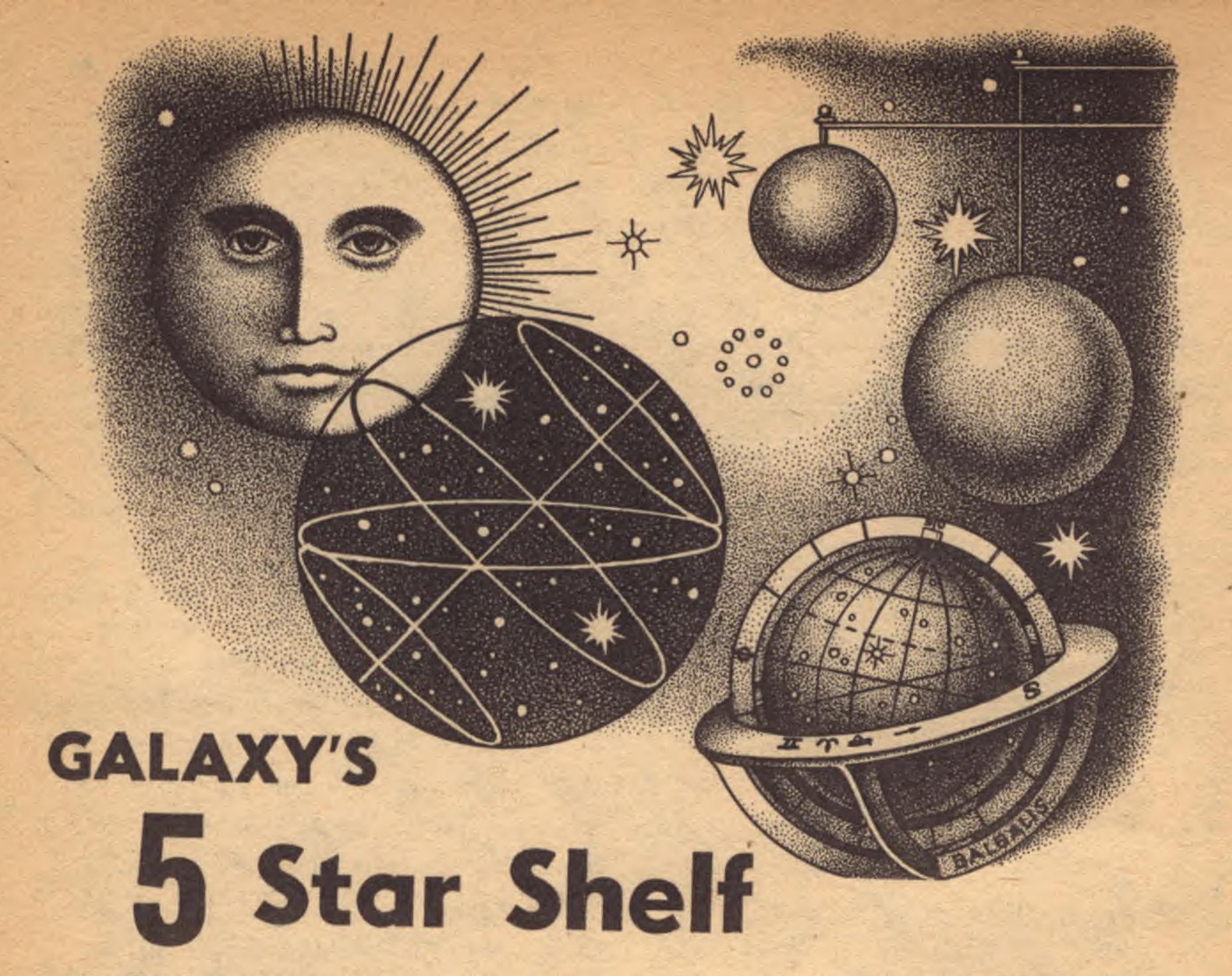
"Any day now. Maybe any minute." Charlie spread his hands helplessly. "Oh, it won't be bad at all. Spike here was telling me. Mean temperature is only 39 below zero, lots of good clean snow, thousands of nice jagged mountain peaks. A lovely place, really. Just a little too cold for Grdznth. They thought Earth was much nicer."

"For them," whispered Tommy. "For them," Charlie said.

-ALAN E. NOURSE

Next Month . . .

THE MAN WHO ATE THE WORLD by Frederik Pohl — an extraordinary novelet that will probably become one of your all-time science fiction favorites. Read it and see for yourself!



THE POWER by Frank M. Robinson. J. M. Lippincott Co., Phila., \$3.00

F YOU like to curl up with a good mystery, take a good look at the people around you—you might not be able to uncurl! Robinson has come up with a new slant on homo superior. He is not the social-conscious "Baldy" of Padgett-Kuttner or the masochistic Odd John of Stapledon. Who says he must stick out like a sore thumb? Robinson, whose skill in yarn-spinning grows in leaps, envisages superman as a

master of camouflage, all things to all men — and all women, too. Neither is he a social being, but rather quite a bit of a monster, a cruel one at that.

Professor Wm. Tanner, anthropologist and chairman of a Navy-subsidized committee testing human endurance, has himself a problem to solve. Someone on his committee of nine is superman. Unfortunately, all too soon his committee at the mid-Western university is reduced to eight and he is reduced to hiding, because homo supe has destroyed the sole member who could expose his

identity and has planted evidence pointing to Tanner. From that point on, Tanner becomes the defenseless rabbit in a harrowing chase that will have you biting your nails.

If you can guess the ending, you're a better unraveler than I proved to be.

TWO RUBLES TO TIMES SQUARE by Guy Richards. Duell, Sloan & Pearce, N.Y.: Little, Brown & Co., Boston, Toronto, \$3.50

RICHARDS poses an ingenious situation. Two divisions of Russian infantry, parts of a Special Corps, take over Manhattan Island from Canal Street south. They have sneaked into the Narrows, past Quarantine, in American lend-lease Liberty ships and tied up without challenge. With hardly a shot being fired, they have managed to subdue the sleepy populace before the Sun is fully up.

But what have they to gain by putting their heads into the American eagle's beak?

True, they have seized thousands of hostages as well as the financial capital, Wall Street, but they are in effect hostages themselves. Moscow has disowned the Corps, but of course they would have in any event, since they Inc. have committed an act of war. The above hefty list of con-

Washington is set to eject the invaders, but pressure of opinion stops the Pentagon's hand because it just might be true that the Special Corps has pulled a beaut of a doublecross on the Kremlin.

Sound like a solid foundation for an exciting invasion yarn with a brand-new slant? It is - only something happens to it about two-thirds through. Action turns to talk, talk to philosophy and philosophy to a conclusion that I just can't see nohow.

THE FABULOUS FUTURE, introduction by the Editors of Fortune. E. P. Dutton & Co. N. Y., \$3.50

RANKLY, I didn't dare put the list of authors up on top, where they belong. You can well understand when I tell you that they are David Sarnoff, RCA Chairman; John von Neumann, AEC member; George Meany, Pres. AFL-CIO; Nathan M. Pusey, Pres. Harvard U.; Chief Justice Earl Warren; Crawford H. Greenwalt, Pres. du Pont Co.; George M. Humphrey, Sec. of Treas.; Adlai Stevenson, youknow-who; Robert E. Sherwood, playwright; Charles P. Taft, Fed. Council of Churches; and Henry R. Luce, Editor-in-chief, Time,

tributors was asked by Fortune to speculate on what changes the year 1980 would bring, mainly in their individual fields. I guess that the readers of Fortune would declare their prognostications wild. I am sure you will agree that they most likely err on the side of caution.

It is unusual, though, to see such an array of talent attempting to take over the forte of the S-F writer: logical extrapolation.

THE GOLDEN KAZOO by John G. Schneider. Rinehart & Co., Inc. New York, \$3.00

SINCE this is an election year, Schneider's book is of more than passing interest. It concerns itself with the 1960 election and the manner in which the admen have taken over by that time. Candidates are products to be sold and the campaigns are carried out on a strict merchandising level. Of course, Kornbluth and Pohl went considerably further in Gravy Planet, but Kazoo fills in some of the chinks.

Blade Reade is the dynamic, ulcer-ridden advertising executive master-minding one party's effort to sell Henry Clay Adams, a name tailor-made to draw both North and South to their banner. The book is an amusing account of Reade's slick campaign, but there's nothing amusing in its

plausibility, which is downright grisly.

ELECTRONICS by A. W. Keen. Philosophical Library, New York, \$7.50

CUBTITLED The Science of Electrons in Action, this volume is a beautifully printed and illustrated member of Philosophical Library's English-manufactured series. The author is an expert of twenty years' standing as engineer, writer and teacher, and he has attempted to explain, in accurate but elementary terms, electronic devices and their applications. If a former wartime Air Corps communications officer like me, with a hasty tread-job electronics education, can follow the author with ease and interest, I'd say anybody can - and should.

THE KEY TO INTERPLANE-TARY SPACE TRAVEL by Bradford Chambers. Stravon Publishers, New York, \$1.50

shima, the government announcement last summer of plans to launch a space satellite program has resulted in a sudden upsurge in public interest in science—specifically space travel, form erly the exclusive domain of pages like ours. This luridly dust-jacketed little volume has been

calculated to catch the eye of the neophyte. Once hooked, said beginner will find that he has in his hand an easily understandable basic text.

INTERPLANETARY HUNTER by Arthur K. Barnes. Gnome Press, Inc., New York, \$3.00

UNDOUBTEDLY, if you are an A.K. like Barnes or me, this will take you back to the good(?) old days of the middle years of S-F, when the impact of Stanley Weinbaum's Queeeell was still busily repercussing—the days of monsters and gimmicks. Of suchlike, the above volume has its fill and more. Add to that the lurid sketches by Ed Emsh and W. I. van der Poel and you have a fearful object indeed.

In the heyday of Gerry Carlyle, the fabulously gorgeous interplanetary hunter modeled with alterations after the glamor figure of the '30s, Frank Buck, this was sizzling stuff. But, having seen other sizzling stuff turn stone-cold dead in the book market, I naturally approached this volume, some fifteen years later, with considerable trepidation. Astonishingly, these stories are still surprisingly readable.

If you like a huge collection of assorted BEMs and well-thoughtout gimmicks in tight situations, you will assuredly go for this. PLAGUE SHIP by Andrew North. Gnome Press, New York, \$2.75

HERE is a "further adventure" of Dane Thorson and the Free Trader, the Solar Queen. If you recall Sargasso of Space, Thorson was assigned to a free-trade ship on graduation from training academy, instead of to a cushy job with one of the big companies. He doesn't regret it, fortunately for teen-age readers, because he has himself a fistful of adventures such as he'd never have had as a cloistered company man.

This time, the cargo-master of the Queen and his apprentice, Thorson, have a problem in establishing trade relations with a feline race on Sargol, a planet to which they have won trading rights. Thorson solves the problem, but in a manner that brings discredit on himself in spite of its success.

On the home trip, an unknown illness knocks out all the crew except the apprentice youngsters who participated in a native ceremony and somehow acquired immunity. As a plague ship, the Queen is subject to outright destruction or condemned to wander. Thorson solves that problem also, in an interesting fashion, but again with repercussions.

- FLOYD C. GALE

George All The Way

By RICHARD WILSON

It was very embarrassing . . .

Marcer discovered that time
travel was pure 23 skiddoo!

VEN before the shimmering stopped, Bill Marcer saw that he was being surrounded. He felt a trifle uneasy, though the phlutters had assured him there would be no danger.

Abruptly the shimmering was gone and Marcer seemed to feel the last of his personal molecules

slip back into place as the Phleger effect faded. He wriggled his shoulders, threw them back, filled his chest and forced a smile.

"Greetings," he said to the crowd, pivoting to address as many as possible from the railed platform. "I, Billings Marcer, bring you greetings from the twentieth century." No one had

Illustrated by CAL

told him to make a speech, but he thought it would be appropriate.

One of the men of the future stepped forward, smiling formally. He was dressed in pantaloons and a skirt, or kilt, and halter top, something like a Macedonian dancer, or maybe a Scot.

"Hi," this individual said, speaking slowly and distinctly, as if to a foreigner. "Welcome to twentyone seventy-seven. I'm Jeems Kenth to be your guide. Or would you prefer to make your double o solo?"

"Double o solo?" Bill Marcer repeated. "You mean go around by myself?"

"Oskie-wow-wow," another pantalooned man said. "You win the sixty-four thousands." He pronounced each syllable with care.

"What?"

"You did say twentieth century?" the first futureman, Jeems Kenth, asked. He looked anxious. "Yes."

"Then everything's jake," he said with a visible return of his assurance. "We've straightened up and are flying right. Ish-kabibble?"

"On the beam," his fellow futureman agreed. "Voot!"

"The latter part of the twentieth century," Marcer said.

IT dawned on him that these people, in preparation for his visit, had been studying the folk

expressions of his time, or what they thought was his time.

"The latter part?" Jeems Kenth looked disappointed. "Then we have not mastered your language? We are off the beam and icing up?"

"Not at all," Marcer said quickly. As unofficial ambassador from 1977, he had to be diplomatic. "You're right in the groove. Reet. Cooking on the front burner, with gas." He wasn't fluent in the embarrassing slang of his father's and grandfather's time, but he thought he could get by. "Shut my mouth," he added as he thought of another one.

"Fan my brow!" Kenth said delightedly. "The kid's okay!"

"Terrif!" added his friend, who identified himself as Aces Jack. "Slip us some skin."

"Natch," said Marcer. He got down from the platform and shook hands all around, murmuring "Real George" or "Howza boy?" as he was introduced to Sperris Theo, Stanols Thom, Lucez Hank, Wobanx Joce and Jenfooz Ed.

"What say we tie on the feedbag while we chew the rag?" suggested Jenfooz Ed, who was heavy and hearty. "Something for the inner man?"

"Fine," said Bill Marcer. "That'd be the most, I mean."

He saw that he had materialized in a public square and that the crowd around him was holding up traffic. Wildly colored three-wheeled vehicles waited calmly for the obstruction to clear, without a honk out of them. But now a uniformed man made his way through the crowd, saying: "Unclutter. Decong."

Aces Jack went to meet him, saying: "Twonce. Wantroduce chronaut from twencent. Marcers Bill. Bill, Phoebes Dick."

"Do," Phoebes Dick said in the clipped speech that apparently was the proper language of 2177. He gave Marcer a brief look and turned away to Aces Jack. "Going? Must unsnarl."

He went back to the patient traffic jam as Jenfooz Ed and Jeems Kenth led the group toward a building shaped, Marcer thought, something like a hamburger. He felt a bit hurt by Phoebes Dick's abruptness. The man could have looked up at least one slang expression, for politeness' sake.

Jeems Kenth seemed to sense Marcer's disappointment. "P.D.'s a cop," he said. "You savvy how cops are on duty. Dum-da-da-da-dum."

"Check," Marcer said. He had no idea what the musical phrase was meant to convey.

A BIG table had been reserved for them at the hamburger joint, as Marcer felt obliged to

call it. Bowls on the table were piled high with familiar raw fruit and unfamiliar prepared foods.

"Yes, we have no bananas," said Lucez Hank brightly, although they had. "Pile in. Your stomach must think your throat's been cut."

"That's right," Marcer nodded agreeably. "Haven't eaten for a couple of hundred years, come to think of it."

Everybody laughed uproariously and for a while there was no conversation, only the sound of eating, which was done with the fingers.

As Bill Marcer chewed, he studied his hosts, thinking of their names. They had called him Marcers Bill, inverting it. Back when surnames began to be used, people took them from occupations: Miller, Goldsmith, Wheeler, Hunter. Then the sons: Robertson, son of Robert—Robert's son. That seemed to be the style again, here in 2177. Jeems Kenth, then, had been Jeem's Kenneth or—of course!—GM's Kenneth.

He turned to Kenth, waving a dripless algyburger excitedly. "You're with General Motors, aren't you?"

Kenth beamed. "Solid, Jack-son."

Marcer turned to the man on his left. "And Jenfooz Ed. General Foods?"

"Sensash!" Ed agreed.

"And Stanols Thom would be with Standard Oil, and Sperris Theo with Sperry's, and Lucez Hank with Luce's — publishing. Right?"

"The kid's a wonder," Wobanx Joce said from across the table. "Now dig me and Aces Jack."

"World Bank?" he guessed. They nodded in delight. "But Aces Jack? You've got me there, unless you're in the playing-card business."

Jack grinned. "Higher stakes.
Try AEC."

"Atomic Energy Commission?" "Corporation. Defederalized."

"Of course," Marcer said. "Then that cop – Phoebes Dick. Could Phoebe be FBI?"

"Bull's eye!" said Lucez Hank.

"Now you level with us, Marcers
Bill. What's your line?"

"None, really. I'm what the papers call the heir to a silicone fortune. Just a playboy with a lot of money, which is why I'm here. I guess if I had any descendants, one of them might be Slix Bill. Tell me," he said, forgetting to slang it up in his excitement, "is there anybody like that around? Could I see him?"

There was a silence that Marcer took for embarrassment. Stanols Thom broke it with a laugh. "That'd be illegal, Fosdick, old boy. It'd be like wising you up to when you were going to kick the

bucket. Couldn't tip your mitt, you know."

"It wouldn't matter," Marcer said. "I won't remember any of this, anyhow. Didn't they tell you, when they arranged my trip, that I'll have an amnesia shot when I get back? Time travel's still top secret in 1977."

"Fill us in," Jeems Kenth said.
"We have the general picture, of course, but you're a history book on legs. Give us the straight lowdown."

BILL MARCER flicked crumbs from his algyburger into the disposal slot in the middle of the table. "Well," he said, "time travel was a Government project till it ran into budget trouble. Budgets haven't become obsolete, have they?"

They shook their heads, smiling ruefully.

For years, he told them, Congress had appropriated money and the top-secret Ingersoll Project had gobbled it up, without notable success.

On its best try, IP sent an expendable research worker five minutes into the future. He didn't come back. But when the five minutes had elapsed, there he was. The intervening time simply hadn't existed for him.

This sort of research didn't seem productive, economically or militarily. The costs worked out

to about a hundred million dollars a minute, so the House Appropriations Committee balked at voting new billions for the next year's program. One committee member wanted to know if there wasn't a private agency that could carry on. The Rockefellers, maybe, or the Fords. The committee counsel was instructed to look into it.

His looking produced the Phleger Foundation, consisting of the tax-free millions of a West Coast airplane manufacturer. Phleger set up his Foundation's time division in a vast piece of property outside Los Angeles, which he'd taken over in one of his less inspired mergers. The property had been vacant for years and the chronicians swarmed in.

To the Phleger people, the fact that someone had gone five minutes into the future proved time travel practical. The principle had to be the same for five years, a jump they eventually achieved. But these were one-way trips and valuable chronicians were lost to research for whatever span of time they jumped.

Then, one historic day, a round trip was achieved. From that time on, the Foundation began to earn money faster than it could be spent. It accomplished this by making time travel a plaything of the idle rich.

Old Philip Phleger personally

took charge of hawking tours to Phleger's future among adventurous young millionaires whose current fad, motor-sledding in the Antarctic, had begun to pall.

"Have you tried phluttering?"
Old Man Phleger would say. "It's
the latest thing. Certain tax advantages, too, you know."

Bill Marcer, after Phleger's legal section codified, his medical people examined, his psychologists analyzed, and the Old Man himself had a whirl at it, was among the first non-professionals to phlutter.

Marcer signed the check, the waiver and the medical form and climbed onto the open-railed platform in the great shed. The shimmering came, obscuring the figures of the chronicians watching him intently from their banks of machines. Things went gray, he sneezed a couple of times and, gripping the railing tightly, he phluttered into 2177.

AND here I am," he told Jeems and Aces and Stanols and the rest. "Just a playboy on a fling. It's certainly been good of you to give up your valuable time to entertain me."

"Not at all," Aces Jack said pleasantly. "Don't low-rate your-self. It takes two to tango."

"If you mean my money and Phleger's brains, you're right. Well, then, if you don't mind, I'd like to see more of 2177. I've only got two hours."

Jeems Kenth looked at his wristwatch.

"Why, that's the same as mine,"
Marcer said. He pushed up his
sleeve to compare them. "A Hamilton."

"An heirloom," Kenth explained. "Been in the family for generations. My time is your time, eh, Rudy?"

Marcer laughed. "I've heard of Rudy Vallee, of course, but he was really before my time. You know, if you don't mind my saying so, all these slang expressions—well, they're a bit of a strain. We speak—spoke—pretty straight English back in 1977."

trying to make you feel at home. I, for one, put in many an hour at the histoviewer to learn your quaint expressions."

"Oh, I'm sorry. I've offended you."

"Forget it," Jenfooz Ed broke in. "Sweep it under the rug. Look, fellas, our man from the past has to go back soon and we're wasting his valuable time. And I do mean valuable, eh, Bill? I'll bet Old Man Phleger took a stack of the green before he let you climb aboard."

"I have some left," Marcer grinned.

"Well, you won't spend it here.

Everything's on the house. Now what would you like to do? How about —"

"I'd like to see what you're doing with silicones," Marcer interrupted. "It's the family business, you know. I'll probably be going into it when or if I settle down."

"Great idea," Aces Jack said, "but I'm afraid the slix works is pretty far out. You'd never get back in time to go back in time, if you follow me. We've got to get you on that platform when the gong sounds or I hate to think what'd happen to your molecules."

"Oh?" Marcer said in alarm. "I didn't know -"

"Never fear," Jenfooz Ed boomed. "We'll see that you're dephluttered in one piece. What I was going to say was, why don't we give our guest a gander at the girly line?"

"Girly line?" Marcer brightened. "You mean women? Come to think of it, I haven't seen any of your women. They're not extinct, are they?"

"Perish forbid!" Stanols Thom exclaimed. "Let's show the young buck."

"Bring on the girls!" cried Jenfooz Ed. "Va-va-voom!" He ran to a door on which the word Women was lettered.

"Open the door, Richard!" Aces Jack shouted to him. "Let there be titillation for our guest in his last remaining minutes!"



THE door opened and Bill Marcer was indeed titillated by the bevy of near-buxom young women who emerged in a little dancing run. Lilting music from hidden speakers accompanied their entry. Each wore a differently daring costume and each danced up to him and introduced herself with a kiss and a verse.

"I'm Daysend Mae, for your hours of play," said a red-headed charmer.

A raven-haired beauty told him: "They call me Jet; I help you forget."

"Abandon your worry and play with Terri," recited a striking blonde.

Marcer's head was swimming from the subtly changing whiffs of perfume. He was laughing in delight and had difficulty puckering his lips to do justice to the variegated kisses he was receiving.

He grabbed at the fourth girl and for a delicious moment held her in his arms. This one whispered: "I'm off at six, honey. Meet me at Exit C." She gave him a little bump with her tummy and winked as she danced away.

Before he could digest her message — she was a most appealing strawberry blonde — an auburnhaired dream was upon him, cooing: "Flee with Bea beyond the sea." She flickered her long eyelashes against his cheek as she bestowed her kiss. A great gong sounded just as he was puckering up for a statuesque creature whose hair he failed to notice because of her other assets. But at a gesture from Jeems Kenth, she reversed her dance and flitted away. "Sorry, big boy," she said. "Time's up."

And off they went, the gorgeous lot of them, doing a little time step back through the door marked Women.

Marcer, dizzy and lipsticked, reluctantly permitted himself to be led out of the building to the platform that was to take him back to 1977.

"That was fun," Marcer said, "but what was it? Is that the way you choose your — uh — companions in 2177?"

"One of the ways," Sperris Theo said. "Those were the playgirls. For a more permanent alliance, there's the mate date. We knew you wouldn't have time for that."

"Hated to drag you away," Aces Jack put in, "but we can't have your molecules congealing."

"Been great having you," Lucez Hank told him. "Now on your horse and awa-a-y!"

Marcer climbed up on the platform. His hosts gathered around it to shake hands. Even Phoebes Dick, holding back traffic for his departure, gave him a clipped salute.

"I can't tell you how much I enjoyed knowing you all," Marcer said. He searched for words. "It was the - the cat's pajamas."

They were laughing and waving while the shimmering began.

WHEN the shimmering stopped, he was back in the shed. Back in the dull past of his own time, he thought, with the sweet kisses of the future still tingling his lips. In a moment, he supposed, he'd get his amnesia shot. Meanwhile, he savored his memory.

The chronicians were shouting and milling around.

"Get that curtain up!" someone seemed to be yelling.

"Throw something over those mockups," somebody else cried, "and, for God's sake, get out of here with those costumes. Something's gone wrong with the shim!"

Marcer clutched the platform rail and stared. He couldn't see too well because they had a spotlight on him and the rest of the shed was dim. But wasn't that Wobanx Joce disappearing through a door? And Jeems Kenth crowding behind him, throwing a look of consternation over his shoulder? Kenth, the one who'd worn that "heirloom" wristwatch.

And at the other side of the big room, peeping out from behind a slab of painted scenery—wasn't that a giggling gang of girls, among whom could be discerned Jet and Terri and Daysend Mae?

Chorus girls. Undoubtedly, for there among them was the strawberry blonde, looking boldly at him and holding up six fingers. "I'm off at six, honey," she had told him in "2177."

He'd been taken for a joyride into a phony future. Swindled. Bilked.

Angrily he looked around for Old Man Phleger. He didn't see him. But there was the top "chronician," Wagner, the chief of staff of these confidence men who had tried to rook him so expensively. Wagner, a harassed, perspiring man in a smock, was scurrying desperately from one bank of controls to another, throwing occasional hopeless glances at Marcer.

"Wagner!" Marcer said. "You crook! Wait till I get my hands on you!" He climbed over the rail.

Wagner threw out his hands appealingly. "Don't get excited, Mr. Marcer. I know what you think, but it's not that way at all. I mean not entirely. I can explain."

"You'll explain to the police," Marcer said. "I've had all the explanation I need. Phleger's future! Nothing but movie sets!"

"Please, Mr. Marcer -"

"-federal offense," Marcer said, unheeding. "I'm sure the FBI will be interested, too. You even had the gall to hang their name on one of your actors. 'Phoebes Dick'!"

"Now, Mr. Marcer-"

"Va-va-voom!" Marcer shouted at him. "Oh, phlut-phlut! Yes, we have no bananas! Very clever! The music goes round and round and it comes out fraud. Twenty-three skiddoo to you, kiddo. I'll be seeing you in court."

"Mr. Marcer, listen to me," Wagner pleaded. "I admit we staged the whole thing. I admit it and I'll tear up your check if you want me to. But first listen. Time travel is possible. You would have gone into the legitimate future if our machine hadn't broken down at the last minute."

Wagner's earnestness was obvious.

"The machine broke down?"

Wagner wiped his forehead with the sleeve of his smock. "We didn't want to disappoint you. Frankly, we were afraid that if we weren't ready on time, you'd change your mind about your donation, and we needed the money. So we faked it, intending to explain later and give you a rain check."

"Yes. When the machine is repaired, we're prepared to send you into the legitimate future—free of charge—if you're still interested."

"Free?" Marcer calmed down. strawberry blonde "Well, now." He considered. "I have a mate date. guess there's nothing to lose. I — RICHA

could stop payment on the check even if you didn't tear it up."

"We'll tear it up. After this fiasco, we need your good will even more than your money."

THE PHLEGER people fixed their machine within a week.

Bill Marcer thought it over, went back, laughed with Wagner and let his check go through. He signed a new waiver and climbed up on the railed platform.

His decision might have been influenced by the strawberry blonde, whose role in the phony follies of 2177 was the only one that really meant anything. She'd waited for him, as she had promised, at Exit C, at six.

Now the shimmering began and the figures of Wagner and the other chronicians faded.

Marcer didn't like anything about the real future. It was chill and drizzly and he couldn't see very far. Men in gray uniforms ringed the platform. They wouldn't talk to him and refused to let him climb over the rail. His visit lasted only ten minutes, but it seemed an hour and he kept sneezing all the time.

He preferred the fake.

When he got back from this damp nothing of a future, he promised himself, he and the strawberry blonde were going to have a mate date.

- RICHARD WILSON

JACKPOT

By CLIFFORD D. SIMAK

FOUND Doc in the dispensary. He had on quite a load. I worked him over some to bring him half awake.

"Get sobered up," I ordered curtly. "We made planetfall. We've got work to do."

I took the bottle and corked it and set it high up on the shelf, where it wasn't right at hand.

Doc managed to achieve some dignity. "You needn't worry, Captain. As medic of this tub—"

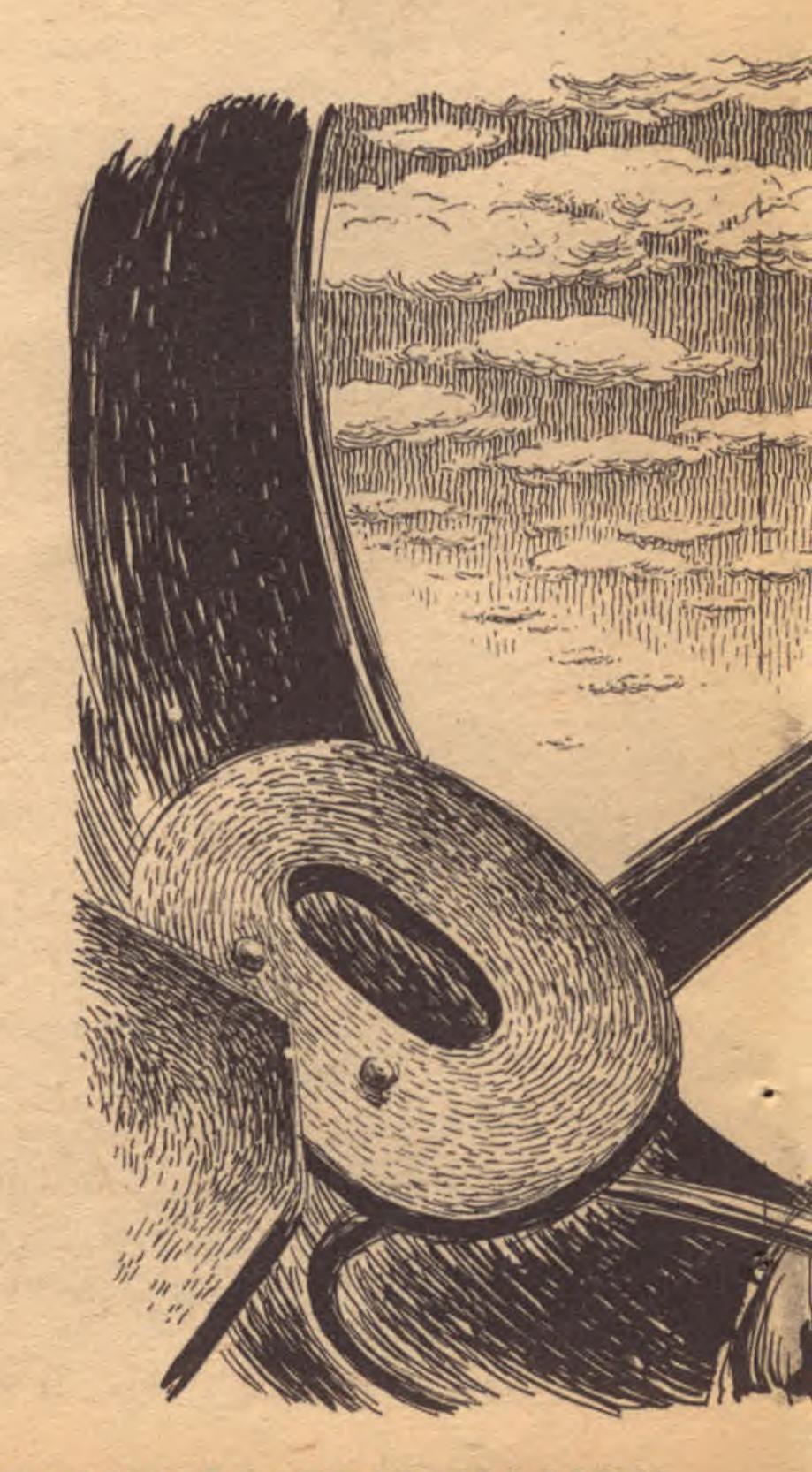
"I want all hands up and moving. We may have something out there."

"I know," Doc said mournfully.

"When you talk like that, it's bound to be a tough one. An off-beat climate and atmosphere pure poison."

"It's Earth-type, oxygen, and the climate's fine so far. Nothing to be afraid of. The analyzers gave it almost perfect rating."

Doc groaned and held his head





between his hands. "Those analyzers of ours do very well if they tell us whether it is hot or cold or if the air is fit to breathe. We're a haywire outfit, Captain."

"We do all right," I said.

"We're scavengers and sometimes birds of prey. We scour the Galaxy for anything that's loose."

I paid no attention to him. That was the way he always talked when he had a skin full.

"You get up to the galley," I told him, "and let Pancake pour some coffee into you. I want you on your feet and able to do your fumbling best."

But Doc wasn't ready to go just yet. "What is it this time?"

"A silo. The biggest thing you ever saw. It's ten or fifteen miles across and goes up clear out of sight."

"A silo is a building to store winter forage. Is this a farming planet?"

"No," I said, "it's desert. And it isn't a silo. It just looks like one."

"Warehouse?" asked Doc. "City? Fortress? Temple – but that doesn't make any difference to us, does it, Captain? We loot temples, too."

"Get up!" I yelled at him. "Get going."

HE MADE it to his feet. "I imagine the populace has come out to greet us. Appropriately, I hope."

"There's no populace," I said.
"The silo's just standing there alone."

"Well, well," said Doc. "A second-story job."

He started staggering up the catwalk and I knew he'd be all right. Pancake knew exactly how to get him sobered up.

I went back to the port and found that Frost had everything all set. He had the guns ready and the axes and the sledges, the coils of rope and the canteens of water and all the stuff we'd need. As second in command, Frost was invaluable. He knew what to do and did it. I don't know what I'd have done without him.

I stood in the port and looked out at the silo. We were a mile or so away from it, but it was so big that it seemed to be much closer. This near to it, it seemed to be a wall. It was just God-awful big.

"A place like that," said Frost, "could hold a lot of loot."

"If it isn't empty," I answered.
"If there isn't someone or something there to stop us taking it. If
we can get into it."

"There are openings along the base. They look like entrances."

"With doors ten feet thick."

I wasn't being pessimistic. I was being logical—I'd seen so many things that looked like billions turn into complicated headaches that I never allowed myself much hope until I had my hands

on something I knew would bring us cash.

Hutch Murdock, the engineer, came climbing up the catwalk. As usual, he had troubles. He didn't even stop to catch his breath.

"I tell you," he said to me, "one of these days those engines will just simply fall apart and leave us hanging out in space light-years from nowhere. We work all the blessed time to keep them turning over."

I clapped him on the shoulder. "Maybe this is it. Maybe after this we can buy a brand-new ship."

But it didn't cheer him up. He knew as well as I did that I was talking to keep up my spirit as well as his.

"Someday," he said, "we'll have bad trouble on our hands. Those boys of mine will drive a soap bubble across three hundred light-years if it's got an engine in it. But it's got to have an engine. And this wreck we got . . ."

He would have kept right on, but Pancake blew the horn for breakfast.

DOC WAS already at the table and he seemed to be functioning. He had a moderate case of shudders and he seemed a little pale. He was a little bitter, too, and somewhat poetic.

"So we gather glory," he told us. "We go out and lap it up. We haunt the ruins and we track the dream and we come up dripping cash."

"Doc," I said, "shut up."

He shut up. There was no one on the ship I had to speak to twice.

We didn't dally with the food. We crammed it down and left. Pancake left the dishes standing on the table and came along with us.

We got into the silo without any trouble. There were entrances all around the base and there weren't any doors. There was not a thing or anyone to stop us walking in.

It was quiet and solemn inside

— and unspectacular. It reminded

me of a monstrous office building.

It was all cut up with corridors, with openings off the corridors leading into rooms. The rooms were lined with what looked like filing cases.

We walked for quite a while, leaving paint markers along the walls to lead us back to the entrance. Get lost inside a place like that and one could wander maybe half a lifetime finding his way out.

We were looking for something — almost anything — but we didn't find a thing except those filing cases.

So we went into one of the rooms to have a look inside the files.

Pancake was disgusted. "There won't be nothing but records in those files. Probably in a lingo we can't even read."

"There could be anything inside those files," said Frost. "They don't have to be records."

Pancake had a sledge and he lifted it to smash one of the files, but I stopped him. There wasn't any use doing it messy if there was a better way.

We fooled around a while and we found the place where you had to wave your hand to make a drawer roll out.

The drawer was packed with what looked like sticks of dynamite. They were about two inches in diameter and a foot, or maybe a little more, in length, and they were heavy.

"Gold," said Hutch.

"I never saw black gold," Pancake said.

"It isn't gold," I told them.

I was just as glad it wasn't. If it had been, we'd have broken our backs hauling it away. Gold's all right, but you can't get rich on it. It doesn't much more than pay wages.

We dumped out a pile of the sticks and squatted on the floor, looking them over.

"Maybe it's valuable," said Frost, "but I wouldn't know. What do you think it is?"

None of us had the least idea. We found some sort of symbols on each end of the sticks and the symbols on each stick seemed to be different, but it didn't help us any because the symbols made no sense.

We kicked the sticks out of the way and opened some more drawers. Every single drawer was filled with the sticks.

We went into some other rooms and we waved our hands some more and the drawers came popping out and we didn't find anything except more sticks.

WHEN we came out of the silo, the day had turned into a scorcher. Pancake climbed the ladder to stack us up some grub and the rest of us sat down in the shade of the ship and laid several of the sticks out in front of us and sat there looking at them, wondering what we had.

"That's where we're at a big disadvantage," said Hutch. "If a regular survey crew stumbled onto this, they'd have all sorts of experts to figure out the stuff. They'd test it a dozen different ways and they'd skin it alive almost and they'd have all sorts of ideas and they'd come up with some educated guesses. And pretty soon, one way or another, they'd know just what it was and if it was any use."

"Someday," I told them, "if we ever strike it rich, we'll have to hire us some experts. The kind

of loot we're always turning up, we could make good use of them."

"You won't find any," said Doc, "that would team up with a bunch like us."

"Where do you get 'bunch-likeus' stuff?" I asked him, a little sore. "Sure, we ain't got much education and the ship is just sort of glued together and we don't use any fancy words to cover up the fact that we're in this for all we can get out of it. But we're doing an honest job."

"I wouldn't call it exactly honest. Sometimes we're inside the law and sometimes outside it."

That was nonsense and Docknew it. Mostly where we went, there wasn't any law.

"Back on Earth, in the early days," I snapped back, "it was folks like us who went into new lands and blazed the trails and found the rivers and climbed the mountains and brought back word to those who stayed at home. And they went because they were looking for beaver or for gold or slaves or for anything else that wasn't nailed down tight. They didn't worry much about the law or the ethics of it and no one blamed them for it. They found it and they took it and that was the end of it. If they killed a native or two or burned a village or some other minor thing like that, why, it was just too bad."

Hutch said to Doc: "There

ain't no sense in you going holy on us. Anything we done, you're in as deep as we are."

"Gentlemen," said Doc, in that hammy way of his, "I wasn't trying to stir up any ruckus. I was just pointing out that you needn't set your heart on getting any experts."

"We could get them," I said, "if we offered them enough. They got to live, just like anybody else."

"They have professional pride, too. That's something you've forgotten."

"We got you."

"Well, now," said Hutch, "I'm not too sure Doc is professional. That time he pulled the tooth for me --"

"Cut it out," I said. "The both of you."

This wasn't any time to bring up the matter of the tooth. Just a couple of months ago, I'd got it quieted down and I didn't want it breaking out again.

FROST picked up one of the sticks and turned it over and over, looking at it.

"Maybe we could rig up some tests," he suggested.

"And take the chance of getting blown up?" asked Hutch.

"It might not go off. You have a better than fifty-fifty chance that it's not explosive."

"Not me," said Doc. "I'd rather just sit here and guess. It's less

tiring and a good deal safer."

"You don't get anywhere by guessing," protested Frost. "We might have a fortune right inside our mitts if we could only find out what these sticks are for. There must be tons of them stored in the building. And there's nothing in the world to stop us from taking them."

"The first thing," I said, "is to find out if it's explosive. I don't think it is. It looks like dynamite, but it could be almost anything. For instance, it might be food."

"We'll have Pancake cook us up a mess," said Doc.

I paid no attention to him. He was just needling me.

"Or it might be fuel," I said. "Pop a stick into a ship engine that was built to use it and it would keep it going for a year or two."

Pancake blew the chow horn and we all went in.

A FTER we had eaten, we got

We found a flat rock that looked like granite and above it we set up a tripod made out of poles that we had to walk a mile to cut and then had to carry back. We rigged up a pulley on the tripod and found another rock and tied it to the rope that went up to the pulley. Then we paid out the rope as far as it would go and cook one of them, but Pancake there we dug a foxhole.

By this time, the sun was setting and we were tuckered out, but we decided to go ahead and make the test and set our minds at rest.

So I took one of the sticks that looked like dynamite and while the others back in the foxhole hauled up the rock tied to the rope, I put the stick on the first rock underneath the second and then I ran like hell. I tumbled into the foxhole and the others let go of the rope and the rock dropped down on the stick.

Nothing happened.

Just to make sure, we pulled up and dropped the rock two or three times more and there was no explosion.

We climbed out of the foxhole and went over to the tripod and rolled the rock off the stick, which wasn't even dented.

By this time, we were fairly well convinced that the stick couldn't be set off by concussion, although the test didn't rule out a dozen other ways it might blow us all up.

That night, we gave the sticks the works. We poured acid on them and the acid just ran off. We tried a cold chisel on them and we ruined two good chisels. We tried a saw and they stripped the teeth clean off.

We wanted Pancake to try to refused.

"You aren't bringing that stuff into my galley," he said. "If you do, you can cook for yourselves from now on. I keep a good clean galley and I try to keep you guys well fed and I ain't having you mess up the place . . ."

"All right, Pancake," I said. "Even with you cooking it, it probably wouldn't be fit to eat."

WE WOUND up sitting at a table, looking at the sticks piled in the center of it. Doc brought out a bottle and we all had a drink or two. Doc must have been considerably upset to share his liquor with us.

"It stands to reason," said Frost, "that the sticks are good for something. If the cost of that building is any indication of their value, they're worth a fortune."

"Maybe the sticks aren't the only things in there," Hutch pointed out. "We just covered part of the first floor. There might be a lot of other stuff in there. And there are all those other floors. How many would you say there were?"

"Lord knows," said Frost.
"When you're on the ground, you can't be sure you see to the top of it. It just sort of fades away when you look up at it."

"You notice what it was built of?" asked Doc.

"Stone," said Hutch.

"I thought so, too," said Doc.

"But it isn't. You remember these big apartment mounds we ran into in that insect culture out on Suud?"

We all remembered them, of course. We'd spent days trying to break into them because we had found a handful of beautifully carved jade scattered around the entrance of one of them and we figured there might be a lot of it inside. Stuff like that brings money. Folks back in civilization are nuts about any kind of alien art and that jade sure enough was alien.

We'd tried every trick that we could think of and we got nowhere. Breaking into those mounds was like punching a feather pillow. You could dent the surface plenty, but you couldn't break it because the strength of the material built up as pressure compressed the atoms. The harder you hit, the tougher it became. It was the kind of building material that would last forever and never need repair and those insects must have known they were safe from us, for they went about their business and never noticed us. That's what made it so infuriating.

And material like that, I realized, would be just the ticket for a structure like the silo. You could build as big or as high as you had a mind to; the more pressure you put on the lower

structure, the stronger it would be.

"It means," I said, "that the building out there could be much older than it seems to be. It could be a million years or older."

"If it's that old," said Hutch,
"it could really be packed. You
can store away a lot of loot in a
million years."

Doc and Frost drifted off to bed and Hutch and I sat there alone, looking at the sticks.

I GOT to thinking about some of the things that Doc was always saying, about how we were just a bunch of cutthroats, and I wondered if he might be right. But think on it as hard and as honest as I could, I couldn't buy it.

On every expanding frontier, in all of history, there had been three kinds of men who went ahead and marked out the trails for other men to follow—the traders and the missionaries and the hunters.

We were the hunters in this case, hunting not for gold or slaves or furs, but for whatever we could find. Sometimes we came back with empty hands and sometimes we made a haul. Usually, in the long run, we evened out so we made nothing more than wages. But we kept on going out, hoping for that lucky break that would make us billionaires.

It hadn't happened yet, and perhaps it never would. But someday it might. We touched the ghostly edge of hope just often enough to keep us thinking that it would. Although, I admitted to myself, perhaps we'd have kept going out even if there'd been no hope at all. Seeking for the unknown gets into your blood.

When you came right down to it, we probably didn't do a bit more harm than the traders or the missionaries. What we took, we took; we didn't settle down and change or destroy the civilizations of people we pretended we were helping.

I said as much to Hutch. He agreed with me.

"The missionaries are the worst," he said. "I wouldn't be a missionary no matter what they paid me."

We weren't doing any good just sitting there, so I got up to start for bed.

"Maybe tomorrow we'll find something else," I said.

Hutch yawned. "I sure hope we do. We been wasting our time on these sticks of dynamite."

He picked them up and on our way up to bed, he heaved them out the port.

The next day, we did find something else.

We went much deeper into the silo than we had been before, following the corridors for what must have been two miles or more.

We came to a big room that probably covered ten or fifteen acres and it was filled from wall to wall with rows of machines, all of them alike.

They weren't much to look at. They resembled to some extent a rather ornate washing machine, with a bucket seat attached and a dome on top. They weren't bolted down and you could push them around and when we tipped one of them up to look for hidden wheels, we found instead a pair of runners fixed on a swivel so they'd track in any direction that one pushed. The runners were made of metal that was greasy to the touch, but when you rubbed your fingers on them, no grease came off them.

There was no power connection.

"Maybe it's a self-powered unit," said Frost. "Come to think of it, I haven't noticed any power outlets in the entire building."

WE HUNTED for some place where we could turn on the power and there wasn't any place. That whole machine was the smoothest, slickest hunk of metal you ever saw. We looked for a way to get into its innards, so we could have a look at them, but there wasn't any way. The jacket that covered the works seemed to

be one solid piece without an apparent seam or a sign of a bolt or rivet.

The dome looked as though it ought to come off and we tried to get it off, but it remained stubbornly in place.

The bucket seat, however, was something else again. It was lousy with all sorts of attachments to accommodate the sitting surface of almost any conceivable kind of being. We had a lot of fun adjusting it in different ways and trying to figure out what kind of animal could have a seat like that. We got a bit obscene about it, I remember, and Hutch was doubled up laughing.

But we weren't getting anywhere and we were fairly sure we wouldn't until we could get a cutting tool and open up one of the machines to find out what made it tick.

We picked out one of them and we skidded it down the corridors. When we got to the entrance, we figured we would have to carry it, but we were mistaken. It skidded along over the ground and even loose sand almost as well as it did in the corridors.

After supper, Hutch went down to the engine room and came back with a cutting tool. The metal was tough, but we finally got at least some of the jacket peeled away.

The innards of that machine

were enough to drive you crazy. It was a solid mass of tiny parts all hooked together in the damnedest jumble. There was no beginning and no end. It was like one of those puzzle mazes that go on and on forever and get no place.

Hutch got into it with both hands and tried to figure out how to start taking it apart.

After a while, he sat back on his heels and growled a little at it. "There's nothing holding them together. Not a bolt or rivet, not even so much as a cotter pin. But they hang together somehow."

"Just pure cussedness," I said.

He looked at me kind of funny. "You might be right, at that."

He went at it again and bashed a couple of knuckles and sat there sucking at them.

"If I didn't know that I was wrong," he said, "I'd say that it was friction."

"Magnetism," Doc offered.

"I tell you what, Doc," said Hutch. "You stick to what little medicine wou know and let me handle the mechanics."

Frost dove in quick to head off an argument. "That frictional idea might not be a bad one. But it would call for perfect machining and surface polish. Theoretically, if you place two perfectly polished surfaces together, the molecules will attract one another and you'll have permanent cohesion." I DON'T know where Frost got all that stuff. Mostly he seemed to be just like the rest of us, but occasionally he'd come out with something that would catch you by surprise. I never asked him anything about himself; questions like that were just plain bad manners.

We messed around some more and Hutch bashed another knuckle and I sat there thinking how we'd found two items in the silo and both of them had stopped us in our tracks. But that's the way it is. Some days you can't make a dime.

Frost moved around and pushed Hutch out of the way. "Let me see what I can do."

Hutch didn't protest any. He was licked.

Frost started pushing and pulling and twisting and fiddling away at that mess of parts and all at once there was a kind of whooshing sound, like someone had let out their breath sort of slow and easy, and all the parts fell in upon themselves. They came unstuck, in a kind of slow-motion manner, and they made a metallic thump along with tinkling sounds and they were just a heap inside the jacket that had protected them.

"Now see what you done!" howled Hutch.

"I didn't do a thing," said Frost.
"I was just seeing if I could bust

one loose and one did and then the whole shebang caved in."

He held up his fingers to show us the piece that had come loose.

"You know what I think?" asked Pancake. "I think whoever made that machine made it so it would fall apart if anyone tried to tinker with it. They didn't want no one to find out how it was put together."

"No use getting peeved at it. After all, it was their machine."

"Doc," I said, "you got a funny attitude. I never noticed you turning down your share of anything we find."

"I don't mind when we confine ourselves to what you might call, in all politeness, natural resources. I can even stomach the pillaging of art-forms. But when it comes to stealing brains — and this machine is brains —"

Frost let out a whoop.

He was hunkered down, with his head inside the jacket of the machine, and I thought at first he'd got caught and that we'd have to cut him out, but he could get out, all right.

"I see now how to get that dome off the top," he said.

It was a complicated business, almost like a combination on a safe. The dome was locked in place by a lot of grooves and you had to know just how to turn it to lift it out of place.

Frost kept his head inside the jacket and called out directions to Hutch, who twisted the dome first this way and then that, sometimes having to pull up on it and other times press down to engage the slotted mechanism that held it locked in place. Pancake wrote down the combinations as Frost called them off and finally the dome came loose in Hutch's hands.

O NCE it was off, there was no mystery to it. It was a helmet, all rigged out with adjustable features so it could be made to fit any type of head, just as the seat was adjustable to fit any sitting apparatus.

The helmet was attached to the machine with a retractable cable that reeled out far enough to reach someone sitting in the seat.

And that was fine, of course. But what was it? A portable electric chair? A permanent wave machine? Or what?

So Frost and Hutch poked around some more and in the top of the machine, just under where the dome had nested, they found a swivel trap door and underneath it a hollow tube extending down into the mass of innards—only the innards weren't a mass any more, but just a basket of loose parts.

It didn't take any imagination to figure what that hollow tube

was for. It was just the size to take one of the sticks of dynamite.

Doc went and got a bottle and passed it around as a sort of celebration and after a drink or two, he and Hutch shook hands and said there were no hard feelings. But I didn't pay much attention to that. They'd done it many times before and then been at one another's throat before the night was over.

Just why we were celebrating was hard to figure. Sure, we knew the machine fitted heads and that the dynamite fitted the machine — but we still had no idea what it was all about.

We were, to tell the truth, just a little scared, although you couldn't have gotten one of us to admit it.

We did some guessing, naturally.

"It might be a mechanical doctor," said Hutch. "Just sit in that seat and put the helmet on your head and feed in the proper stick and you come out cured of whatever is wrong with you. It would be a blessing, I can tell you. You wouldn't ever need to worry if your doctor knew his business or not."

I thought Doc was going to jump right down Hutch's throat, but he must have remembered how they had shaken hands and he didn't do it.

"As long as you're thinking along that line," said Doc, "let's think a little bigger. Let's say it is a rejuvenation machine and the stick is crammed with vitamins and hormones and such that turn you young again. Just take the treatment every twenty years or so and you stay young forever."

"It might be an educator," Frost put in. "Those sticks might



be packed full of knowledge. Maybe a complete college subject inside of each of them."

"Or it might be just the opposite," said Pancake. "Those sticks might soak up everything you know. Each of those sticks might be the story of one man's whole life."

"Why record life stories?" asked Hutch. "There aren't many men or aliens or what-not that

have life stories important enough to rate all that trouble."

"If you're thinking of it being some sort of communications deal," I said, "it might be anything. It might be propaganda or religion or maps or it might be no more than a file of business records."

"And," said Hutch, "it might kill you deader than a mackerel."

"I don't think so," Doc replied.



"There are easier ways to kill a person than to sit him in a chair and put a helmet on him. And it doesn't have to be a communicator."

"There's one way to find out,"
I said.

"I was afraid," said Doc, "we'd get around to that."

"It's too complicated," argued Hutch. "No telling what trouble it may get us into. Why not drop it cold? We can blast off and hunt for something simple."

"No!" shouted Frost. "We can't do that!"

"I'd like to know why not," said Hutch.

"Because we'd always wonder if we passed up the jackpot. We'd figure that maybe we gave up too quick—a day or two too quick. That we got scared out. That if we'd gone ahead, we'd be rolling in money."

WE KNEW Frost was right, but we batted it around some more before we would admit he was. All of us knew what we had to do, but there were no volunteers.

Finally we drew straws and Pancake was unlucky.

"Okay," I said. "First thing in the morning . . ."

"Morning, nothing!" wailed Pancake. "I want to get it over with. I wouldn't sleep a wink."

He was scared, all right, and he

had a right to be. He felt just the way I would have if I'd drawn the shortest straw.

I didn't like barging around on an alien planet after dark, but we had to do it. It wouldn't have been fair to Pancake to have done otherwise. And, besides, we were all wrought up and we'd have no rest until we'd found out what we had.

So we got some flashes and went out to the silo. We tramped down the corridors for what seemed an endless time and came to the room where the machines were stored.

There didn't seem to be any difference in the machines, so we picked one at random. While Hutch got the helmet off, I adjusted the seat for Pancake and Doc went into an adjoining room to get a stick.

When we were all ready, Pancake sat down in the seat.

I had a sudden rush of imbecility.

"Look," I said to Pancake, "you don't need to do this."

"Someone has to," said Pancake. "We got to find out somehow and this is the quickest way."

"I'll take your place."

Pancake called me a dirty name and he had no right to do that, for I was only being helpful. But I called him another and we were back to normal.

Hutch put the helmet on Pan-

cake's head and it came down so far you couldn't see his face. Doc popped the stick into the tube and the machine purred a little, starting up, then settled into silence. Not exactly silence, either—when you laid your ear against the jacket, you could hear it running.

Nothing seemed to happen to Pancake. He sat there cool and relaxed and Doc got to work on him at once, checking him over.

"His pulse has slowed a little," Doc reported, "and his heart action's sort of feeble, but he seems to be in no danger. His breathing is a little shallow, but not enough to worry about."

It might not have meant a thing to Doc, but it made the rest of us uneasy. We stood around and watched and nothing happened. I don't know what we thought might happen. Funny as it sounds, I had thought that something would.

OC kept close watch, but Pancake got no worse.

We waited and we waited. The machine kept running and Pancake sat slumped in the seat. He was as limp as a dog asleep and when you picked up his hand, you'd think his bones had melted plumb away. All the time we got more nervous. Hutch wanted to jerk the helmet off Pancake, but I wouldn't let him. No telling

what might happen if we stopped the business in the middle.

It was about an hour after dawn that the machine stopped running. Pancake began to stir and we removed the helmet.

He yawned and rubbed his eyes and sat up straight. He looked a bit surprised when he saw us and it seemed to take a moment for him to recognize us.

"What happened?" Hutch asked him.

Pancake didn't answer. You could see him pulling himself together, as if he were remembering and getting his bearings once again.

"I went on a trip," he said.

"A travelogue!" said Doc, disgusted.

"Not a travelogue. I was there. It was a planet, way out at the rim of the Galaxy, I think. There weren't many stars at night because it was so far out — way out where the stars get thin and there aren't many of them. There was just a thin strip of light that moved overhead."

"Looking at the Galaxy edgeon," said Frost, nodding. "Like you were looking at a buzz-saw's cutting edge."

"How long was I under?" asked Pancake.

"Long enough," I told him. "Six or seven hours. We were getting nervous."

"That's funny," said Pancake.

"I'll swear I was there for a year or more."

"Now let's get this straight," Hutch said. "You say you were there. You mean you saw this place."

"I mean I was there!" yelled Pancake. "I lived with those people and I slept in their burrows and I talked with them and I worked with them. I got a blood blister on my hand from hoeing in a garden. I traveled from one place to another and I saw a lot of things and it was just as real as sitting here."

We bundled him out of there and went back to the ship. Hutch wouldn't let Pancake get the breakfast. He threw it together himself and since Hutch is a lousy cook, it was a miserable meal. Doc dug up a bottle and gave Pancake a drink, but he wouldn't let any of the rest of us have any of it. Said it was medicinal, not social.

That's the way he is at times. Downright hog-selfish.

Pancake told us about this place he had been to. It didn't seem to have much, if any, government, mostly because it didn't seem to need one, but was a humble sort of planet where rather dim-witted people lived in a primitive agricultural state. They looked, he said, like a cross between a human and a groundhog, and he drew a picture of them,

but it didn't help a lot, for Pancake is no artist.

He told us the kind of crops they raised, and there were some screwy kinds, and what kind of food they ate, and we gagged at some of it, and he even had some of the place names down pat and he remembered shreds of the language and it was outlandishsounding.

We asked him all sorts of questions and he had the answers to every one of them and some were the kind he could not have made up from his head. Even Doc, who had been skeptical to start with, was ready to admit that Pancake had visited the planet.

AFTER we ate, we hustled Pancake off to bed and Doc checked him over and he was all right.

When Pancake and Doc had left, Hutch said to me and Frost: "I can feel those dollars clinking in my pocket right this minute."

We both agreed with him.

We'd found an entertainment gadget that had anything yet known backed clear off the map.

The sticks were recordings that packed in not only sight and sound, but stimuli for all the other senses. They did the job so well that anyone subjected to their influence felt that he was part of the environment they presented. He stepped into the picture and

became a part of it. He was really there.

Frost already was planning exactly how we'd work it.

"We could sell the stuff," he said, "but that would be rather foolish. We want to keep control of it. We'll lease out the machines and we'll rent the sticks and since we'll have the sole supply, we can charge anything we wish."

"We can advertise year-long vacations that take less than half a day," said Hutch. "They'll be just the thing for executives and other busy people. Why, in a single weekend you could spend four or five years' time on several different planets."

"Maybe it's not only planets," Frost went on. "There might be concerts or art galleries and museums. Maybe lectures on history and literature and such."

We were feeling pretty good, but we were tuckered out, so we trailed off to bed.

I didn't get into bed right away, however, but hauled out the log. I don't know why I ever bothered with it. It was a hit-and-miss affair at best. There would be months I'd not even think about it and then all at once I'd get all neat and orderly and keep a faithful record for several weeks or so. There was no real reason to make an entry in it now, but I was somewhat excited and had a feeling that perhaps what had just

happened should be put down in black and white.

So I crawled under the bunk and pulled out the tin box I kept it and the other papers in, and while I was lifting it to the bunk, it slipped out of my hands. The lid flew open. The log and all the papers and the other odds and ends I kept there scattered on the floor.

I cussed a bit and got down on my hands and knees to pick up the mess. There was an awful lot of it and most of it was junk. Someday, I told myself, I'd have to throw a lot of it away. There were clearance papers from a hundred different ports and medical certificates and other papers that were long outdated. But among it I found also the title to the ship.

I sat there thinking back almost twenty years to the day I'd bought the ship for next to nothing and towed it from the junkyard and I recalled how I'd spent a couple of years spare time and all I could earn getting it patched up so it could take to space again. No wonder, I told myself, that it was a haywire ship. It had been junk to start with, and during all those years, we'd just managed to keep it glued together. There had been many times when the only thing that got it past inspection had been a fast bribe slipped quietly to the man. No one in the

Galaxy but Hutch could have kept it flying.

Pers, thinking about Hutch and all the rest of them. I got a little sentimental and thought a lot of things I'd have clobbered anyone for if they had dared to say them to me. About how we had stuck together and how any one of them would have died for me and I for any one of them.

There had been a time, of course, when it had not been that way, back in the days when they'd first signed on and had been nothing but a crew. But that day was long past; now they were more than just a crew. There had been no signing on for years, but just staying on as men who had a right to stay. And I sat there, flat on the floor, and thought how we'd finally done the thing we'd always hoped to do, how we'd caught up with the dream - us, the ragamuffin crew in the gluedtogether ship - and I felt proud and happy, not for myself alone, but for Hutch and Pancake and Doc and Frost and all the rest.

Finally I got the papers all picked up and back in the box again and tried to write up the log, but was too tired to write, so I went to bed, as I should have done in the first place.

But tired as I was, I lay there and thought of how big the silo

was and tried to estimate how many sticks might be cached away there. I got up into the trillions and I saw it was no use; there was no way to keep the figures straight.

The whole deal was big — bigger than anything we'd ever found before. It would take a group of men like us at least five lifetimes of steady hauling to empty the silo. We'd have to set up a corporation and get a legal staff (preferably one with the lowest kind of ethics) and file a claim on this planet and go through a lot of other red tape to be sure we had it all sewed up.

We couldn't take a chance of letting it slip through our fingers because of any lack of foresight. We'd have to get it all doped out before we went ahead.

I don't know about the rest of them, but I dreamed that night of wading knee-deep through a sea of crisp, crinkly banknotes.

When morning came, Doc failed to show up for breakfast. I went hunting him and found he hadn't even gone to bed. He was sprawled in his rickety old chair in the dispensary and there was one empty bottle on the floor and he trailed another, almost empty, alongside the chair, keeping a rather flimsy hold upon its neck. He still was conscious, which was about the most that could be said of him.

I was plenty sore. Doc knew the rules. He could get paralyzed as soon or as often or as long as he wanted to when we were in space, but when we were grounded and there was work to do and planet ailments to keep an eye out for, he was expected to stay sober.

I kicked the bottle out of his fist and I took him by the collar with one hand and by the seat of his britches with the other and frog-walked him to the galley.

PLUNKING him down in a chair, I yelled for Pancake to get another pot of coffee going.

"I want you sobered up," I told Doc, "so you can go out with us on the second trip. We need all the manpower we have."

Hutch had rounded up his gang and Frost had got the crew together and had rigged up a block and tackle so we could start loading. Everyone was ready to begin bringing in the cargo except Doc and I swore to myself that, before the day was over, I'd work the tail right off him.

As soon as we had breakfast, we started out. We planned to get aboard as many of the machines as we could handle and to fill in the space between them with all the sticks we could find room for.

We went down the corridors to the room that held the machines and we paired off, two men to

the machine, and started out. Everything went fine until we were more than halfway across the stretch of ground between the building and the ship.

Hutch and I were in the lead and suddenly there was an explosion in the ground about fifty feet ahead of us.

We skidded to a halt.

"It's Doc!" yelled Hutch, grabbing for his belt-gun.

I stopped him just in time. "Take it easy, Hutch."

Doc stood up in the port and waved a rifle at us.

"I could pick him off," Hutch said.

"Put back that gun," I ordered.
I walked out alone to where

Doc had placed his bullet.

He lifted his rifle and I stopped dead still. He'd probably miss, but even so, the kind of explosive charge he was firing could cut a man in two if it struck ten feet away.

"I'm going to throw away my gun," I called out to him. "I want to talk with you."

Doc hesitated for a moment. "All right. Tell the rest of them to pull back a way."

I spoke to Hutch over my shoulder. "Get out of here. Take the others with you."

"He's crazy drunk," said Hutch.
"No telling what he'll do."

"I can handle him," I said, sounding surer than I felt.

Doc let loose another bullet off to one side of us.

"Get moving, Hutch." I didn't dare look back. I had to keep an eye on Doc.

"All right," Doc finally yelled at me. "They're back. Throw away your gun."

MOVING slow so he wouldn't think I was trying to draw on him, I unfastened the buckle of the gun belt and let it fall to the ground. I walked forward, keeping my eyes on Doc, and all the time my skin kept trying to crawl up my back.

"That's far enough," Doc said when I'd almost reached the ship. "We can talk from here."

"You're drunk," I told him. "I don't know what this is all about, but I know you're drunk."

"Not nearly drunk enough. Not drunk enough by half. If I were drunk enough, I simply wouldn't care."

"What's eating you?"

"Decency," said Doc, in that hammy way of his. "I've told you many times that I can stomach looting when it involves no more than uranium and gems and other trash like that. I can even shut my eyes when you gut a culture, because you can't steal a culture — even when you get through looting it, the culture still is there and can build back again. But I balk at robbing knowledge. I will

not let you do it, Captain."

"I still say you're drunk."

"You don't even know what you've found. You are so blind and greedy that you don't recognize it."

"Okay, Doc," I said, trying to smooth his feathers, "tell me what we've found."

"A library. Perhaps the greatest, most comprehensive library in all the Galaxy. Some race spent untold years compiling the knowledge that is in that building and you plan to take it and sell it and scatter it. If that happens, in time it will be lost and what little of it may be left will be so out of context that half its meaning will be lost. It doesn't belong to us. It doesn't even belong to the human race alone. A library like that can belong only to all the peoples of the Galaxy."

"Look, Doc," I pleaded, "we've worked for years, you and I and all the rest of them. We've bled and sweated and been disappointed time and time again. This is our chance to make a killing. And that means you as well as the rest of us. Think of it, Doc — more money than you can ever spend — enough to keep you drunk the rest of your life!"

Doc swung the rifle around at me and I thought my goose was cooked. But I never moved a muscle.

I stood and bluffed it out.

A T LAST, he lowered the gun. A "We're barbarians. History is full of the likes of us. Back on Earth, the barbarians stalled human progress for a thousand years when they burned and scattered the libraries and the learning of the Greeks and Romans. To them, books were just something to start a fire with or wipe their weapons on. To you, this great cache of accumulated knowledge means nothing more than something to make a quick buck on. You'll take a scholarly study of a vital social problem and retail it as a year's vacation that can be experienced in six hours' time and you'll take -"

"Spare me the lecture, Doc," I said wearily. "Tell me what you want."

"Go back and report this find to the Galactic Commission. It will help wipe out a lot of things we've done."

"So help me, Doc, you've gone religious on us."

"Not religious. Just decent."

"And if we don't?"

"I've got the ship," said Doc.
"I have the food and water."

"You'll have to sleep."

"I'll close the port. Just try getting in."

He had us and he knew he did. Unless we could figure out a way to grab him, he had us good and proper.

I was scared, but mostly I was

burned. For years, we'd listened to him run off at the mouth and never for a moment had any of us thought he meant a word of it. And now suddenly he did—he meant every word of it.

I knew there was no way to talk him out of it. And there was no compromise. When it came right down to it, there was no agreement possible, for any agreement or compromise would have to be based on honor and we had no honor - not a one of us, not even among ourselves. It was stalemate, but Doc didn't know that yet. He'd realize it once he got a little sober and thought about it some. What he had done had been done on alcoholic impulse, but that didn't mean he wouldn't see it through.

One thing was certain: As it stood, he could outlast us.

"Let me go back," I said. "I'll have to talk this over with the others."

THINK that Doc right then began to suspect how deeply he had become committed, began to see for the first time the impossibility of us trusting one another.

"When you come back," he told me, "have it all thought out. I'll want some guarantees."

"Sure, Doc," I said.

"I mean this, Captain. I'm in deadly earnest. I'm not just fooling."

"I know you aren't, Doc."

I went back to where the others were clustered just a short distance from the building. I explained what was up.

"We'll have to spread out and charge him," Hutch decided. "He may get one or two of us, but we

can pick him off."

"He'll simply close the port," I said. "He can starve us out. In a pinch, he could try to take the ship up. If he ever managed to get sober, he could probably do it."

"He's crazy," said Pancake.

"Just plain drunken crazy."

"Sure he is," I said, "and that makes him twice as deadly. He's been brooding on this business for a long, long time. He built up a guilt complex that is three miles high. And worst of all, he's got himself out on a limb and he can't back down."

"We haven't got much time," said Frost. "We've got to think of something. A man can die of thirst. You can get awfully hungry in just a little while."

The three of them got to squabbling about what was best to do and I sat down on the sand and leaned back against one of the machines and tried to figure Doc.

Doc was a failure as a medic; otherwise he'd not have tied up with us. More than likely, he had joined us as a gesture of defiance or despair – perhaps a bit of both.

And besides being a failure, he was an idealist. He was out of place with us, but there'd been nowhere else to go, nothing else to do. For years, it had eaten at him and his values got all warped and there's no place better than deep space to get your values warped.

He was crazy as a coot, of course, but a special kind of crazy. If it hadn't been so ghastly, you might have called it glorious crazy.

You wanted to laugh him off or brush him to one side, for that was the kind of jerk he was, but he wouldn't laugh or brush.

I don't know if I heard a sound — a footstep, maybe — or if I just sensed another presence, but all at once I knew we'd been joined by someone.

I half got up and swung around toward the building and there, just outside the entrance, stood what looked at first to be a kind of moth made up in human size.

I don't mean it was an insect—
it just had the look of one. Its
face was muffled up in a cloak it
wore and it was not a human face
and there was a ruff rising from
its head like those crests you see
on the helmets in the ancient
plays.

THEN I saw that the cloak was not a cloak at all, but a part of the creature and it looked like

it might be folded wings, but it wasn't wings.

"Gentlemen," I said as quietly as I could, "we have a visitor."

I walked toward the creature soft and easy and alert, not wanting to frighten it, but all set to take evasive action if it tried to put the finger on me.

"Be ready, Hutch," I said.

"I'm covering you," Hutch assured me and it was a comfort to know that he was there. A man couldn't get into too much trouble with Hutch backing him.

I stopped about six feet from the creature and he didn't look as bad close up as he did at a distance. His eyes seemed to be kind and gentle and his funny face, alien as it was, had a sort of peacefulness about it. But even so, you can't always tell with aliens.

We stood there looking at one another. The both of us understood there was no use of talking. We just stood and sized one another up.

Then the creature took a couple of steps and reached out a hand that was more like a claw than hand. He took my hand in his and tugged for me to come.

There were just two things to do - either snatch my hand away or go.

I went.

out, but there were several fac- the room.

tors that helped make up my mind. First off, the creature seemed to be friendly and intelligent. And Hutch and all the others were there, just behind me. And over and above all, you don't get too far with aliens if you act stand-offish.

So I went.

We walked into the silo and behind me I heard the tramping feet of the others and it was a sound that was good to hear.

I didn't waste any time wondering where the creature might have come from. I admitted to myself, as I walked along, that I had been half-expecting something just like this. The silo was so big that it could hold many things, even people or creatures, we could not know about. After all, we'd explored only one small corner of the first floor of it. The creature, I figured, must have come from somewhere on the upper floors as soon as he learned about us. It might have taken quite a while, one way or another, for the news to reach him.

He led me up three ramps to the fourth floor of the building and went down a corridor for a little way, then went into a room.

It was not a large room. It held just one machine, but this one was a double model; it had two bucket seats and two helmets. I didn't stop to get it figured There was another creature in

The first one led me over to the machine and motioned for me to take one of the seats.

I STOOD there for a while, watching Hutch and Pancake and Frost and all the others crowd into the place and line up against the wall.

Frost said: "A couple of you boys better stay outside and watch the corridor."

Hutch asked me: "You going to sit down in that contraption, Captain?"

"Why not?" I said. "They seem to be all right. There's more of us than them. They don't mean us any harm."

"It's taking a chance," said Hutch.

"Since when have we stopped taking chances?"

The creature I had met outside had sat down in one of the seats, so I made a few adjustments in the other. While I was doing this, the second creature went to a file and got out two sticks, but these sticks were transparent instead of being black. He lifted off the helmets and inserted the two sticks. Then he fitted one of the helmets on his fellow-creature's head and held out the other to me.

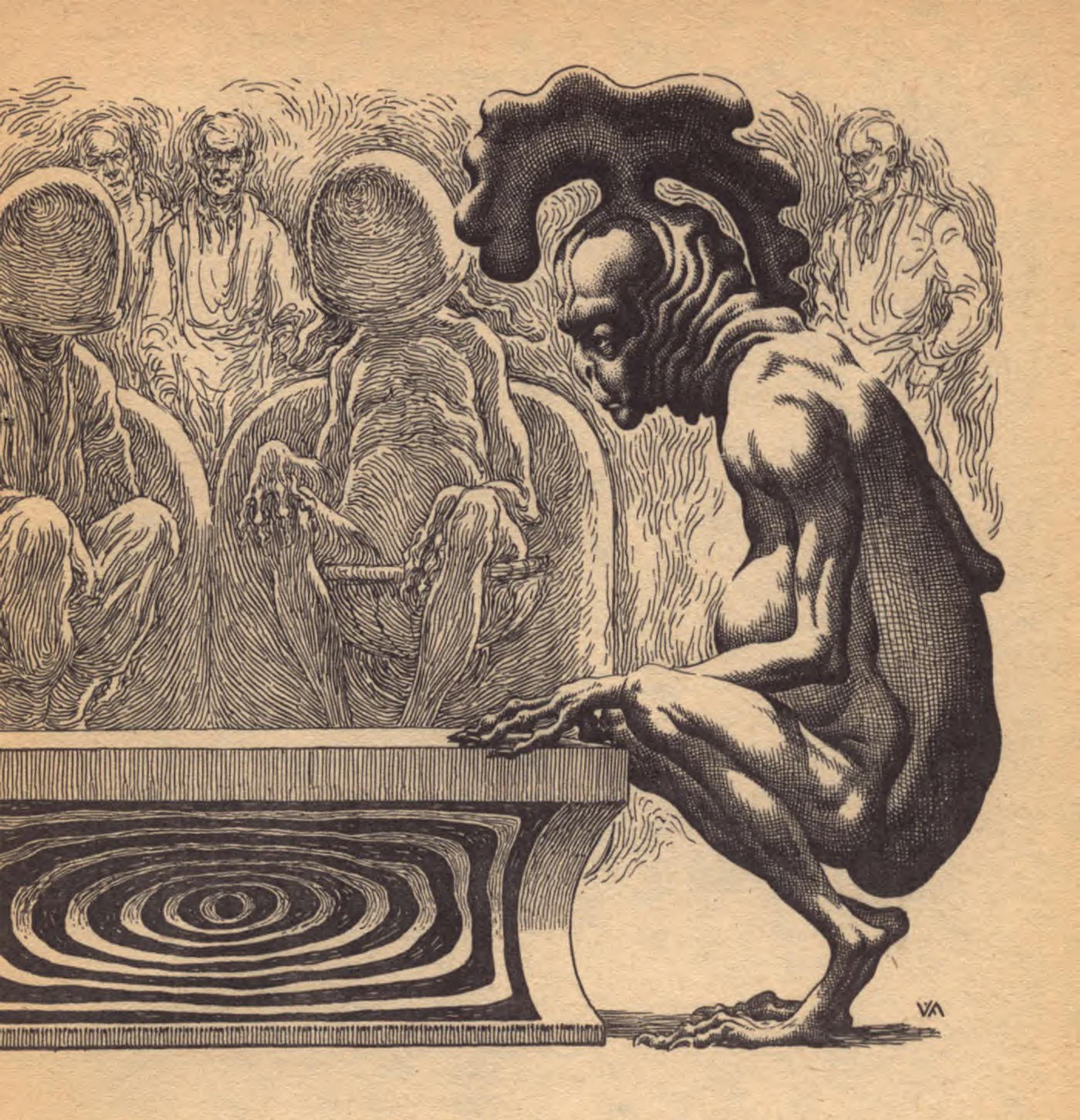
I sat down and let him put it on and suddenly I was squatting on the floor across a sort of big coffee-table from the gent I had met outside.



"Now we can talk," said the creature, "which we couldn't do before."

I wasn't scared or flustered. It seemed just as natural as if it had been Hutch across the table.

"There will be a record made of everything we say," said the



creature. "When we are finished, you will get one copy and I will get the other for our files. You might call it a pact or a contract or whatever term seems to be most applicable."

"I'm not much at contracts," I told him. "There's too much legal

flypaper tied up with most of them."

"An agreement, then," the creature suggested. "A gentlemen's agreement."

"Good enough," I said.

Agreements are convenient things. You can break them any time you want. Especially gentlemen's agreements.

"I suppose you have figured out what this place is," he said.

"Well, not for sure," I replied.
"Library is the closest that we have come."

"It's a university, a galactic university. We specialize in extension or home-study courses."

I'm afraid I gulped a bit. "Why, that's just fine."

"Our courses are open to all who wish to take them. There are no entrance fees and there is no tuition. Neither are there any scholastic requirements for enrollment. You yourself can see how difficult it would be to set up such requirements in a galaxy where there are many races of varying viewpoints and abilities."

"You bet I can.

"The courses are free to all who can make use of them," he said. "We do expect, of course, that they make proper use of them and that they display some diligence in study."

"You mean anyone at all can enroll?" I asked. "And it don't cost anything?"

AFTER the first disappointment, I was beginning to see the possibilities. With bona fide university educations for the taking, it would be possible to set up one of the sweetest rackets that anyone could ask for.

"There's one restriction," the creature explained. "We cannot, obviously, concern ourselves with individuals. The paperwork would get completely out of hand. We enroll cultures. You, as a representative of your culture—what is it you call yourselves?"

"The human race, originally of the planet Earth, now covering some half million cubic lightyears. I'd have to see your chart . . ."

"That's not necessary at the moment. We would be quite happy to accept your application for the entrance of the human race."

It took the wind out of me for a minute. I wasn't any representative of the human race. And if I could be, I wouldn't. This was my deal, not the human race's. But I couldn't let him know that, of course. He wouldn't have done business with me.

"Now not so fast," I pleaded.
"There's a question or two I'd like
to have you answer. What kind of
courses do you offer? What kind
of electives do you have?"

"First there is the basic course," the creature said. "It is more or less a familiarization course, a sort of orientation. It includes those subjects which we believe can be of the most use to the race in question. It is, quite naturally, tailored specifically for each student culture. After that, there is

a wide field of electives, hundreds of thousands of them."

"How about final exams and tests and things like that?" I wanted to know.

"Oh, surely," said the creature.

"Such tests are conducted every

- tell me about your time system."

I told him the best I could and he seemed to understand.

"I'd say," he finally said, "that about every thousand years of your time would come fairly close. It is a long-range program and to conduct tests any oftener would put some strain upon our resources and might be of little value."

That decided me. What happened a thousand years from now was no concern of mine.

I asked a few more questions to throw him off the track — just in case he might have been suspicious — about the history of the university and such.

I still can't believe it. It's hard to conceive of any race working a million years to set up a university aimed at the eventual education of an entire galaxy, traveling to all the planets to assemble data, compiling the records of countless cultures, correlating and classifying and sorting out that mass of information to set up the study courses.

It was just too big for a man to grasp.

FOR A while, he had me reeling on the ropes and faintly starry-eyed about the whole affair. But then I managed to snap back to normal.

"All right, Professor," I said, "you can sign us up. What am I supposed to do?"

"Not a thing," he said. "The recording of our discussion will supply the data. We'll outline the course of basic study and you then may take such electives as you wish."

"If we can't haul it all in one trip, we can come back again?" I asked.

"Oh, definitely. I anticipate you may wish to send a fleet to carry all you need. We'll supply sufficient machines and as many copies of the study recordings as you think you will need."

"It'll take a lot," I said bluntly, figuring I'd start high and haggle my way down. "An awful lot."

"I am aware of that," he told me. "Education for an entire culture is no simple matter. But we are geared for it."

So there we had it — all legal and airtight. We could get anything we wanted and as much as we wanted and we'd have a right to it. No one could say we stole it. Not even Doc could say that.

The creature explained to me the system of notation they used on the recording cylinders and how the courses would be boxed

and numbered so they could be used in context. He promised to supply me with recordings of the electives so I could pick out what we wanted.

He was real happy about finding another customer and he proudly told me of all the others that they had and he held forth at length on the satisfaction that an educator feels at the opportunity to pass on the torch of knowledge.

He had me feeling like a heel.
Then we were through and I
was sitting in the seat again and
the second creature was taking
the helmet off my head.

I got up and the first creature rose to his feet and faced me. We couldn't talk any more than we could to start with. It was a weird feeling, to face a being you've just made a deal with and not be able to say a single word that he can understand.

But he held out both his hands and I took them in mine and he gave my hands a friendly squeeze.

"Why don't you go ahead and kiss him?" asked Hutch. "Me and the boys will look the other way."

Ordinarily, I'd have slugged Hutch for a crack like that, but I didn't even get sore.

The second creature took the two sticks out of the machine and handed one to me. They'd gone in transparent, but they came out black.

"Let's get out of here," I said. We got out as fast as we could and still keep our dignity — if you could call it that.

O UTSIDE the silo, I got Hutch and Pancake and Frost together and told them what had happened.

"We got the Universe by the tail," I said, "with a downhill pull."

"What about Doc?" asked Frost.

"Don't you see? It's just the kind of deal that would appeal to him. We can let on we're noble and big-hearted and acting in good faith. All I need to do is get close enough to grab him."

"He won't even listen to you," said Pancake. "He won't believe a word you say."

"You guys stay right here," I said. "I'll handle Doc."

I walked back across the stretch of ground between the building and the ship. There was no sign of Doc. I was all set to holler for him, then thought better of it. I took a chance and started up the ladder. I reached the port and there was still no sign of him.

I moved warily into the ship. I thought I knew what had become of him, but there was no need to take more chances than I had to.

I found him in his chair in the dispensary. He was stiffer than a goat. The gun lay on the floor.

There were two empty bottles beside the chair.

I stood and looked at him and knew what had happened. After I had left, he had got to thinking about the situation and had run into the problem of how he'd climb down off that limb and he had solved it the way he'd solved most of his problems all his life.

I got a blanket and covered him. Then I rummaged around and found another bottle. I uncorked it and put it beside the chair, where he could reach it easy. Then I picked up the gun and went to call the others in.

I lay in bed that night and thought about it and it was beautiful.

There were so many angles that a man didn't know quite where to start.

There was the university racket which, queerly enough, was entirely legitimate, except that the professor out in the silo never meant it to be sold.

And there was the quickie vacation deal, offering a year or two on an alien planet in six hours of actual time. All we'd need to do was pick a number of electives in geography or social science or whatever they might call it.

There could be an information bureau or a research agency, charging fancy prices to run down facts on any and all subjects.

Without a doubt, there'd be some on-the-spot historical recordings and with those in hand, we could retail adventure, perfectly safe adventure, to the stay-at-homes who might hanker for it.

I thought about that and a lot of other things which were not quite so sure, but at least probable and worth investigating, and I thought, too, about how the professors had finally arrived at what seemed to me a sure-fire effective medium for education.

You wanted to know about a thing, so you up and lived it; you learned it on the ground. You didn't read about it or hear about it or even see it in plain three-dimension—you experienced it. You walked the soil of the planet you wanted to know about; you lived with the beings that you wished to study; you saw as an eyewitness, and perhaps as a participant, the history that you sought to learn.

A ND it could be used in other ways as well. You could learn to build anything, even a space-ship, by actually building one. You could learn how an alien machine might operate by putting it together, step by simple step. There was no field of knowledge in which it would not work — and work far better than standard educational methods.

Right then and there, I made

up my mind we'd not release a single stick until one of us had previewed it. No telling what a man might find in one of them that could be put to practical use.

I fell asleep dreaming about chemical miracles and new engineering principles, of better business methods and new philosophic concepts. And I even figured out how a man could make a mint of money out of a philosophic concept.

We were on top of the Universe for sure. We'd set up a corporation with more angles than you could shake a stick at. We would be big time. In a thousand years or so, of course, there'd be a reckoning, but none of us would be around to take part in it.

DOC sobered up by morning and I had Frost heave him in the brig. He wasn't dangerous any longer, but I figured that a spell in pokey might do him a world of good. After a while, I intended to talk to him, but right at the moment I was much too busy to be bothered with him.

I went over to the silo with Hutch and Pancake and had another session with the professor on the double-seat machine and picked out a batch of electives and settled various matters.

Other professors began supplying us with the courses, all boxed and labeled, and we set the crew and the engine gang to work hauling them and the machines aboard and stowing them away.

Hutch and I stood outside the silo and watched the work go on.

"I never thought," said Hutch,
"that we'd hit the jackpot this
way. To be downright honest
with you, I never thought we'd hit
it. I always thought we'd just go
on looking. It goes to show how
wrong a man can be."

"Those professors are soft in the head," I said. "They never asked me any questions. I can think of a lot they could have asked that I couldn't answer."

"They're honest and think everyone's the same. That's what comes of getting so wrapped up in something you have time for nothing else."

And that was true enough. The professor race has been busy for a million years doing a job it took a million years to do—and another million and a million after that—and that never would be finished.

"I can't figure why they did it," I said. "There's no profit in it."

"Not for them," said Hutch, but there is for us. I tell you, Captain, it takes brains to work out the angles."

I told him what I had figured out about previewing everything before we gave it out, so we would be sure we let nothing slip away from us.

HUTCH was impressed. "I'll say this for you, Captain—you don't miss a bet. And that's the way it should be. We might as well milk this deal for every cent it's worth."

"I think we should be methodical about this previewing business," I said. "We should start at the beginning and go straight through to the end."

Hutch said he thought so, too. "But it will take a lot of time," he warned me.

"That's why we should start right now. The orientation course is on board already and we could start with that. All we'd have to do is set up a machine and Pancake could help you with it."

"Help me!" yelled Hutch. "Who said anything about me doing it? I ain't cut out for that stuff. You know yourself I never do any reading—"

"It isn't reading. You just live it. You'll be having fun while we're out here slaving."

"I won't do it."

"Now look," I said, "let's use a little sense. I should be out here at the silo seeing everything goes all right and close at hand so I can hold a powwow with the professor if there's any need of it. We need Frost to superintend the loading. And Doc is in the clink. That leaves you and Pancake. I can't trust Pancake with that previewing job. He's too scatter-

brained. He'd let a fortune glide right past him without recognizing it. Now you're a fast man with a buck and the way I see it —"

"Since you put it that way," said Hutch, all puffed up, "I suppose I am the one who should be doing it."

That evening, we were all dogtired, but we felt fine. We had made a good start with the loading and in a few more days would be heading home.

Hutch seemed to be preoccupied at supper. He fiddled with his food. He didn't talk at all and he seemed like a man with something on his mind.

As soon as I could, I cornered him.

"How's it going, Hutch?"

"Okay," he said. "Just a lot of gab. Explaining what it's all about. Gab."

"Like what?"

"Some of it is hard to tell. Take a lot of explaining I haven't got the words for. Maybe one of these days you'll find the time to run through it yourself."

"You can bet your life I will,"
I said, somewhat sore at him.

"There's nothing worth a dime in it so far," said Hutch.

I believed him on that score. Hutch could spot a dollar twenty miles away.

I went down to the brig to see Doc. He was sober. Also unrepentant. "You outreached yourself this time," he said. "That stuff isn't yours to sell. There's knowledge in that building that belongs to the Galaxy – for free."

I EXPLAINED to him what had happened, how we'd found the silo was a university and how we were taking the courses on board for the human race after signing up for them all regular and proper. I tried to make it sound as if we were being big, but Doc wouldn't buy a word of it.

"You wouldn't give your dying grandma a drink of water unless she paid you in advance," he said. "Don't give me any of that guff about service to humanity."

So I left him to stew in the brig a while and went up to my cabin. I was sore at Hutch and all burned up at Doc and my tail was dragging. I fell asleep in no time.

The work went on for several days and we were almost finished.

I felt pretty good about it. After supper, I climbed down the ladder and sat on the ground beside the ship and looked across at the silo. It still looked big and awesome, but not as big as that first day – because now it had lost some of its strangeness and even the purpose of it had lost some of its strangeness, too.

Just as soon as we got back to civilization, I promised myself,

we'd seal the deal as tight as possible. Probably we couldn't legally claim the planet because the professors were intelligent and you can't claim a planet that has intelligence, but there were plenty of other ways we could get our hooks into it for keeps.

I sat there and wondered why no one came down to sit with me, but no one did, so finally I clambered up the ladder.

I went down to the brig to have a word with Doc. He still was unrepentant, but he didn't seem too hostile.

"You know, Captain," he said, "there have been times when I've not seen eye to eye with you, but despite that I've respected you and sometimes even liked you."

"What are you getting at?" I asked him. "You can't soft-talk yourself out of the spot you're in."

"There's something going on and maybe I should tell you. You are a forthright rascal. You don't even take the trouble to deny you are. You have no scruples and probably no morals, and that's all right, because you don't pretend to have. You are —"

"Spit it out! If you don't tell me what is going on, I'll come in there and wring it out of you."

"Hutch has been down here several times," said Doc, "inviting me to come up and listen to one of those recordings he is fooling with. Said it was right down my

alley. Said I'd not be sorry. But there was something wrong about it. Something sneaky." He stared round-eyed through the bars at me. "You know, Captain, Hutch was never sneaky."

"Well, go on!"

"Hutch has found out something, Captain. If I were you, I'd be finding out myself."

I didn't even wait to answer him. I remembered how Hutch had been acting, fiddling with his food and preoccupied, not talking very much. And come to think of it, some of the others had been acting strangely, too. I'd just been too busy to give it much attention.

RUNNING up the catwalks, I cussed with every step I took. A captain of a ship should never get so busy that he loses touch—he has to stay in touch all the blessed time. It had all come of being in a hurry, of wanting to get loaded up and out of there before something happened.

And now something had happened. No one had come down to sit with me. There'd not been a dozen words spoken at the supper table. Everything felt deadly wrong.

Pancake and Hutch had rigged up the chart room for the previewing chore and I busted into it and slammed the door and stood with my back against it.

Not only Hutch was there, but Pancake and Frost as well and, in the machine's bucket seat, a man I recognized as one of the engine gang.

I stood for a moment without saying anything, and the three of them stared back at me. The man with the helmet on his head didn't notice — he wasn't even there.

"All right, Hutch," I said, "come clean. What is this all about? Why is that man previewing? I thought just you and —"

"Captain," said Frost, "we were about to tell you."

"You shut up! I am asking Hutch."

"Frost is right," said Hutch.
"We were all set to tell you. But
you were so busy and it came a
little hard . . ."

"What is hard about it?"

"Well, you had your heart all set to make yourself a fortune. We were trying to find a way to break it to you gentle."

I left the door and walked over to him.

"I don't know what you're talking about," I said, "but we still
make ourselves a killing. There
never was a time of day or night,
Hutch, that I couldn't beat your
head in and if you don't want me
to start, you better talk real fast."

"We'll make no killing, Captain," Frost said quietly. "We're taking this stuff back and we'll turn it over to the authorities." "For years, we've slaved and sweated, hunting for the jackpot. And now that we have it in our mitts, now that we can walk barefooted through a pile of thousand-dollar bills, you are going chicken on me. What's—"

"It's not right for us to do it, sir," said Pancake.

And that "sir" scared me more than anything that had happened so far. Pancake had never called me that before.

LOOKED from one to the other of them and what I saw in their faces chilled me to the bone. Every single one of them thought just the same as Pancake.

"That orientation course!" I shouted.

Hutch nodded. "It explained about honesty and honor."

"What do you scamps know about honesty and honor?" I raged. "There ain't a one of you that ever drew an honest breath."

"We never knew about it before," said Pancake, "but we know about it now."

"It's just propaganda! It's just a dirty trick the professors played on us!"

And it was a dirty trick. Although you have to admit the professors knew their onions. I don't know if they figured us humans for a race of heels or if the orientation course was just nor-

mal routine. But no wonder they hadn't questioned me. No wonder they'd made no investigation before handing us their knowledge. They had us stopped before we could even make a move.

"We felt that since we had learned about honesty," said Frost, "it was only right the rest of the crew should know. It's an awful kind of life we've been living, Captain."

"So," said Hutch, "we been bringing in the men, one by one, and orienting them. We figured it was the least that we could do. This man is about the last of them."

"A missionary," I said to Hutch.
"So that is what you are. Remember what you told me one night?
You said you wouldn't be a missionary no matter what they paid you."

"There's no need of that," Frost replied coldly. "You can't shame us and you can't bully us. We know we are right."

"But the money! What about the corporation? We had it all planned out!"

Frost said: "You might as well forget it, Captain. When you take the course —"

"I'm not taking any course."
My voice must have been as deadly as I felt, for not a one of them made a move toward me. "If any of you mealy-mouthed missionaries feel an urge to make

me, you can start trying right now."

They still didn't move. I had them bluffed. But there was no point in arguing with them. There was nothing I could do against that stone wall of honesty and honor.

I turned my back on them and walked to the door. At the door, I stopped. I said to Frost: "You better turn Doc loose and give him the cure. Tell him it's all right with me. He has it coming to him. It will serve him right."

Then I shut the door behind me and went up the catwalk to my cabin. I locked the door, a thing I'd never done before.

I sat down on the edge of the bunk and stared at the wall and thought.

THERE was just one thing they had forgotten. This was my ship, not theirs. They were just the crew and their papers had run out long ago and never been renewed.

I got down on my hands and knees and hauled out the tin box I kept the papers in. I went through it systematically and sorted out the papers that I needed - the title to the ship and the registry and the last papers they had signed.

I laid the papers on the bunk way and sat down again. turned down the offer."

I picked up the papers and shuffled them from one hand to the other.

I could throw them off the ship any time I wished. I could take off without them and there was nothing, absolutely nothing, they could do about it.

And what was more, I could get away with it. It was legal, of course, but it was a rotten thing to do. Now that they were honest men and honorable, though, they'd bow to the legality and let me get away with it. And in such a case, they had no one but themselves to thank.

I sat there for a long time thinking, but my thoughts went round and round and mostly had to do with things out of the past -how Pancake had gotten tangled up in the nettle patch out in the Coonskin System and how Doc had fallen in love with (of all things) a tri-sexual being that time we touched at Siro and how Hutch had cornered the liquor supply at Munko, then lost it in a game that was akin to craps except the dice were queer little living entities that you had no control of, which made it tough on Hutch.

A rap came at the door.

It was Doc.

"You all full of honesty?" I asked him.

and shoved the box out of the He shuddered. "Not me. I

"It's the same kind of swill you were preaching at me just a couple of days ago."

"Can't you see," asked Doc, "what it would do the human race?"

"Sure. It'll make them honorable and honest. No one will ever cheat or steal again and it will be cozy . . ."

"They'll die of complicated boredom," said Doc. "Life will become a sort of cross between a Boy Scout jamboree and a ladies sewing circle. There'll be no loud and unseemly argument and they'll be polite and proper to the point of stupefaction."

"So you have changed your mind."

"Not really, Captain. But this is the wrong way to go about it. Whatever progress the race has ever made has been achieved by the due process of social evolution. In any human advance, the villains and the rascals are as important as the forward-looking idealist. They are Man's consciences and Man can't get along without them."

"If I were you, Doc," I said, "I wouldn't worry so much about the human race. It's a pretty big thing and it can take a lot of bumps. Even an overdose of honesty won't hurt it permanently."

Actually, I didn't give a damn. could chan I had other things on my mind the same." right then.

DOC crossed the room and sat down on the bunk beside me. He leaned over and tapped the papers I still held in my hand.

"You got it all doped out," he said.

I nodded bleakly. "Yeah."

"I thought you would."

I shot a quick glance at him. "You were way ahead of me. That's why you switched over."

Doc shook his head emphatically. "No. Please believe me, Captain, I feel as bad as you do."

"It won't work either way." I shuffled the papers. "They acted in good faith. They didn't sign aboard, sure. But there was no reason that they should have. It was all understood. Share and share alike. And that's the way it's been for too long to repudiate it now. And we can't keep on. Even if we agreed to dump the stuff right here and blast off and never think of it again, we'd not get rid of it. It would always be there. The past is dead, Doc. It's spoiled. It's smashed and it can't be put back together."

I felt like bawling. It had been a long time since I had felt that full of grief.

"They are different kind of men now," I said. "They went and changed themselves and they'll never be the same. Even if they could change back, it wouldn't be the same."

Doc mocked me a little. "The

race will build a monument to you. Maybe actually on Earth itself, with all the other famous humans, for bringing back this stuff. They'd be just blind enough to do it."

I got up and paced the floor. "I don't want any monument. I'm not bringing it in. I'm not having anything more to do with it."

I stood there, wishing we had never found the silo, for what had it done for me except to lose me the best crew and the best friends a man had ever had?

"The ship is mine," I said.
"That is all I want. I'll take the cargo to the nearest point and dump it there. Hutch and the rest of them can carry on from there, any way they can. They can have the honesty and honor. I'll get another crew."

MAYBE, I thought, some day it would be almost the way it had been. Almost, but not quite.

"We'll go on hunting," I said.
"We'll dream about the jackpot.
We'll do our best to find it. We'll do anything to find it. We'll break all the laws of God or Man to find it. But you know something, Doc?"

"No, I don't," said Doc.

"I hope we never find it. I don't want to find another. I just want to go on hunting."

We stood there in the silence, listening to the fading echoes of those days we hunted for the jackpot.

"Captain," said Doc, "will you take me along?"

I nodded. What was the difference? He might just as well.

"Captain, you remember those insect mounds on Suud?"

"Of course. How could I forget them?"

"You know, I've figured out a way we might break into them. Maybe we should try it. There should be a billion . . ."

I almost clobbered him.
I'm glad now that I didn't.
Suud is where we're headed.

If Doc's plan works out, we may hit that jackpot yet!

- CLIFFORD D. SIMAK

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"Hmm, yes. I was just cogitating upon the causes of GALAXY Science Fiction's phenomenal growth in popularity."

"And that needs an explanation, Professor?"

"From a socio-psychological viewpoint, most definitely. To what do you attribute the constant increase of interest?"

"Well . . . let's try it this way, Professor. Suppose we ask the questions and you answer them."

"So? A bit unusual, but go right ahead."

"Do you think atomic doom is the only future for mankind?"

"Not exactly, but the newspapers and the commentators—"

"Of course. Well, we SHOW other possible futures. Do you believe we will be able to leave the Earth?"

"Eventually, perhaps. But not in our lifetime."

"We don't agree. Assuming you're right, though, isn't that all the more reason to want to know what we'll find on other planets, Professor?"

"I think I see what you mean."

"Can we achieve immortality?"

"Ah. Hum. I've often wondered."

"And travel to different eras in time?"

"That would be exciting."

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