NOW PUBLISHED EVERY MONTH! 25c

ANC

STARTLING STORIES

FEB.

FEATURING

VULCAN'S DOLLS

THEY CONTROL HUMAN DESTINY

A NOVEL BY

MARGARET ST. CLAIR

•

THE SHADOWS

By LEIGH BRACKETT

•

A VIOLATION OF RULES

By FLETCHER PRATT

A THRILLING PUBLICATION

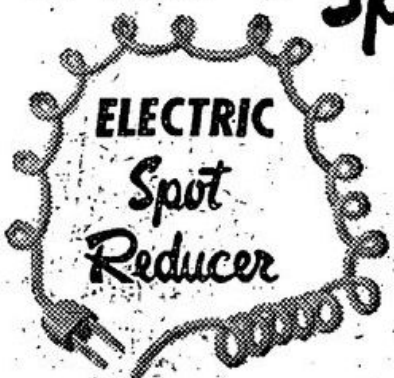
Reducing Specialist Says:

LOSE WEIGHT Where It Shows Most REDUCE MOST ANY PART OF THE BODY WITH

UNDERWRITERS LABORATORY APPROVED

Spot Reducer

Relaxing • Soothing Penetrating Massage



PLUG IN GRASP HANDLE AND APPLY

FOR GREATEST BENEFIT IN REDUCING by massage use Spot REDUCER with or without electricity—Also used as an aid in the relief of pains for which massage is indicated.

TAKE OFF EXCESS WEIGHT!

Don't Stay FAT—You Can Lose POUNDS and INCHES SAFELY Without Risking HEALTH

Take pounds off—keep slim and trim with Spot Reducer! Remarkable new invention which uses one of the most effective reducing methods employed by masseurs and turkish baths—MASSAGE!

LIKE a magic wand, the "Spot Reducer" obeys your every wish. Most any part of your body where it is loose and flabby, wherever you have extra weight and inches, the "Spot Reducer" can aid you in acquiring a youthful, slender and graceful figure. The beauty of this scientifically designed Reducer is that the method is so simple and easy, the results quick, sure and harmless. No exercise or strict diets. No steambaths, drugs or laxatives.

With the SPOT REDUCER you can now enjoy the benefits of RELAXING, SOOTHING massage in the privacy of your own home! Simple to use—just plug in, grasp handle and apply over most any part of the body—stomach, hips, chest, neck, thighs, arms, buttocks, etc. The relaxing, soothing massage breaks down FATTY TISSUES, tones the muscles and flesh, and the increased awakened blood circulation carries away waste fat—helps you regain and keep a firmer and more GRACEFUL FIGURE!

Your Own Private Masseur at Home

When you use the Spot Reducer, it's almost like having your own private masseur at home. It's fun reducing this way! It not only helps you reduce and keep slim—but also aids in the relief of those types of aches and pains—and tired nerves that can be helped by massage! The Spot Reducer is handsomely made of light weight aluminum and rubber and truly a beautiful invention you will be thankful you own. AC 110 volts. Underwriters laboratory approved.

MAIL THIS 10-DAY FREE TRIAL COUPON NOW!

TRY THE SPOT REDUCER 10 DAYS FREE IN YOUR OWN HOME!

Mail this coupon with only $1 for your Spot Reducer on approval. Pay postman $8.95 plus delivery—or send $9.95 (full price) and we ship postage prepaid. Use it for ten days in your own home. Then if not delighted return Spot Reducer for full purchase price refund. Don't delay! You have nothing to lose—except ugly, embarrassing, undesirable pounds of FAT. MAIL COUPON now!

ALSO USE IT FOR ACHES AND PAINS

CAN'T SLEEP

Relax with electric Spot Reducer. See how soothing its gentle massage can be. Helps you sleep when massage can be of benefit.

MUSCULAR ACHES:

A handy helper for transient relief of discomforts that can be aided by gentle, relaxing massage.

LOSE WEIGHT OR NO CHARGE

USED BY EXPERTS

Thousands have lost weight this way—in hips, abdomen, legs, arms, necks, buttocks, etc. The same method used by stage, screen and radio personalities and leading reducing salons. The Spot Reducer can be used in your spare time, in the privacy of your own room.

ORDER IT TODAY!

SENT ON APPROVAL—MAIL COUPON NOW!

SPOT REDUCER CO., Dept. E-811
1025 Broad St., Newark, New Jersey

Please send me the Spot Reducer for 10 days trial period. I enclose $1. Upon arrival I will pay postman only $8.95 plus postage and handling. If not delighted I may return SPOT REDUCER within 10 days for prompt refund of full purchase price.

Name .....

Address .....

City ..... State .....

☐ SAVE POSTAGE — check here if you enclose $9.95 with coupon. We pay all postage and handling charges. Same money back guarantee applies.

LOSE WEIGHT OR NO CHARGE

Give yourself an even break!

I.C.S. training is a key to advancement. Here's how three men cashed in on these down-to-earth home study courses.

"After serving with the U. S. Army Air Forces in World War II, I went to work for a sign company. Decided to take an I. C. S. course in Show Card and Sign Lettering to get ahead. Soon after beginning the course I became a partner in another sign company, and after finishing my I. C. S. training, I started my own sign business in California."

"When I enrolled for my I. C. S. Aeronautical Engineer's Course, I was an Aircraft Crew Alert, Grade 10, Step 2, but now I'm an Aircraft Service Mechanic, Grade 15, Step 3, at Scott Air Force Base, Belleville, Illinois. My advancement brought an increase in salary of 45.2%. The Progress Reports sent my employer played a very important part in my promotion. Many a time, your lessons went right on the job with me!"

"I signed up for I. C. S. training while working in a plant. Right away things happened. You might say that promotions outstripped my ability to keep up with my I. C. S. lessons. Recently I was made foreman of the welding setup and Assembly Department, and now I'm in charge of training three other men for promotion. Naturally, I'm determined to finish my I. C. S. training."

You, too, will find that I.C.S. home study pays off in better pay and better jobs. Why not fill out and mail the coupon below—right now?

INTERNATIONAL CORRESPONDENCE SCHOOLS

ICS

BOX 3968-W, SCRANTON 9, PENNA.

Without cost or obligation, please send me full particulars about the course BEFORE which I have marked X:

Air Conditioning and Plumbing Courses
- ☐ Air Conditioning ☐ Heating
- ☐ Plumbing ☐ Refrigeration
- ☐ Refrigeration, Domestic
- ☐ Refrigeration & Air Conditioning
- ☐ Steam Fitting

Aeronautics Courses
- ☐ Aeronautical Engineer's, Jr.
- ☐ Aircraft Drafting & Design
- ☐ Aircraft Mechanic
- ☐ Engine Mechanic

Automotive Courses
- ☐ Automobile ☐ Auto Technician
- ☐ Auto Electric Technician
- ☐ Auto Body Rebuilding & Refinishing

Chemical Courses
- ☐ Chemical Engineering
- ☐ Chemistry, Analytical
- ☐ Chemistry, Industrial
- ☐ Food-Plant Sanitation
- ☐ Petroleum Refining ☐ Plastics
- ☐ Pulp and Paper Making

Civil Engineering and Architectural Courses
- ☐ Architecture ☐ Architectural Drafting
- ☐ Bridge and Building Foreman
- ☐ Building Estimating
- ☐ Civil Engineering
- ☐ Contracting and Building
- ☐ Highway Engineering
- ☐ Reading Structural Blueprints
- ☐ Sanitary Engineering
- ☐ Structural Drafting
- ☐ Structural Engineering
- ☐ Surveying and Mapping

Communications Courses
- ☐ Electronics
- ☐ Practical Telephony
- ☐ Radio, General ☐ Radio Operating
- ☐ Radio Servicing ☐ Television
- ☐ Telegraph Engineering

Electrical Courses
- ☐ Electrical Drafting
- ☐ Electrical Engineering
- ☐ Electric Light and Power
- ☐ Lighting Technician
- ☐ Practical Electrician

Diesel Engines Courses
- ☐ Diesel Engines
- ☐ Internal Combustion Engines

Mechanical Courses
- ☐ Forging ☐ Foundry Work
- ☐ Heat Treatment of Metals
- ☐ Industrial Engineering
- ☐ Industrial Instrumentation
- ☐ Industrial Metallurgy
- ☐ Machine Shop
- ☐ Mechanical Drafting
- ☐ Mechanical Engineering
- ☐ Mold-Loft Work
- ☐ Patternmaking—Wood, Metal
- ☐ Reading Shop Blueprints
- ☐ Sheet-Metal Drafting
- ☐ Sheet-Metal Worker
- ☐ Ship Drafting ☐ Ship Fitting
- ☐ Tool Designing ☐ Toolmaking
- ☐ Welding—Gas and Electric

Railroad Courses
- ☐ Air Brake ☐ Car Inspector
- ☐ Diesel Locomotive
- ☐ Locomotive Engineer
- ☐ Locomotive Fireman
- ☐ Locomotive Machinist
- ☐ Railroad Section Foreman
- ☐ Steam-Diesel Locomotive Eng.

Stationary Engineering Courses
- ☐ Power Plant Engineering
- ☐ Stationary Fireman
- ☐ Stationary Steam Engineering

Textile Courses
- ☐ Cotton Manufacturing
- ☐ Loom Fixing ☐ Rayon Mfg.
- ☐ Textile Engineering
- ☐ Woolen Manufacturing

Business and Academic Courses
- ☐ Accounting ☐ Advertising
- ☐ Bookkeeping
- ☐ Business Administration
- ☐ Business Correspondence
- ☐ Business Law ☐ Cartooning
- ☐ Certified Public Accounting
- ☐ Commercial ☐ Commercial Art
- ☐ Cost Accounting
- ☐ Fashion & Book Illustration
- ☐ Federal Tax ☐ First Year College
- ☐ Foremanship
- ☐ Good English ☐ High School
- ☐ Higher Mathematics
- ☐ Industrial Supervision
- ☐ Motor Traffic
- ☐ Personnel—Labor Relations
- ☐ Postal Civil Service ☐ Retailing
- ☐ Retail Business Management
- ☐ Salesmanship ☐ Secretarial
- ☐ Sign Lettering ☐ Stenography
- ☐ Traffic Management

Name_____ Age_____ Home Address_____

City_____ State_____ Working Hours_____ A.M. to_____ P.M.

Present Position_____ Employed by_____

Special tuition rates to members of the Armed Forces. Canadian residents send coupon to International Correspondence Schools Canadian, Ltd., Montreal, Canada.

NOW PUBLISHED EVERY MONTH

STARTLING STORIES

Vol. 25, No. 1 A THRILLING PUBLICATION February, 1952

A Complete Novel

A Novelet

Short Stories

Features

SAMUEL MINES, *Editor*

STARTLING STORIES. Published every month by Better Publications, Inc., N. L. Pines, President; at 1125 E. Valle Ave., Kokomo, Ind. Editorial and executive offices, 10 East 40th St., New York 16, N. Y. Entered as second-class matter at the post office at Kokomo, Ind., under the act of March 3, 1879. Subscription (12 issues), $3.00; single copies, $.25; foreign and Canadian postage extra. In corresponding with this magazine please include postal zone number, if any. Manuscripts will not be returned unless accompanied by self-addressed, stamped envelopes and are submitted at the author's risk. Names of all characters used in stories and semi-fiction articles are fictitious. If the name of any living person or existing institution is used, it is a coincidence. February, 1952, issue.
PRINTED IN THE U.S.A.

BE A SUCCESS AS A RADIO-TELEVISION TECHNICIAN

2 FREE BOOKS SHOW HOW MAIL COUPON

America's Fast Growing Industry Offers You

EXTRA PAY IN ARMY, NAVY, AIR FORCE

If you expect to go into military service, mail coupon NOW. Knowing Radio, TV, Electronics can help you get extra rank, extra prestige, more interesting duty at pay up to several times a private's base pay. You are also prepared for good Radio-TV jobs upon leaving service. IT'S SMART TO TRAIN WITH N. R. I. NOW. Mail Coupon TODAY.

I TRAINED THESE MEN

Shop Specializes in Television. "Have my own shop. Am authorized serviceman for 5 large manufacturers, do servicing for 7 dealers. N.R.I. enabled me to build enviable reputation." P. MILLER, Maumee, Ohio.

NRI Graduate Doubles Salary. "Am with Station WKBO as transmitter operator. More than doubled salary since starting in Radio full time. N. R. I. has been helpful to me." A. HERR, New Cumberland, Pa.

$10 Week in Spare Time. "Before finishing course, I earned as much as $10 a week in Radio servicing in spare time. I recommend N. R. I. to everyone who shows interest in Radio." S. J. PETRUFF, Miami, Florida.

Gets First Job Through N.R.I. "My first job was operator with KDLR, obtained for me by your Graduate Service Dept., I am now Chief Eng. of Police Radio Station WQOX." T. S NORTON, Hamilton, Ohio.

1. EXTRA MONEY • IN SPARE TIME

Many students make $5, $10 a week extra fixing neighbors' Radios in spare time while learning. The day you enroll I start sending you SPECIAL BOOKLETS to show you how to do this. Tester you build with parts I send helps you service sets. All equipment is yours to keep.

2. GOOD PAY JOB

Your next step is a good job installing and servicing Radio-Television sets or becoming boss of your own Radio-Television sales and service shop or getting a good job in a Broadcasting Station. Today there are over 90,000,000 home and auto Radios. 3100 Broadcasting Stations are on the air. Aviation and Police Radio, Micro-Wave Relay, Two-Way Radio are all expanding, making more and better opportunities for servicing and communication technicians and FCC licensed operators.

3. BRIGHT FUTURE

And think of the opportunities in Television! In 1950 over 5,000,000 Television sets were sold. By 1954 authorities estimate 25,000,000 Television sets will be in use. Over 100 Television Stations are now operating, with experts predicting 1,000. Now is the time to get in line for success and a bright future in America's fast-growing industry. Be a Radio-Television Technician. Mail coupon for Lesson and Book—FREE.

I Will Train You at Home

Read How You Practice Servicing or Communications with Many Kits of Parts You Get!

I send you many valuable Kits of parts for **PRACTICAL EXPERIENCE.** They "bring to life" theory you learn in my illustrated texts. As part of my Servicing Course, you build a complete, powerful Radio Receiver, a Multitester useful in earning extra spare time money, AM and FM Signal Generator, etc. In my Communications Course, you assemble a low-power Broadcasting Transmitter that shows you how to put a station "on the air," a Wavemeter, etc. This and other equipment I send you, is yours to keep.

Keep your job while training at home. Hundreds I've trained are successful RADIO-TELEVISION TECHNICIANS Most had no previous experience; many no more than grammar school education. Learn Radio-Television principles from illustrated lessons. Get PRACTICAL EXPERIENCE—build valuable Electronic Multitester for conducting tests; also practice servicing Radios or operating Transmitters—experiment with circuits common to Radio and Television. At left is just part of the equipment my students build with many kits of parts I furnish. All equipment is yours to keep. Many students make $5, $10 a week extra fixing neighbors' Radios in spare time.

Mail Coupon For 2 Books FREE

Act Now! Send for my FREE DOUBLE OFFER. Coupon entitles you to actual lesson on Servicing; shows how you learn Radio-Television at home. You'll also receive my 64-page book, "How to Be a Success in Radio-Television." You'll read what my graduates are doing, earning; see photos of equipment you practice with at home. Send coupon in envelope or paste on postal.

J. E. SMITH, Pres., Dept. 2BQ, National Radio Institute, Washington 9, D. C. . . . Our 38th year.

Good for Both—FREE

Mr. J. E. SMITH, President, Dept. 2BQ
National Radio Institute, Washington 9, D.C.

Mail me Sample Lesson and 64-page Book about How to Win Success in Radio-Television. Both FREE. (No salesman will call. Please write plainly.)

Name _____ Age _____

Address _____

City _____ Zone _____ State _____

Approved Under G. I. Bill

WRITERS of fiction have always had stern competition from life, which has a way of being startling, fantastic and wonderful on its own. When World War II actually got under way, after the *sitzkrieg*, the speculations of writers were completely eclipsed by the stunning drama of events which outclassed all imaginings. Many a writer at that point was heard to remark that there was no sense in making up drama, for it simply could not compete with the newspaper headlines.

Up until now, science-fiction writers have been safe from this fate, being reasonably well ahead of life. But the lag is shortening and there is a tempo in the news stories which indicates (if you are alert at spotting a trend) that soon stf writers will also be in competition with the newspaper headlines.

Trip to Mars

Let us put in evidence three recent news stories.

From the *New York Times*: Dr. Wernher von Braun, once technical head of Germany's rocket research station at Peenemuende, now sparking the U. S. Army's rocket experiments, said that a trip to Mars is entirely within the realm of possibility in present times. He has already worked up fairly detailed plans for the trip, including the time it should take and the number of men needed.

Forty-six three-step rockets would be required. These rockets, dropping their exhausted fuel tanks as they speared upward, would carry the knocked-down parts of spaceships and necessary supplies out to a predetermined point in an orbit around the earth. Here ten spaceships would be assembled. This would require 950 flights.

The ten assembled space ships would now take off for Mars and fly to a predetermined point in an orbit around Mars. Seventy men would be required for the crews.

The spaceships would not attempt to land on Mars, but would launch three 200-ton rockets, carrying fifty men, for the actual landing.

Assuming they all got down safely, the men would make what survey and exploration they could, then return in two of the rockets, abandoning one and presumably using its vital fuel.

Again, assuming the two rockets made it back safely to the spaceships still orbiting around Mars, and made contact, the men would go aboard and abandon the rockets. Of the ten spaceships, three would be abandoned in the orbit of Mars and the seventy men would return to Earth's orbit in the remaining seven spaceships. From Earth's orbit they would make the landing on Earth via the original freight rockets.

The project is even figured out to time. After the rockets and ships are constructed in parts, it would take eight months to assemble all supplies at the launching site. The expedition would then take two years and 239 days. It would be expensive, Dr. Braun admits, but not so much compared with present military budgets.

Rocket Base

Item two, from the *Associated Press:* H. H. Koelle of Stuttgart, secretary of the German Space Research Society, said "it is an open secret" that Russia is racing the United States for a rocket base in space.

A satellite could be built in space, Mr. Koelle said, for about half a billion dollars. Such a gun emplacement, shooting guided missiles with atomic warheads, would obviously command the earth if it were owned by a single nation.

Item three, from *Science News Letter:* The first spaceships will probably look like flying saucers, according to Ernest G. Reuning, U. S. Army astronomer. The saucer shape is likely because of aerodynamic problems involving the forcing of a large body through layers of atmosphere on its way out or in. Space ships designed today are likely to use the ram-jet method of propulsion and for this, slot-shaped exhausts provide the greatest area of heating

(Continued on page 130)

WHAT SECRET POWER DID THIS MAN POSSESS?

Benjamin Franklin
(A Rosicrucian)

WHY was this man great? How does anyone—man or woman—achieve greatness? Is it not by mastery of the powers within ourselves?

Know the mysterious world within you! Attune yourself to the wisdom of the ages! Grasp the inner power of your mind! Learn the secrets of a full and peaceful life! Benjamin Franklin—like many other learned and great men and women—was a Rosicrucian. The Rosicrucians (NOT a religious organization) first came to America in 1694. Today, headquarters of the Rosicrucians send over seven million pieces of mail annually to all parts of the world.

The Rosicrucians
SAN JOSE • (AMORC) • CALIFORNIA

THIS BOOK FREE!

Write for YOUR FREE COPY of "The Mastery of Life"—TODAY. No obligation. No salesmen. A nonprofit organization. Address: Scribe C.S.V.

SEND THIS COUPON

Scribe **C.S.V.**
The ROSICRUCIANS (AMORC)
San Jose, California

Please send me the *free* book, *The Mastery of Life*, which explains how I may learn to use my faculties and powers of mind.

NAME_____

ADDRESS_____

CITY_____

ZONE_____ STATE_____

AND THEN THE GAMBLERS MET THEIR MATCH...

JIM READE, MASQUERADING AS A ROUGH-LOOKING SUPPLIER OF ILLEGAL GAME TO A SWANKY SUPPER CLUB, GETS THE BREAK HE HAS BEEN WAITING FOR...

AT LAST JIM LEARNS THE SECRET THAT HAS BAFFLED LAW ENFORCEMENT OFFICERS FOR MONTHS

LATER THAT NIGHT

AT HEADQUARTERS

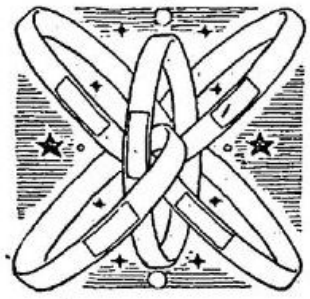
TEN-BLADE PACKAGE HAS COMPARTMENT FOR USED BLADES

Father of the Atom

The Story of Mendelyeev's Amazing Calendar of Elements

A hundred years ago hardly anyone included a discussion of atoms in polite social intercourse. Today practically everyone mentions atoms at least once a day, sometimes without more than the haziest notion of what atoms are or how they behave.

In school we learned that our familiar world is made up of elemental substances which have been wittily described as the "building blocks" of nature. Elements could be made to combine in certain fixed weights and this led to the suspicion that there were measurable units of each element, which the ancient Grecks had already anticipated and named "atoms." An atom was therefore the smallest piece of an element which retained all the characteristics of said element.



Atoms are small. There are supposed to be something like 1,700,000,000,000,000,000 hydrogen atoms to the ounce. But since nobody was interested in weighing them out by the ounce, a rough scale was devised for atomic weights, with hydrogen, the lightest, standing at 1 and oxygen 16. Having gotten this far, the scientists were stumped, being unable to figure out any sort of pattern or connection between atomic weights and the elements they made.

Into the picture came a pre-Stalin Russian scientist named Dmitri Ivanovitch Mendelyeev. 58 elements had been discovered and atomic weights were known or guessed for these. Shuffling them around, Mendelyeev suddenly realized that the atomic weights themselves might be responsible for the nature of matter. If the known elements were arranged in the order of their atomic weights there was a distinct cyclic pattern of change which occurred so regularly that the atomic weight of any given element logically seemed to place it within a certain group.

It all fell into place so well that Mendelyeev was able to set up a calendar of elements. And like a calendar which repeating itself each week, each row of seven elements fell under the next as recurring similar characteristics set it under its neighbor seven numbers back.

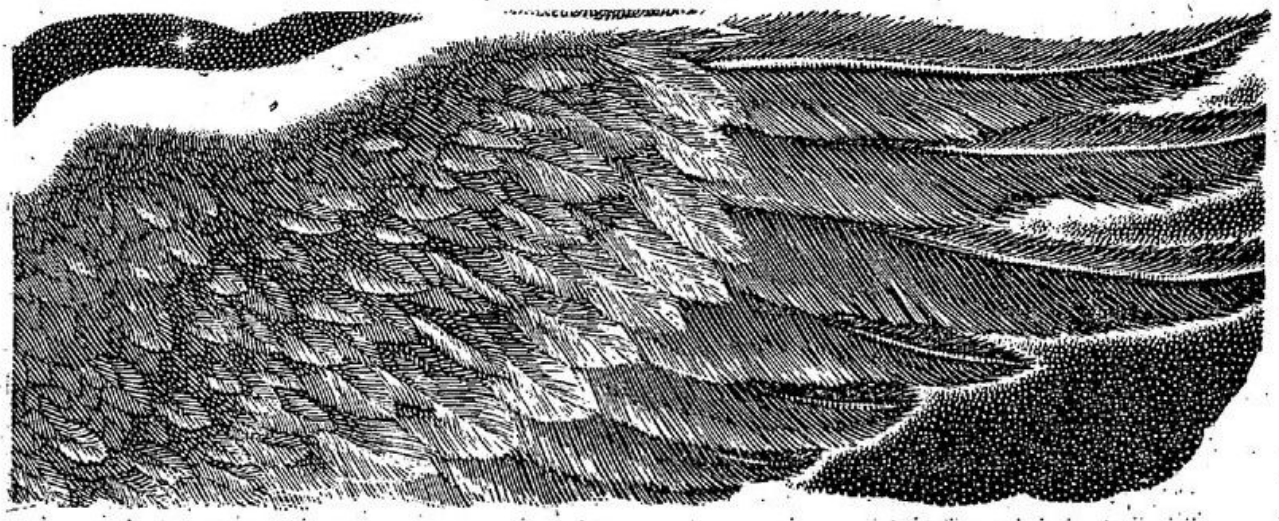
The only hitch were the empty spaces. There were gaps in the progression. With amazing courage Mendelyeev assumed there were still undiscovered elements which would fit into the empty spaces. He actually *predicted* the atomic weights, characteristics and behavior of the elements yet to be discovered.

He was called a lunatic. Maybe he was, but he was an inspired one. For the very scientists who were the most anxious to prove him wrong set out to show there were no unknown elements of his predicted atomic weights—and wound up by finding them. One by one the missing elements were discovered and fitted into the spot reserved for them on Mendelyeev's calendar of periodic weights. For example, he predicted an element with an atomic weight of 72 and a density of 5½. When the element was found its weight was established at 72½ and its density at 5½.

What had been a baffling, orderless maze now assumed order. All the apparently unrelated facts dropped into place and there appeared a coherent explanation of the nature of matter which implied not only order, but even a certain philosophy of nature. It is important for mankind that things be orderly, that effect follows cause. For without order man is a child lost in tumult and chaos which he cannot understand. And if there be order amongst the elements, it follows that there is order in all the forces which make up our physical world.

Mendelyeev's periodic table shows 92 elements and there are still a few empty spaces in it. So if you are interested in atoms, there's work to be done. But just remember, before you start counting them, how many zillions will go into a teaspoon.

The Weeping Doll lay on Fyon's pink sands. When Don Haig picked it up, the cosmic battle between Vulcan and Mulciber would begin!



VULCAN'S DOLLS

A Novel by MARGARET ST. CLAIR

I

DON felt that time on Fyon was a tangible element. It seemed to drip down lazily from the dark fronds of the palm trees, to lie in languid pools under the pink and yellow petals of the frangipani. The trades blew steadily day after day on Fyon, warm and fresh and sweet-scented; and the palm trees, leaning their long slim trunks against the wind, seemed to be resisting time blowing past them. The pink sands of the beach were as smooth as velvet. The gentle waves wrote on them ceaselessly, like time writing and left them covered with an elegant calligraphy of long, sinuous ripple marks.

The botanists who had installed Fyon's flora had spared no expense. Under the trees there were slender-podded vanilla orchids, hibiscus with long, poised stigmas and petals fantastically cut, double sampaguita flowers. There were ilangilang trees starred with drooping scented greenish blossoms, gardenias as high-centered as roses, champak, odorous kamuning. Sunset was brilliant over the palms, and so was morning, and each day was like the one before it, each round and unflawed and perfect as a pearl. It was no wonder that for weeks at a time Don was able to forget that Fyon was nothing but a synthetic pleas-

ure-filled planetoid.

Worse than that, it was an unsuccessful one. The designers of the planetoid, for all their pains, had somehow missed the taste of the public. There was, it seemed, too much water, too little diversion. Space liners touched there rarely. There were few visitors. The machines that kept Fyon going—the fall of rain, the motion of air, the waves rippling against the beach—ran only because keeping them going was cheaper than shutting them down would have been.

That morning Don Haig woke unwillingly. For a long time, in his light slumber, he had been conscious of the arthritic pains in his ankles and elbows, of the itching of the sand against his shoulders, of the nausea spreading miserably through his diaphragm and chest. Day was a question he did not want to have to answer. He moaned and burrowed and tried to go back to sleep again. But he was cold and shivering; even with the warm sand against him he was cold. He roused himself at last.

He sat up in the sand, dodging, with the ease of much practice, the slantwise piece of corrugated iron that served him as roof. He yawned and shivered and yawned again. A drink would have helped his nausea, but it had been so long since he had had the luxury of a drink on first waking that he hardly formed the wish for it. He blinked the gum from his aching, unfocused eyes until he could see a little. Then he crawled out.

THE day was well advanced. From the angle of the palm trees' shadows, it must be on the nearer side of noon. From an oleander a bird squawked shrilly. Don licked his lips and shivered nervously. He would have liked a palm tree to hold on to. He began to undress.

He laid his clothing—a sleeveless undershirt and frayed white duck trousers—on the sand near his shelter. As always, he was a little ashamed of his ill cared-for, too-thin body. It was another unwanted, unmet responsibility. He waded out into the surf slowly, feeling the milk-smooth water float some of his misery away, and hoped that it wouldn't make the pain in his joints worse.

When he came back from his bath he felt a little better. He picked up his clothing and, still naked, walked along the squeaking sand until he came to a particular spot on the beach. Then he turned and walked inward for perhaps fifty meters until he came to a fresh-water spring, one of the countless loving refinements the engineers who had built Fyon had installed. The water flowed out clear and cool under the trees, across a bed of spotted agate pebbles and sweet-scented ferns.

Don Haig drank copiously. He drank again. He scooped up handfuls of the sweet water and slapped it over himself, rinsing away the salt. He didn't want to get salt-water boils once more. He was still thirsty. Again he drank.

This time he vomited. He brought up nothing but clear fluid, but he was careful to move well away from the spring. When the spasm was over he was weak, but he really did feel better.

He walked toward the beach again. When the bland air had dried him, he dressed. He was surprised to find a tiny germ of hunger in himself. Food? Solid food? No, but perhaps coffee. And then, of course, a drink.

That wasn't going to be easy. He smoothed his rough brown hair back, frowning and trying to be intelligent. Fyon was outside the net of social services, and that meant that anything Don got on it had to be paid for with money. Who could he ask for money this morning? Kunitz?

Kunitz had yelled at him the last time he had asked, calling him a damned drunken nuisance. Don looked abstractedly at the lambda-shaped red birthmark on the inside of his left elbow, and laughed. It was accurate enough. Don was a nuisance even to himself.

After a moment he decided to walk along the beach and see if he could pick

something up. It had worked twice, out of all the times he had tried it. Once he had found a beautiful pink shell, very unusual, and sold it to a tourist. The other time it had been an expensive watch somebody had dropped.

He set off, dragging his feet. He passed an unobtrusive robot gardener, busy weeding among the hibiscus, and thought for a moment of dismantling it and trying to sell the pieces. It was impractical; they'd only jail him, give him more psychotherapy, tell him he was happy. And there wasn't any rum in jail.

HE WALKED a kilometer and a half up the long curving beach before he decided to go back. Would it have to be Kunitz, after all? Kunitz had liked him once. Don wished there was someone else to beg from beside him.

The long waves rolled in on the pink sands and were sucked back with a low roar. They broke with a prodigal display of foam, rich as pearls on the blue-green glinting of the water. Don watched for a second, divided between aesthetic appreciation and the categorically imperative need for a drink. Then he turned to take the path that led to Kunitz' house.

At the last moment he halted, frowning. Had he seen a speck, visible only between waves, at the water's edge? He sighed, and then went creakily down to see what it was. When he thought of that discovery afterwards, he was always to remember that he had forgotten to roll up his trousers' legs and had, in consequence, got them wet.

He had to wait for the wave to go back before he saw the object. Then he stooped and scrabbled with his fingers. What he had seen was round and small, and part of it was buried. The digging made his fingers hurt.

He pulled the object out of the sand with a sucking noise. He brushed wet sand from it with his shaky forefinger. It was—it was—

His knees were suddenly weak. He moved the few steps back to the beach and sat down. He brushed off more sand, and stared at the thing he held.

She was small, no higher than the length of his hand. She was made of some golden, faintly luminous material, the color of a Gloire de Dijon rose, and

Things Remembered

EVEN if you are beyond the susceptible age, it is hard to resist the appeal of a doll. You know it is only a bit of clay or plastic, molded, pinched and carved into human form, that it is empty and lifeless. Yet the illusion of life is so strong that it is no wonder dolls have played a part in religion, in sorcery, in voodoo, in ceremony, in pageant, and play—in almost every phase of man's existence. Years later, the teddy bears and dolls of our childhood can bring back memories, strong and clear.

And what if the shaping of this lifeless clay into human form did give it some strange sort of life or half-life? That possibility has intrigued mankind for centuries, and many fine stories have been written on the theme.

Here is such a story—one which ranks with anything you have ever read. VULCAN'S DOLLS is a work of rare beauty, a many-faceted, glittering gem, full of paradoxes and surprises. It is a delight to read, a privilege to present to you.

—The Editor

to his fingers she had the mingled coolness and warmth of living flesh. Don looked at her with an exhausted, incredulous delight. She was the most beautiful thing he had seen in his life.

A woman, tiny, naked, perfect. Perfect with the perfection not of nature but of art, for a woman's living body had no such harmony. No breathing woman ever had just that perfect slope of breast and cheek bone and hip. He held her in his hand, a marvel, a delight; and she was no bigger than the hand that held her. Her face was sad and compassionate. And down her cheeks there were flowing tiny, tiny tears.

Don hesitated. After all, he had just fetched her out of the water. The tears might be from the spray. Very carefully he pulled a fold of his undershirt forward and blotted at the wonderful little face with it. And when he took the cloth away, there were more tears.

He wiped his fingers on his trousers. With vast delicacy he touched his index finger to her cheek. He tasted it. Yes, there was salt on his finger. Salt, like tears.

He stared at her. She was a phoenix, a miracle. "You. . .you. . ." he said to the doll, and then fell silent. She was not something to be put into words.

Where had she come from? What was she? It didn't really matter. It seemed to Don Haig that until the moment he had plucked her out of the sand his life had been an unimportant dream, a boring fantasy. He had been cold, cold to the bone, dazed with cold, only half alive. Now he was warm.

He sat a little longer, holding her, marveling at her. Then he got to his feet. He would take her to Kunitz.

II

KUNITZ lived in a house. It had only one room, but that put him, of itself, at once in a higher social class than Don, who merely lived in a shelter scooped indifferently out of the sand.

He was more respectable than Don, too, in other ways. He drank, but not constantly, and when he did drink he drank phlomis, not rum. He had a little money. He could read. Don had heard the bartender in Baade, the little settlement, speak respectfully more than once of that accomplishment of Kunitz'. (The bartender, like a good many other people, cou'd only scan isotypes.) Don had told the bartender once that he himself knew how to read, but by then he had been very much down on his luck, and the bartender hadn't believed him.

It must be nearly noon. The shadows of the duku trees were at their smallest extent. Kunitz would surely be up.

Don rapped on the door, lightly at first, and then harder. No answer. He knocked again. Silence. He began to swing his arms and bang.

At the fourth bang Kunitz stuck his head out of the paneless, bamboo-framed window. He looked irate. "What the hell. . . Oh, it's Don. I told you I wouldn't loan you any more money. Go away."

"I don't want any money," Don answered. The statement in itself was astonishing. "Look here, Kunitz. I want to talk to you. I've—got something you might like to see."

Kunitz looked at him speculatively. He rubbed the grayish stubble on his upper lip and bumbled. "All right," he said resignedly. "Mind, it won't work if it's a touch. I won't give you a loan."

"Shut up about the loan. I know."

Kunitz came to the door. He was wearing faded blue trousers, slippers, and no shirt. Ten or fifteen years older than Don, he had a vigorous, stocky body that was beginning to slip into fat. Now he looked sleepy and annoyed.

"Knock the sand off your pants, can't you?" he snapped at Don as the younger man started over the threshold. "I don't like sand all over my floors."

Obediently Don bent and cleaned himself. He was very careful to avoid putting any strain on the doll. He had slipped her into his pocket.

"Lumbago, Don?" Kunitz asked in a slightly more friendly tone. "Or is it

souse's arthritis again?"

"Neither," Don answered, unresenting.

"Well, sit down." They had passed into the house's cool, shadowy interior. "What is it, anyway?"

Don seated himself in one of the high-backed rattan armchairs. It was hard for him to begin. A more than physical modesty restrained him. It seemed to him that he could feel the doll inside his pocket, and that she was slightly warm. He cleared his throat once, twice. Kunitz looked at him keenly.

"Go on," he said.

"I—well, I—"

"Oh, I'll get us a drink. Will phlomis be all right? That's all I have left. You drink phlomis, don't you, Don?"

"Sure. Anything."

Kunitz got the glasses and heavy, inlaid phlomis bottle from a bamboo-faced cabinet. His disordered bed was on the right. He sat down on it and raised his glass to Don. "Da skrie," he said loudly. It was an old Martian toast.

"Da skrie," Don aswered. He sipped at his drink. It was, as phlomis always was, too sweet. He could feel it curdling and looping oilily in his empty stomach from his throat.

"What is it?" Kunitz demanded once more. He was growing angry again.

Don hesitated. It was now or never. Overcoming an intense reluctance, he pulled the doll out of his pocket. He set her down carefully on the table in front of Kunitz.

KUNITZ' deep-set eyes widened. Don thought he turned a little pale. After a perceptible silence he said, "Don. Do you know what you've got?"

"I'm. . . . I'm not quite sure."

"Do you know how valuable it is?"

"I suppose it would be."

"Where did you find it? You didn't steal it, I suppose."

"No. She was half-buried in the sand down on the beach."

"On the beach!" Kunitz lifted his graying eyebrows. "In the sand! You

The sphinx was watching him steadily with her polished nephrite eyes

found her, just like that? One of Vulcan's weeping dolls?"

"I found her. I wasn't sure she was one of the dolls. I used to hear about them when I was fifteen or so. I don't remember it very well. I thought it was just a story."

Kunitz grunted. "No. You can see that it's not. There's a doll like that—it could almost be a twin of the one you. . . found—in the museum in New York. They only put the thing on display every four or five years. Just often enough so that people can't say there's any censorship. They don't like to show the doll oftener because it unsettles people. 'Unsettles', you know, covers almost anything these days."

"And the doll is valuable?" Don asked. It seemed to him that this point was the least important aspect of his discovery, but he was reluctant, with the same deep reluctance he had felt toward showing Kunitz the doll in the first place, to discuss what he felt did matter.

"Oh, God. Yes. The one in the New York museum is the only one—let's be conservative, we haven't got the deep space drive yet—the only one this side of Aldebaran. There probably aren't any more dolls anywhere. As far as that goes, no one had ever really supposed there might be two of them, for all the proverbs and stories."

Don finished his phlomis. He set the sticky glass down on the table. "What stories?" he asked.

"Oh, the Martians say, 'crying as much as one of Vulcan's weeping dolls,' and, 'As hard up for brains as Vulcan's weeping dolls are for dry cheeks.' And then there are the stories."

"Tell me one of the stories," Don asked. For some reason—it couldn't be the phlomis—he felt a little light-headed. "Who is Vulcan, anyway?"

"Vulcan himself? He's a craftsman, an artificer. He lives on an artificial metal planetoid at the end of our galaxy. They say"—Kunitz smiled faintly—"that he's always attended by two brass hounds of his own making, two animals which have keener senses than any real ones ever had, and that the light in his workshop is furnished by beautiful figures of women who move about without being ordered to cast light where he needs it in his work. The illumination, you see, comes from the end of their translucent arms. Vulcan is immortal—"

"Is he a god?" Don interrupted.

"No-o-o-o, I don't think so." Kunitz picked up the phlomis bottle and poured more liquid in the glasses. "He can do miraculous things, but except for his long life he isn't miraculous himself. He spends his days making objects of incredible workmanship. Things, I mean, on the borderline between the animate and the inanimate, like the little lady you found in the sand. The Martians call him 'Master of life and Half-life.' Oh, yes, and they have another proverb I forgot to mention: 'When the dolls stop weeping, the world will change.'"

"Um. Do you think the stories are true, Kunitz?"

THE OLDER MAN shrugged. "How should I know? They certainly don't sound very . . . probable. On the other hand, I've seen things once or twice that I simply couldn't believe ordinary human hands created. Miracles. And then there's the testimony of what you found in the sand this morning, the weeping doll."

Don had scarcely taken his eyes off the figure while they had been talking. Now he picked it up very carefully between thumb and forefinger and balanced it in the palm of his hand. "Kunitz, what do you think makes her weep?"

"You mean what mechanism—? Oh, I see. *Why* is she weeping. Well, it's a silly idea—" Kunitz chuckled rather self-consciously——"but when I look at her I feel that she's weeping for all the miserable things, even the things that I've forgotten, that have ever happened to me. Pretty egotistical, I guess. She makes me feel troubled, and comforted, at the same time. I told you the doll in New York was said to have an 'unset-

tling' effect. Here, let me handle her."

Rather unwillingly, Don permitted Kunitz to take the doll from his palm. The older man examined the figure carefully. He said, "You know, I don't think she's complete."

"What do you mean? I never saw anything more perfect."

"Yes, of course—but look here, on the back of her shoulders." He pointed. "See those rough places? It looks as if something had been cut away there, or never added. The rough spots go clear down the shoulder blades to just above the loins. Do you see them, Don?"

"Yes." Haig gulped phlomis. "I think—"

"What? Go on."

"It's just an idea. But I think maybe she used to have wings."

"Wings!" Kunitz looked surprised, and then pleased. "Yes, I suppose that would fit the marks. H'um. I'd almost swear you were right."

There was a silence. Don Haig finished his drink. Kunitz looked up at the ceiling and down at the floor. He cleared his throat. He said, not very loudly, "I believe *I* used to have wings."

DON looked at him. The older man seemed quite serious, and almost perfectly sober. "Rudimentary wings, you know. They couldn't have been good for anything."

"That's interesting."

"Yes, I suppose so. Look here, Don, what are you going to do with the doll?"

"Sell her, I guess." Even as he said this, Don was not sure that it was true. "She ought to be worth a lot, from what you say. I could have all I wanted to drink for the rest of my life."

"And you think that would make you happy?"

"As happy as anything would, I guess."

Once more, a silence. Don was feeling a trifle nauseated. Phlomis, with its disgusting sweetness, had never agreed with him. "It's none of my business, Don," Kunitz said, "but why don't you have the synthetic childhood? It might, unh, fix you up."

"Oh, I've had it. Didn't you know? It was a waste of time and energy. I just couldn't believe in it. The psychotherapist kept hissing at me, 'You are counter-suggesting to yourself!' and then we'd get into an argument. It was all too unreal."

"Um. Too synthetic. I've heard other people say that. Sometimes I think everything in our world is synthetic, even happiness. But did you have such a bad actual childhood, Don?"

"I don't know. I mean, I can't remember. That was one of the things the psychotherapist used to get annoyed with me for. He said I was deliberately erecting a mental block, and he'd lecture me by the hour about cooperation. But I honestly couldn't remember. Believe it or not, my earliest clear memory doesn't go back beyond the time I was fourteen. Before that, there's something about being in a big room. But that's just an impression, not a memory."

Kunitz whistled. "That's awfully unusual."

"I know it is. Up to the time I was fourteen, I was in an institution. At least, that's what the records show. You couldn't prove it by me."

"I've something the same difficulty," Kunitz said after a moment. "I can't remember my childhood clearly either."

"Was it so painful you've forgotten it?"

"Painful? No, not at all. But almost all my childhood, anyhow from the time I was three onward, was passed in the haze of the Martian pyrexia."

"The—? H'um, yes, I've heard of it. It was a disease. But it was before my time."

"It would have been. But, Haig, you can't imagine what a time it was." Kunitz chuckled softly, as if he were remembering something disreputable and agreeable.

"The pyrexia was like being a little drunk all the time. It was a disease, of course, but in its mild form it was so

gentle and agreeable that more than ninety percent of the population of Terra contracted it before they realized they had contracted anything. Then some of the cases passed into the severe form, and people began dying. That wasn't so nice; in the serious form there's pain, delirium, and a most alarming red body flush. But even then nobody got much excited. The pyrexia blurred the edges and softened everything.

"Life was so relaxed in those days! Nobody worried. There were hardly any accidents, despite the gently alcoholic atmosphere, because people were too relaxed to hurry about anything. It was—it was a very strange time, especially in contrast with today.

"I'll give you an example of the kind of thing people did. Some jokester introduced a motion in the world council for what he called 'double daylight wasting time', and it was passed to the accompaniment of delighted and hilarious laughter. For two blessed years the entire population of Terra rose and went to bed two hours late. It was wonderful."

DON laughed. "I'd have liked that."

"Yes, it was fun. If the disease hadn't always been liable to pass into its severe form, it would have been nice for us to keep on being feverish forever. But that's why I can't be sure I really had wings—there's that soft, pleasant haze."

"You think you dreamed it?" Don said. He looked at his empty glass rather wistfully. Phlomis was terrible, of course, but it was quite a bit better than nothing at all.

"I may have. I'll tell you about it, Haig. (I haven't talked about this in years—your little lady must be 'unsettling' me.)

"As far as I remember, my wings started to sprout when I was five. At first they were just big, flaccid lumps on my shoulder blades. Mother looked at them. She wasn't worried, but finally she took me to a group doctor. I do honestly think I remember this.

"I don't know what he said, if he said anything. I have a mental picture of being in the doctor's waiting room, watching a puppet show, and then there's a blank. He must have told mother that I was growing wings, though, because after that I knew what was happening to me.

"I have a hazy recollection of bragging to the other children about how I was going to have wings, real big wings, when I grew up. I don't remember what they thought of it. Then a new little girl moved in next door.

"Her name was Loris; I'm almost certain I remember that too. She was a pretty, rather prim little girl, half Martian, with the wonderful deep turquoise Martian eyes. I was very much taken with her.

"We played together all that winter... You understand, Haig, this stuff isn't continuous; I'll have one or two vivid mental pictures, and then there'll be a lot of haziness, or maybe even complete blanks. But I think we played together all that winter. Happy Beavers, mainly, and free-flight swings, I think. Then one day it was getting to be really spring.

"Loris came out in a little gold sun tunic, and I was wearing G.S. breeks. She saw the lumps on my back. She must have asked about them, and I must have told her how they were going to be wings. Anyhow, I have an almost abnormally vivid picture of her saying, with her pretty little pink mouth all puckered up, "That's just cha-drze. What foolishness! You won't have real wings. It isn't reasonable.' You know how Martians always talk about reasonableness."

"What does 'cha-drze' mean?" Haig interrupted.

"It's Martian for 'fairy stuff.' Anyhow, after that I had an operation on my wings."

"You mean an amputation? You mean you had the operation because she didn't believe you?"

"Yes, an amputation. Whether the reason was that Loris was so doubtful—" Kunitz shrugged. "I've always

thought that that was the reason. Her disbelief must have hurt my feelings deeply. If I went and asked my mother, and she told me that Loris was right, I wouldn't ever have wings that would work. . . I'd certainly have wanted to get rid of the lumps. I'd have considered them a deformity. But of course my parents may have had the operation scheduled anyhow, to save me from something that was certainly abnormal. I don't know.

"As far as that goes, I can't be sure I ever had an operation. Maybe I never had lumps on my shoulders at all, maybe there never was a Loris. Perhaps the whole thing was only a vivid fantasy."

III

THE room had been growing darker. Now rain began to drum down upon the roof. It was Fyon's regular early afternoon shower. Kunitz got up and closed the shutters on the windows.

"There must be some way of checking up," Don said, raising his voice to be heard over the sound of the rain. "I mean, if it's really important to you to know. The hospital records would show whether or not you had an operation, for one thing."

Kunitz groped his way back to his seat. With the shutters closed the room was almost dark. In the faint light the doll on the table seemed to have an unearthly shimmer, not so much as if she were self-luminous, but as if she caught up the light in herself, like porcelain.

"I thought of that," Kunitz said. "Unfortunately, there was a fire in the local hospital, and the records for those years were destroyed. I can't ask my parents; they both died with the pyrexia. I haven't any scars on my shoulders, but I don't think that proves anything. With modern surgery. . . ."

"Do you think you could have had a fantasy that vivid?" Don queried rather idly.

"That's the trouble. I think I could. One of the ways the pyrexia affected me was to make my fantasies extremely vivid. For instance, I could tell you a long, connected story about what happened when I was a dragon. I used to fly around over a valley—the wing motif again, you see; as a dragon I had big, scaly wings—and pick up people and take them home to my castle. I never ate them. They were farmers. I think they would have been unpleasantly tough."

"Um. But that's obviously nothing but a fantasy."

"Yes, but I had domestic ones, too. Once I shot my father with a popgun. Killed him dead. There was blood all over him. I went in the house and told mother, 'I just killed daddy.' She said, 'Did you, dear? Then we'll get married when you grow up.'"

"Charming little Oedipus!" Don said, laughing. "How frank! But your wing fantasy does seem in a different category from that."

"'M, yes. All the same, I'd have dismissed it as just a fantasy, if it hadn't been for what happened when I grew up."

KUNITZ cleared his throat; he was plainly preparing to embark on narration. Don shifted in his chair. Why was Kunitz telling him all this? Up until now, Kunitz had been definitely close-mouthed about himself. Was his present burst of communication nothing more than the result of the doll's unsettling effect? Or did Kunitz have some obscure ulterior motive? If so, what?

"You've got to understand what it was like when we got over the pyrexia," Kunitz said. "The moral and intellectual climate changed. After we had the serum injections—"

"Didn't the SSP have something to do with that?" Don interrupted.

"Yes, it did. Nowadays people have almost forgotten what SSP originally meant. The initials stand for Special Serum Purveyance; and the SSP did, almost single-handed, defeat the plague. Whatever you think about the SSP today, you have to give it credit for that.

"They developed the serum—the handful of scientists who either didn't get the plague, or managed to keep on working in spite of it—and they administered it to the rest of us, despite our indifference and dislike. Maybe, considering how things have turned out, it would have been better for us to keep on being sick. I don't know.

"But as I was saying, there was a remarkable change in the intellectual climate. After the laissez-faire years, there came an era of intense respectability. People's backbones seemed to stiffen, and not only in a moral sense. That, by the way, is how the SSP managed to grow so powerful—by taking advantage of the new hunger for the rigid and the orthodox.

"I was put in an institution and then adopted. My father and mother seemed far away, lost in the soft pyrexia haze. Even my grief for them was unreal. I tried to adapt myself to the new world.

"When I was twenty-two, I married. Her name was Thecla—I used to call her Ted—and she looked a little like Loris. We both worked in the Chlorella sun-energy plant.

"I told her about my wing-fantasy before we were married. She said it was just a fantasy; she didn't pay any attention to it. Thecla was intelligent, but she had little imagination. The strongest trait in her character was her longing to be respectable, to be perfectly, entirely, orthodox.

"We had a child in our second year of marriage. It was a little girl, a beauty. We were both crazy about her."

THE rain was coming down more slowly now. In half an hour it would be over. Kunitz poured the last of the phlomis into the glasses and chucked the empty bottle into the corner. It landed with a thump.

"We named the baby Bettina, but we always called her Bets. For two years Thecla and I were happy. Then Bets started to grow wings.

"They weren't like mine had been, mere lumps. As soon as they started to appear, it was clear they were going to be usable. And they grew fast. It was just unbelievable how fast. We didn't have time to be alarmed over Bets' getting some kind of growth before we were confronted with a new fact, a child of ours who had wings.

"Ted was bowled over. It was something she just couldn't adjust to. Looking back on it, I can see she was having a serious and painful emotional conflict. At the time I didn't appreciate it. But Thecla was torn between one of the precepts of orthodoxy—that a mother always loves her child—and the very unorthodox fact that she was the mother of a sort of freak, a child who could fly.

"She wanted to have the wings amputated. She pointed out that they'd make Bets' emotional and social development difficult. The other children would make fun of her. It was abnormal. And so on.

"I wouldn't consent to the operation. Of course I was wrong, but how was I to know? The wings were pretty, pretty as could be. And then—after my own wings were cut off and I was in the institution—I'd had such vivid dreams of flying. Bets had a wonderful gift, an extraordinary power. Why should she be deprived of it?

"For a while Thecla and I quarreled about it almost constantly. Then my wife seemed to work the situation out for herself. *She* said it was because she was using one of those little 'communion with the Infinite' mirrors which were just coming into popularity then. But I think it was because Thecla had decided that the situation with Bets came under the heading, 'A mother will make any sacrifice for her child.' That's a thoroughly orthodox idea.

"But Thecla insisted that we keep the wings a secret. Bets had to keep them strapped down under her dress, and she wasn't allowed to fly except when we were out between the green strips, in the country. Even then Ted was always nervous. It wasn't too bad, though. We got along.

"Then the SSP started its mutation study program—you know, Program X. All this time the SSP had been growing more powerful. There'd been a good deal of talk. But it wasn't until Program X was announced that we realized that we had a new government.

"Mutants were ordered to register. Then what seemed like a random sampling of the registrants was picked up and taken into custody. Only a few at first, and then wider and wider 'samples.' We were told a date—it kept being advanced into the future—when the mutants would be released again. But none of them ever was.

"Ted and I were getting scared. Something might have leaked about Bets; and even if nothing had, her wings made a perceptible hump under her dress. There were plenty of informers, and there was always a chance somebody would sus-

They were standing in a brightly lit place filled with images of themselves

pect Bets was a mutant and turn us in.

"We kept talking about it to each other, trying to persuade ourselves that we didn't need to be scared. Then two SSP men in their dark-blue uniforms came into the Chlorella plant where we were working. They picked up one of the men in the drying section—his name was Thorsen—and took him away with them. His mutation was that he had six fingers on one hand.

"His arrest brought it home to us, somehow. We decided it was time we ran."

"I—was it very bad?" Don asked. He had heard stories like this before, but they had not seemed so real and close as Kunitz' did. The rain was almost over. His leg had gone to sleep.

KUNITZ sighed. "Not so bad then as later. But bad enough. The next two years were running and hiding. We couldn't stay in one place long enough to work steadily, and we didn't dare apply for any of the specialized social services. We were always poor. And we missed our regular work.

"Our hopes centered on getting a visa for Mars. The SSP hadn't much strength there. We thought that if we could only leave Terra we'd be safe. We waited for the visa for months, hoping—we got sick of hoping. Finally it came through. And then, the day before we were jetting, we learned that the SSP was checking everybody for 'mutationism' at the exit ports.

"That pricked the Martian bubble. I remember how Thecla and I stood staring at each other while some idiot was giving the direct suggestion cast over the tri-di. He kept blathering away about happiness—we were happy, he was happy, it was expected that everybody would be happy. Thecla said, 'He isn't the parent of a mutant child.'"

Kunitz rose and opened the shutters. The rain-fresh, fragrant air of Fyon came in. Don blinked in the sudden light.

"What finally happened?" he asked.

"What could happen?" Kunitz answered bitterly. "They got her. They started checking the poorer residential areas block by block. Thecla got an anti-grav from somewhere and put Bets in a trunk. She hoped the anti-grav would make the trunk so light no one would suspect there was a child in it. But she gave the wrong answer to a robot. They opened the case and took Bets. They didn't do anything to us, for some reason. I suppose Program X was all they could handle at one time.

"Thecla's slip with the robot was unintentional. I know it was. But she kept accusing herself and crying. Once when she was crying hardest she said it was my fault, because I hadn't permitted the wings to be amputated. I guess that was true, but perhaps it wasn't. The hospital records would have shown that Bets had been a mutant. The SSP might have picked her up any way.

"They gave us a receipt for her, but she never came back. I used to stand outside the stockade where they kept the mutants, hoping. They had guards with blasters all around it. I couldn't have saved her. But I wish I'd tried it, anyway."

KUNITZ cleared his throat. "I wonder what she'd have looked like," he said painfully. "If they'd let her grow up, I mean. I think she'd have been beautiful. Her wings were a rich deep gold—I don't mean light brown, I mean deep gold, you know. Her skin was a shade lighter, and she had brown eyes with green-gold flecks. Grown-up and flying—she'd have looked like some great golden bird.

"Well." Once more Kunitz cleared his throat. "Let's get back to your discovery, Don. You've found one of Vulcan's weeping dolls. What are you going to do with it?"

"I haven't decided. I don't know."

"Get rid of it, Don. She's dangerous."

"What makes you say that? She's so beautiful."

"Yes, but she's dangerous. Too valuable, too strange—and maybe too unset-

tling—for an ordinary person to have. She's like having wings. You ought to get rid of her."

Don made no answer. After a moment Kunitz laughed. It was an odd sound. "Don't be stubborn, Don. There's a strain of—what shall I call it—weak stubbornness in you. It comes out in the way you drink. But get rid of the doll."

Don's lips compressed. He picked up the doll and looked at her. Tiny, marvelous tears were still flowing down her cheeks. Sell her? What business was it of Kunitz'? He'd be damned if he would.

"Have you got something, an empty bottle, I could put her in?" he asked. "She's so tiny and frail looking. I'm afraid she'll get hurt."

"I could find a bottle," Kunitz answered. "But really, Don, you needn't worry about her in that way. I know she looks fragile, but Vulcan's creations are remarkably durable. I doubt there's anything you or anyone else could think of to do to her that would possibly damage her."

"Thank you," Haig answered. He put the doll in his pocket carefully. He started toward the door, Kunitz following him.

"Are you going to sell her, Don?" Kunitz asked with a touch of anxiety as they passed the threshold.

Don looked about him. Every blade of grass, every colored flower petal, was sparkling with round drops of rain. The air was clear as crystal, smelling of damp earth. A bird was beginning to sing somewhere to the right, three trembling throaty notes and then a pause. And, though the rain was so recently over, the path was dry.

Sell the doll? He would almost rather have parted with his eyes. But how could he make that clear to Kunitz?

"Oh, I don't know," he said carelessly. "I guess I'll keep her for a while."

He heard Kunitz draw his breath in sharply. For a moment the older man stood motionless. Then he went back into the house and closed the door. Don thought there was a smile on his face.

IV

AFTER Don left Kunitz on that first day, he went down to the beach. He sat for hours in the pink sand, and the thoughts moved slowly within his mind like clouds drifting over the sky. It was enough just to look at her.

On the second day he woke earlier, and was hungry. He wanted something solid, not just coffee. He ran over expedients mentally. Then he went to a little restaurant in Baade that specialized in fried dakdak pods, and offered to pit and stem the pods in return for two meals daily. The proprietor was skeptical—Don had a certain local notoriety—but he had no robot, and preparing the pods to be fried was a nasty, splintery job. He chewed his lips. He made an agreement with Don.

On the third day the restaurant owner offered Don a drink—rum and coconut milk—and Don refused it.

He refused it. It was not until he was on his way back to his sand shelter that night that the significance of his refusal penetrated to him. He had had a chance at a free drink, a drink he liked; and he had turned it down. What was the matter with him?

He got the doll out and looked at it. Except for star-shine, the night was quite dark. An artificial moon had certainly been among the refinements intended by the designers of Fyon, but when it had become plain that the planetoid was not going to pay for itself the idea had been abandoned. Those white tropic nights had never materialized. None the less, the doll had a faint, ethereal shimmer in the light from the stars. Don could see her well enough.

"Are you trying to reform me?" he said to her after a silence. "You beauty—you always crying little beauty—are you trying to change me? I won't have it, though you're so lovely. Leave Don alone, my darling. I resent it. I might have to get rid of you. Do you understand me, little weeping one?" His tone was only half-humorous.

He did resent it. He was no good, a bum, disgusting even to himself; but he didn't want to be changed. He wanted to be himself. It might be only coincidence that he had hunted for, and got, a job—his first job in how many years? —since he had found the doll; but he rather thought not. In her unique and peculiar way, she was "unsettling" him.

Of course he could get rid of the doll. She was valuable. He hadn't needed Kunitz to tell him that. He could sell her; there was no reason why he shouldn't. When the next space liner touched at Fyon—there was one due in a couple of days—he'd talk to the passengers. The passengers on system cruises were almost always wealthy people. He might be able to make a useful contact, anyhow.

Standing under the palm tree in the starlight, holding the doll in his hand, he began to prepare phrases to be used in his opening speech to likely-looking prospects. He'd do it. It was the sensible thing. Kunitz was right. He'd get rid of her.

As he drifted toward sleep that night in his sand shelter, he insisted to himself again and again on his determination—his unswervable determination—to get rid of the doll.

THE space liner touched at Fyon about eleven o'clock in the morning, on the day that passed as Wednesday. Strictly speaking, the liner did not "touch": Fyon had no spaceport. Land space was somewhat limited on the planetoid, and besides, its designers had considered that a spaceport would break the mood the planetoid was meant to create. Ships therefore hovered outside Fyon's atmosphere, and passengers and supplies were ferried to the surface in small craft.

The bar, in anticipation of the liner's arrival, had been decorated with fresh flowers, mainly hibiscus, ilangilang, and jasmine. (There were two bars in Baade, but only one had social standing enough to need to make special preparations for the space liner.) The girl at the curio counter in the bar building had brought out her choicest items. When Don stuck his nose in the door, about eleven-thirty, the bar was jammed with gabbling tourists downing rum-based "tropical" drinks, and the air was heavy with the blood-like smell of jasmine.

The tourists were mainly terrestrials. They were of all colors and all backgrounds, but they had this in common, that they nearly all belonged to a high economic level. Don ran his eyes over their ranks, trying to decide which ones looked possible and which would merely tell him to go away. His heart was beating rather fast.

He had taken special pains to look presentable. His ducks were freshly washed, he had shaved, he had even combed his hair. Payne, the owner of the restaurant where he was working, had loaned him a shirt. But when he regarded the easy affluence of the roomful of tourists, he became uneasily aware that he'd forgotten to borrow any shoes. Oh, well. They might think his being barefooted was picturesque.

The women, as usual, were spending more money than the men, but he didn't want to approach a woman. Don licked his lips speculatively and tried to assess the men in an impartial manner. He hoped that Henry, who ran the bar, wouldn't see him and throw him out.

Don settled at last on a group of three men at the left of the bar. All of them were conspicuously well dressed, and one of them, a shortish, pudgy man, was wearing a full set of miragems, including tie stay and wristlet. He was complaining about the poor service and the flavor of the drinks, which Don thought a good sign.

Don went outside to wait. He didn't want to tackle the men while they were drinking; Henry *would* throw him out if he tried that. He sat down on the ground near an ilang-ilang and waited, picking dakdak splinters out of his hands.

Women came out in twos and threes, waving curios at each other and laugh-

ing. Why were tourist women always so unattractive? Their figures were good, their faces well cared-for, and yet it added up to soup. Some of the men were carrying the bulky, if weightless, paraphernalia of "re-creative" films; Don had been a rek-film fan once himself. There was no doubt that the passengers from the liner represented a good deal of wealth.

One of the men in Don's group of three came out of the bar building, and Don let him go. More women, two with green hair erected into high plates and dotted with miniature china beetles. It must be a new fashion. It was hideous. And then, alone, the man with the miragems, the pudgy man.

SEEN close to, the man was not alarming. He was plump, not fat, in the same way that a child is plump, and he had a round, compliant-looking double chin. His hair and eyes were dark, and though his tunic and breeks were impeccably tailored, he did not seem smothered in them. He looked, in short, like a grown-up version of a rather spoiled, not unamiable child.

Don got to his feet and went up to him, clearing his throat. He was horribly aware of the dust on his bare feet, of the uncouth length of his brown hair. He said, "would you be interested in a rare art object, sir?" He had to push the "sir" out; it seemed to stick in his throat.

The man with the miragems looked at him testily. He waved his hand; the deep purple gems gave out a dazzle of apricot light. "Go away, go away," he said impatiently. "Do I seem like that sort of man?"

Don felt a gush of relief whose intensity surprised him. He'd tried it; now he was excused. He wouldn't have to sell her, his little beauty, his private miracle. He could keep the doll.

But the pudgy man was still talking: ". . . always pick on me. Do I look like an amateur of pornography? It's an insult. Try someone else."

Oh. Then he wasn't excused. Don said, "I'm sorry, Sir. I'm not selling tactifilms, or anything like that. It's a real art object. Very . . . beautiful, sir."

The man looked at him severely, and then laughed. "Excuse me. Not tactifilms. We're a very moral people these days, but on some of the pleasure planetoids . . . I don't mind so much when they tout for women, but boys . . . Well. So what you have isn't like that?" He was smiling.

"No, sir. I—the—the thing would be suitable only for a serious collector. It's extremely rare, and valuable. Only a really wealthy man could buy it."

"And *you're* selling it?" The tone was mocking.

Don flushed. The man was laughing at him. "Yes," he replied stiffly. "Or rather, I'm an agent for it. Are you an art collector? Sir."

"Oh, I'm not, I'm not." This with a wave of the hand, so that the miragems flashed wildly again. "But I have a friend who is. A great collector, putting it mildly. Perhaps he'd be interested."

"I—mm—"

"It isn't exactly art objects he collects, though," Don's interlocutor went on. He seemed to be enjoying himself; at any rate, he was smiling. "He goes in more for rare and valuable things, odd curiosities. His collection is almost complete. I doubt if . . . Well, what you got? One of the eating eggs? I imagine that's about the only thing he hasn't got that he'd be interested in."

Don quivered. He felt as if he stepped abruptly into a deep, cold stream. He knew what the eating eggs were; he had seen one once. They were hair-thin objects which swelled, when soaked in water, into pinkish eggs. In the egg state, they ate matter omnivorously. But what the eggs did was not, at present, relevant; what mattered was their provenance. The eggs were one of the things which were popularly believed to come from Vulcan's workshop. Vulcan! Of course, it might be nothing but a coincidence.

"You look a bit startled," the pudgy

man said solicitously. "I assure you his collection is valuable. And he's a wealthy man, yes, indeed. He's . . . of a somewhat elevated position in the Corona cult." The plump hands moved before the chest in an intricate sign.

Don said nothing. After a second, the plump man laughed. "It appears you're not an initiate, whatever else you are. Well, let me see your, h'm, art object. If I think he'd be interested, I'll tell him when I get back."

Don wanted to say, "I haven't got it with me." He refrained. If selling the doll had been a sort of game he was playing with himself, he could not stop merely because he might lose the game. And besides, there were all sorts of advantages to getting rid of her. Urgent reasons. If he could not recall, at this moment, precisely what they were, it was only because he was nervous and rushed.

"All right," he said to the tourist. He felt a sort of surprise at hearing himself speak. "I'll show you."

HIS hand moved to his pocket. His fingers fastened around the doll. The tourist was watching him interestedly.

"Go on," the man said after a second. "Why the delay? What are you waiting for?"

Don's fingers had fallen away from the doll. He blinked and shook his head. It seemed to him that he had walked with bound eyes to the very edge of a deadly cliff. Sell the doll? Oh, what could he have been thinking of?

To part with her was as base as selling a beloved mistress would have been. She was beautiful. She had come to him unsought, as if some wonderful golden bird had flown of its own accord into his negligent hand. She was a blessing, a wonder. Part with her? Betray her? He couldn't. Perhaps he never would be able to. He was ashamed that he had thought of it.

"I made a mistake," he said to the tourist. "I'm sorry. I haven't anything for sale."

He turned to go . . . If she was unsettling him, it was nothing but her prerogative.

The tourist's face grew red. "Oh, come now! You can't do this! After the build-up you've given me . . . Or are you merely playing coy? I want to see your art object, whatever it is. If it's something valuable, I might buy it myself." He was pouting, but his eyes had an angry look.

"I'm sorry," Don repeated helplessly. "It was a mistake."

"Oh, yes? You won't get any more out of me by resorting to this tactic, young man. I'm going to see it, whatever it is!" Before Don could realize what he meant to do, the pudgy hand darted toward Don's pocket—.

And then the man with the miragems screamed. It was a high, short note. Heads turned toward him. People craned their necks to look.

The tourist was holding one hand at the wrist with the other and shaking it, while he cursed in a shrill voice. His face had gone white. Don stared at him in amazement.

"You tried to disable me," the man with the miragems gasped, becoming articulate. Tears were running down his cheeks. In Don's dazed condition, it did not occur to him that they were tears of pain. "You almost burned my hand off! You *bdeleron!* You tricked me. I'll see that you pay for this!"

"I—I don't understand what you're talking about."

"Oh, don't you?" the plump tourist snarled. "There's a high-vi force field around you, you grapster. And you deliberately led me to contact it."

Don looked around him. People were coming toward them, curious, excited, already a little angry.

The tourist's threat to cause trouble could, in one sense, be discounted. Under ordinary civil law, at least, the physical person was sacrosanct, and if the tourist had suffered through contacting a force field (force field? How could that possibly be? It was nonsense) around Don, it was plainly the tourist's fault.

But if there was any sort of investigation at all, the doll would certainly be discovered. And—

For an instant longer Don stood watching the crowd, the excited, gabbling crowd, hurrying toward him. Were these well-dressed, slightly tipsy people capable of pursuing him? He didn't think they were. He took to his heels and ran.

V

"SO YOU think there's a high-vi force field around you?" Kunitz said. His tone made it almost as much a statement as a question.

Don shrugged. The two men were sitting in Kunitz' living room; it was the day after Haig's encounter with the plump tourist. With a part of his mind Don noticed that the room seemed slightly less disorderly than usual. It must be because Kunitz had pulled up the sheets on the bed and covered it with a length of one of the "exotic native fabrics" "there were no natives on Fyon, naturally" which the girl in the curio shop in the bar sold.

"I don't think anything about it," Haig replied, looking absently at the iridescent blue and pistachio flowers on the fabric. "How could there possibly be a field around me? A field requires some sort of projector. It's nonsense. I haven't got anything like that. But that's what the man with the miragems said."

"Um." Kunitz opened a box of prepared Betla chews and popped one of the cubes in his mouth. He offered the box to Don, who refused. "Well," he said, shoving his cud into his cheek with his tongue, "something must have happened. He didn't imagine it. It's true you haven't a conventional projector, but . . . I've got an idea. Give me the doll, Don."

Don reached into his pocket, took out the tiny weeping image, and handed her to Kunitz. The latter accepted her and set her down gently on the table top. "Nothing happened, you see," Kunitz said. "Put her back in your pocket, Don. This time I'm going to try to take her away from you."

Don obeyed. Rather gingerly the older man came toward him, slipped his hand into the pocket, and extracted the doll. "No fireworks that time, either," Kunitz remarked. He rubbed his nose thoughtfully. Don thought he looked rather surprised. "I wonder if . . . Um . . . Look here, Don, when the tourist reached for the doll, did you want him to have her?"

"Of course not. I told you I'd already decided not to sell her. I was trying to get away from him.

"That might make the difference. This time, when I try to take the doll, I want you to keep your mind fixed on not wanting me to have it. I'm the fat tourist with the miragems, and you resent everything about me. Concentrate!"

Don did as he was told. Kunitz came toward him once more, looking wary. He reached out for the doll. Don felt a fine tingle, like a network of slender electric shivers, run over his skin. And almost synchronously with the tingle, Kunitz gave a sharp cry.

"Pharol!" he said. He was holding his hand and shaking it, just as the tourist had done. "Of all the damned—! Pharol! How it hurts!"

HE WAS almost hopping with pain. He looked around the room wildly until he spotted the jug of drinking-water. He hurried to it and thrust his hand into the liquid. The pain seemed to subside.

"I'm sorry," Don said. He had been watching helplessly.

"Oh, that's all right," Kunitz said. His color was coming back. "It was my own idea, anyway. I thought I'd get some reaction. But I didn't think it would be so intense as this."

"What happened? Was it a force field?"

Kunitz shook his head. "Damned if I know. Something seemed to take hold of all the nerves in my hand and start scalding them. I don't think I'd have

been surprised if steam had gone up when I put my hand in the water pot. I guess a force field could cause it. I'm not a physicist."

"But—where would a field be coming from?"

"From the doll, I suppose. Maybe it projects some sort of force. That might account for the doll's 'unsettling' effect. Perhaps that's what the force field does when it's not on strong."

"Um." Haig swished the phlomis around in his glass.

"Or the doll might focus mental force, in the way that a lens focuses light. You were concentrating on not wanting me to take the doll away from you. Let's see if it works when the doll isn't actually in contact with your body."

"How about your hand?"

"I'll use the other one," Kunitz said a trifle grimly. "Take the doll out of your pocket and put it on the table, so. Now, stand near it. A little closer, Don—oh, about a meter away. That's it." Kunitz cocked his head critically. "Yes, and remember this time too that I'm the plump tourist. You can't decide what it is about me that you hate the most, but you'd just about as soon kill me as have me touch the doll. Concentrate! Now!"

ONCE more Don felt the slight tingle. This time Kunitz' exclamation of pain was softer. "Not quite so bad as before," he said, biting his lip. "Pharol, though, but it's hard to take. It seems to tickle up all the pain possibilities of my nerves."

"Yes. Look here, Kunitz, you take the doll and put it in *your* pocket. Concentrate on not wanting me to have it. And I'll try to take her away from you."

"All right. I'm warning you, though, you may get a bad jolt."

The tiny drama was performed. "No jolt at all," Don said, holding out the doll.

"And I really was doing my best at concentrating. You know what I think, Don? I think the doll is somehow, unh, tuned to you."

"To me personally?"

"That's what it looks like. (I wonder if your finding her was really accidental? If she's actually atuned to you personally, it can hardly have been.) But whether or not she was planted purposively for you to find, she apparently can't be taken from you without your consent.

"You see, the first time I tried to take the doll from you, you knew it wasn't serious. I'm a friend of yours, I'd give her back, and so on. The second time, you were concentrating on feelings of hostility. And there were fireworks that time.

"It would be interesting, if my hand would stand it, to try more experiments. I wonder, for instance, whether she could be taken from you while you were asleep. I don't think she could . . . More phlomis?"

"No, thank you. I haven't finished this."

"You've hardly touched it, in fact," Kunitz said, smiling. He leaned forward. "You know, Don it's less than a week since you found the doll. And yet you've changed, changed so much in some ways that I hardly know you. This must be the quickest 'cure' on record. Imagine Don Haig refusing a drink! Do you notice the change yourself?"

"Yes," Don answered shortly. He felt embarrassed and annoyed. No man likes to have been reformed in spite of himself.

"It's not only the drinking, it's—you seem more mature than you did. More responsible. Personally, I'm all in favor of the change." Kunitz laughed. "You look lots better physically, too, though there's still plenty of room for improvement. But are you sure you want to keep the doll? If she's responsible for the change in you? Yesterday you were pretty doubtful about it."

"I—yes." Don hesitated, moistening his lips. "That part's all right." He didn't want Kunitz to think he was growing hysterical and nervous. "How-

ever . . . I think somebody is following me."

"What makes you think that?"

"Last night, when I was coming home from Payne's, I kept hearing a rustling in the bushes. It stopped whenever I stopped."

"Probably one of the robot gardeners. They do a lot of work at night."

"Well, it didn't sound like one. I went on home. I was just going to sleep when I heard a noise—it's hard to describe—a sort of light tinkling."

"You mean, like somebody walking around outside your shelter?"

"Not at all like that. This morning when I got up I looked around. The sand in my shelter and just outside it was full of tiny pits."

Kunitz spat his Betla chew into the corner of the room and poured himself another glass of phlomis. "Might be sand fleas."

"Oh, balch! There aren't any sand fleas on Fyon. I ought to know. Besides, they weren't that sort of pits. They were tiny and hard, as if the sand had been pressed down into them. They were the sort of pits Kunitz, you get when somebody's using an eye-beam that isn't focused quite right."

KUNITZ got up and began to walk around the room. "An eye-beam. Yes, I suppose it could be. Yesterday you dropped a lot of hints about some valuable art object you had, and you gave a convincing demonstration that there was some—sort of force field around you. That same evening you think you're followed, and somebody uses an eye-beam on you. Pretty quick work. But it could be."

"Who would be using an eye-beam?"

"Well, of course they're illegal. But the law is broken pretty generally by those who have enough tug. Cult leaders use eye-beams a lot, I've been told. A few wealthy people have them. And of course the SSP."

"I thought of that. It sounds more like them. But would the SSP be using

[Turn page]

one that was badly focused?"

"Um, yes, that's a point. Our miniature government is nothing if not efficient. And besides, art objects are not the sort of thing the SSP interests itself in. If you were a scientist, now . . ."

"I don't like being followed and spied upon."

"Who would?"

"It isn't amusing when it happens to you. I wish I had some way of drawing whoever's watching me out into the open."

"Whatever it is, it's obviously connected with the doll. I still think you ought to get rid of the thing. But I tell you, Don. Why don't you use the doll as bait?"

"What do you mean by that?"

"Well, it seems unlikely that the doll can be taken away from you. By force, anyhow. If you show the doll around, exhibit it—it ought to provoke your watcher into some sort of action. It might draw him out where you can get a look at him."

"Um." Haig got up to go. "Time for me to collect more dakdak splinters at the restaurant. Your idea about the doll doesn't seem bad. But I'd hate to endanger her."

"I don't think you would."

"I hope not. I—" Don stopped abruptly.

"What's the matter?" Kunitz asked, looking up.

"Nothing. I had an idea, that's all."

"What was it?"

"Nothing worth repeating. Foolishness. I'll be seeing you, Kunitz." He nodded to his host and started down the path.

The idea was, of course, foolishness. Kunitz an agent of the SSP! After the story Kunitz had told him, after what he knew of Kunitz himself! It was absurd. But he had had the idea. Why had he thought of it?

VI

"THERE'S going to be a show in Baade tonight," Payne said. He was leaning against the door jamb of the restaurant kitchen, chewing leisurely on a square cud of Betla nut. "I don't know how they ever came to let a thing like that land on Fyon, when they're so careful about 'keeping up the atmosphere' that they won't even let us have tri-di sets."

"A thing like what?" Don asked.

"I hear it's a kind of a circus, with robots and some animals. Probably doesn't amount to much — only one live human performer, the owner. But anyhow . . . I'm going myself, and I'll let you off early if you want to go."

"Thanks," Don said. He wasn't at all sure he'd take in the circus, but it would be nice to get done with the dakdak pods a little ahead of time.

Payne lingered. "By the way, you still got that thing, that doll, you showed me?"

"Yes," Don answered without looking up. His hands were slippery with dakdak pulp, and his back was tired.

"You have any trouble with it?"

"No, none." The reply was perfectly accurate; since the talk with Kunitz, there had been no pittings in the sand outside Don's hut, nor had he felt that he was being followed. Perhaps he had imagined it in the first place.

"Well, you be careful," Payne said, preparing to depart. "It's a beautiful thing, and I'd like to see it again some time. But it's bound to cause trouble. Or somebody might pick your pocket, and then where would you be? You ought to sell it—you'd be rich."

It was quite late that night when Don decided to take a look at the circus. He had passed the evening as he passed all his evenings now, in looking at the doll. The occupation might have been passive and somnolent; but Don never took his eyes from the tiny image without feeling that he had been engaged in something richly adventurous, something as full of hazard as it was of pleasure. Perhaps it was this sense of possible danger that made him get up suddenly and start toward the square where the circus was. For tonight, at

least, it seemed a refuge, an anchorage, a sort of antidote.

The circus, under its small pneumatent, was almost ready to close. Only a handful of spectators still lingered. The sides had been put up on the animal cages. One of the robot puppet shows, *Life Among the Insect Men*, was still jerking mechanically through its antics, but the others had been folded away, and the personnel of the mind-reading act, two sleekly intelligent hexopods, were already hopping into their baskets for the night. The lights were being put out. A robot gardener was clanking away at its nocturnal duties in the greenery on the edge of the square.

Don watched for a moment and then turned to go, his shoulders lifted in a shrug. The impulse that had brought him to the circus had already spent itself. "Excuse me," a voice behind him said, "but are you the man who has the weeping doll?"

DON faced the sound, a little startled. He had not known that anyone was near him, and besides, the voice had a muffled, padded quality that fell unpleasantly on the ear.

The person who addressed him was a big, hulking man who ought to have been even bigger than he was. His clothes hung loosely on him. His large-framed body seemed to have shrunk in on itself, and the flesh of his heavy face sagged away from craggy, jutting bones. He had extremely light eyes. He was dressed in white.

"I'm the owner of the show," the man said, as if in explanation. He coughed. "About the doll . . . What an attraction it would be!"

Don laughed. "You mean you want the doll for an exhibit in your show, Mr. —?"

"Bendel's the name," the man answered. "No, not that. Though, as I said, she'd be wonderful. The fact is, I'm suffering from a fatal disease."

Involuntarily Don moved a little away. "Oh, it's not contagious," Bendel said, with a touch of irritation. "It won't hurt anyone but me . . . Could I see the doll?"

Don hesitated. In an attempt to follow Kunitz' advice, he had shown the doll to Payne at the restaurant, and to Henry, at the bar. Payne had been deeply impressed and a little afraid; Henry had insisted with nervous vehemence that it must be a fake. But there was no real reason why Don should let a stranger see the doll.

There was eagerness, and anxiety, on the man's face. Behind him Don heard the hexapods snoring in their baskets; the noise, illogically, reassured him. He produced the doll.

Bendel drew a deep breath. He made no attempt to touch the little image. "It's not quite like the one in the museum," he said after a moment. "The expression is a little different . . . And the pose of the arms . . . Could I have it for a couple of hours?"

Don's surprise must have shown in his face. Bendel shifted his eyes. "I—the fact is—I'd pay you well for it. I'm not a rich man, but anything I have—I mean . . . Come into my office, and I'll tell you about it."

He led Don into a cubicle at one end of the brown pneumatent. He opened a low cupboard and got out a bottle and tumblers of yellowish green glax. Don noticed the faint, hairlike scars of Dumortine use on his wrists. "Rum," Bendel said, indicating the bottle; and then, when there was a sliding rustle from the bottom of the cupboard: "It's only a Saturnian lizard—he's sick . . . Your health."

Don took the drink. He sipped at it. It tasted good, he enjoyed it. No more than that. He felt a sharp, irritated nostalgia for the fun he had used to get out of drinking. It hadn't all been arthritis and hangovers, by any means. It was the doll who was responsible for the change.

Bendel put his glass down empty. "I want to hold the doll," he said simply. "I want to hold her in my hand for a couple of hours."

Don studied the surface of the liquor

in his glass. "Why?" he asked with equal simplicity.

"Well, you see I have this disease. That's the reason why my voice sounds the way it does. (If I didn't think it would frighten you, I'd let you see me without cosmilac. That would convince you.) The doctors say it has something to do with the corpuscles in the blood. Hardly anybody has it."

Don gave a grunt intended to express sympathy. "But what's the connection with your wanting the doll?"

"That's what I'm trying to tell you," Bendel said with a touch of stiffness. "When I got the first symptoms, I went to the group doctors, and they told me I'd be dead within three years. That was not quite three years ago.

"What was I to do? They'd had consultation after consultation, and at the end they'd given me my death warrant. And by a nasty sort of death. I heard about a quack, a kind of faith-healer and astrologer, and I went to him. This was in Marsport, in the poor part of town."

THE light in the little canvas cubicle was yellowish, not the usual clear artificial daylight tint. One of the animals in the cages to the left howled briefly, just at the limit of audibility. Don set down his drink. "What did your quack say?" he asked.

"He said my disease was caused by the sun's having reached a point, in its 200,000,000 years, journey around the galaxy, where there were all sorts of harmful radiations. Only a very few people were sensitive to them, but I was one of the people. That's what he said.

"I asked him if there was any cure, and he said there was. He had a lisping way of talking that made everything he said sound like he was making fun of you. Anyhow, he told me that the weeping doll in the museum on Terra, if I could be exposed to the emanation from it, would cure me.

"I don't know whether I believed him, exactly. But of course I decided to try it. I looked up the schedule, and the doll was just about due to go on display. I went to Terra and waited. She was on display for a week. The crowds were terrific. But I did manage, for three days out of the week, to get right in front of her case and stay there for—oh, maybe half an hour.

"Then I went back to the group doctors. I didn't tell them what I'd been doing. They made a lot of tests and kept me in bed for a week with some kind of meter strapped on my chest, and then they told me—they were very surprised—that the disease had been arrested. I would live at least a year more than they had said at first. I'm in that year now."

Don nodded. The story was adding up. His head was beginning to ache.

"The doll isn't due to go on exhibit for another four years," Bendel said. "I asked the museum authorities to let me see the doll in private, but of course they refused. They must get lots of requests like that.

"Your doll—you see, the fact is, she's very much like the one in the museum. Almost her twin. If you could let me hold her in my hand for a couple of hours, I think—" his voice sank almost into blurred inaudibility—"I think I'd live."

Don chewed his lower lip. He realized without surprise that it didn't make the slightest difference whether or not he believed Bendel. A decisive part of his mind, a part with which his consciousness had no concern, had resolved that he wasn't going to part with the doll. Not even for a couple of hours? Not even, possibly, to save a life? He didn't know about that. But he wasn't going to let Bendel have the doll.

"I'm sorry," he said. "It's impossible."

A LONG moment passed before Bendel sighed. "People are selfish," he said, *"selfish!"* He rubbed a trembling finger over his lips. ". . . But I want to warn you anyway, for your own good . . . Have you noticed any changes in your personality, your character, since you've had the doll?"

Don gave him an involuntarily startled glance.

"Of course you have," Bendel said with satisfaction.

"You could have found that out from anyone in Baade," Don observed.

"Maybe. But I know what the real reason was that the museum authorities wouldn't let me have the doll. Their getting so many requests is only part of it. The dolls are dangerous."

Don made a contemptuous noise.

"Oh, it's true," Bendel said mournfully. "After they wouldn't let me see the doll in private, I made friends with one of the museum attendants. I had hopes that he might . . .

"He couldn't arrange it. Maybe he didn't want to. There is always that terrible human selfishness. But he used to go and stand in front of the doll himself, you know, for hours. He stole the keys. He said he felt as if he'd been cold all his life and only, when he saw the doll, did he feel warm."

It was a hit; Don's fingers tightened on the empty glass. He deliberately relaxed them. "Everyone knows the doll in the museum in unsettling," he observed.

"Oh, yes. But his personality changed, his character. At first it was an improvement. Perhaps you've noticed that. Then he began to lose weight and complain of pains in his bones.

"I heard the end of the story by accident. One day he was missing. They looked all over the museum for him. It's a big place, you know, spread out over a couple of hectares. Finally they found a pool of slime in front of the storage case where the weeping doll was kept. His signet ring was in the middle of the pool."

Don managed a sarcastic laugh. "I'm too old to be frightened by slime deaths," he said. "Stories like that are more effective when the hearer is under twelve years of age."

"Oh, yes. But I'm not trying to frighten you. The fact is, there's a strange corrosive kind of life in the dolls. You won't let me hold your doll for a couple of hours, when it might cure me. Might save my life. Very well. That's between you and your communion with the infinite. But I want to urge you to get rid of the doll. Do anything with it—sell it, give it to somebody, throw it in the garbage reducer. Get rid of it! It's beautiful, and wonderful, and terribly dangerous."

Bendel was trembling. In the silence there was a sliding rustle from the cupboard where the Saturnian lizard was in hospital. Don pulled the weeping doll from his pocket and looked at it.

Bendel's shaking had stopped. He was watching Haig intently. Don licked his lips. He touched the doll's cheek with his forefinger, and it was wet. He put her back in his pocket slowly and deliberately.

Bendel threw back his head and laughed. He laughed like a hyena. Don saw that there was hair on his tongue.

VII

"WHAT do you think of this one?" Francine asked. She unwound a length of simmering bluish greenish purplish cloth from the bolt and threw it in a long train across the bed. The bed was already covered two or three deep with partly unwound rolls of cloth. "I had a tohu-bohu with the head loomster every day for a week before he got the colors right."

"Very handsome," Don said. He was sitting on the edge of the only arm chair in Francine's hotel room; for some reason, he couldn't make himself relax. "I never saw anything like it. But—excuse me, Fran—what are they for? Your fabrics are beautiful, but I can't imagine them being used for dresses or curtains or anything like that. They're so—unh—mortuary. Funereal."

His foster sister burst into delighted laughter. Her small, chic nose wrinkled up with merriment. "Don, you always were clever! 'Funereal!' That's exactly it. But—" her face grew sober—"didn't you get my 'grams? Didn't you? I'm almost certain I sent you a

'gram when I got my new job."

Don licked his lips. He had a vague recollection of 'grams from Francine, 'grams which had come when he'd been drinking a good deal. He didn't have the slightest recollection of what had been in them. Maybe he'd thrown them away without opening them. "I don't believe they were delivered," he said dishonestly. "I was living in the sand all the time then. On the beach."

Francine frowned. "I'll have to complain to somebody," she observed. "A fine state of affairs, when first-class 'grams aren't delivered. Anyhow, Don, what I told you in them was that I had taken a position doing designing with the Solace and Assurance branch of Emotional Health. I like it. I feel I'm doing something useful, useful to society, now."

"What do you do?" Don asked. He wished Francine would sit down. He liked her, and was moderately glad she'd taken time to stop off at Fyon to see him, but she was always so restless. It irritated him.

"Well, these fabrics . . . You see, Don, one of the worst emotional wounds a person can sustain is that of losing someone dear to him." Francine was speaking with her customary intensity, her small, bright head held slightly on one side. "It's always been a terribly traumatic experience. The psychologists in Emotional Health have been working on that problem—how to soften the blow of loss and death—for a long time.

"About a year ago they sent in a group of provisional recommendations to Emotional Health. One of the chief suggestions was that, instead of trying to repress and ignore the death experience, we should dramatize it more. Make more of it, so to speak." Francine paused as if she expected an answer.

"Yes, I see. But—."

"As the Egyptians did, Don. All Egyptian culture was colored by the feeling for the dead. Their finest buildings were tombs and mortuary structures. Instead of repressing their emotions about death, they dramatized them. They brought them out in the open where they could look at them.

"The dramatization was definitely conducive to mental health. The psychologists tell us that it is no accident that no other human culture has yet lasted as long as the Egyptian did." She nodded wisely at him.

"Um. But what has that got to do with your new job?"

"Oh, it's perfectly simple. Part of Solace and Assurance's campaign for dramatizing the death experience includes leaving the loved one with his deprived ones for a while. Not hustling him away underground, you see, as if there were something obscene in the very fact of death. That means a suitable setting for the loved one in his repose coffer. Of course, even with the best methods of preservation, there are bound to be some changes in coloring in six months or a year. My fabrics try to pick those changes up and harmonize with them."

DON squeezed an imbedded dak-dak spine from his forefinger. He could not raise his head to look at her. He said, 'Then you design—?"

"Fabrics for the lining of repose coffers. Yes, dear. Oh, and that reminds me—." She was still moving about the room in her bird-like, restless way. "I've brought something for you, if I can find it. Do you remember Venable?"

"Certainly. I always liked him. What's he doing now?"

"Well, he—they sent you this." After some hunting, she produced a small object from the depths of her glossy almandine hand case and handed it to him. Don turned it over curiously.

It was about as long as the first joint of his thumb, black on three sides, with the fourth made of something like glass. "What is it?" he asked.

"Look through the top, dear," Francine said, bending over him. She was wearing some odd, flat perfume. "It's made so it will magnify."

Don obeyed her. He almost dropped the trinket in his surprise. Inside the

little black container, on a bed of livid bluish fabric, lay Venable. His tiny feet were side by side, his hands were folded neatly on his breast. He was wearing the conventional dark-blue evening dress. He looked smug, and self-satisfied, and thoroughly dead.

Don put the thing down on the tabouret beside the bed. "What is it?" he asked.

"We call it a memento mori," Francine answered. "Though that's not really a good name—the suggestions in it aren't right. We'll have to think of something else . . . It's a remembrance of the loved one for the deprived ones to keep. Venable's estate had them made up for his friends. They wanted you to have one."

"Venable's dead, then?"

"He's gone on ahead, yes."

"What did he die of? When I knew him, he was an athlete, in perfect health."

"Oh, he was killed in an accident," Francine replied with a touch of vagueness. "Although—." She halted, biting her lip.

"Go on," Don said.

"Well, I've heard—probably there's no truth in it—that there was something about the betrayal of cult secrets. That his death wasn't *entirely* an accident. But then, people always say things like that, when somebody dies suddenly."

Don was silent. He had liked Venable, though he had not seen him for years. Francine stopped her pacing. She pushed the bolts of dead-colored fabrics aside and sat down on the bed. "I want to talk to you, Don," she said, leaning toward him. "About yourself."

He had been expecting this. Francine probably felt it was her duty. "All right," he said.

"Look here, Don, why don't you stop your drinking and come back to Terra? What keeps you here? I don't see how you can bear to live like this."

"I told you, Fran, I *have* stopped drinking."

"You've told me you've stopped drinking before," Fran said with a touch of humor. "There was a time, four or five years ago, when you didn't touch anything stronger than low-proof soma for months."

"This time it's serious."

"Maybe. What's keeping you here on Fyon, anyway? A girl?"

"Women always think it's a woman," Haig returned rather wearily. "No. Fran, I like Fyon. That's all."

HE GOT up and went over to the window. The sky was growing covered with darkly luminous clouds. It was almost time for Fyon's regular afternoon shower. In his hip pocket he could feel the faint warmth of Vulcan's weeping doll.

Francine came to stand beside him. "It's such a selfish way to live," she said soberly. "Such a waste of yourself. You're not helping anyone."

"Oh, I don't know," Don replied perversely. "I pit and stem a lot of dak-dak pods, which is certainly useful. And I'm not hurting anyone."

"I know, but . . . Look here, Don, I could get you a good job on Terra. Designing the sort of thing Venable's estate sent you. You always had the most wonderful taste."

Haig made an involuntary gesture of repugnance.

"Or I could get you something else," Francine said quickly. "I know a lot of people. Let me try."

"I like Fyon."

"It's only an artificial planetoid."

"Sometimes I can forget that."

There was a pause. "Do you ever use your little communion mirror any more, Don?" Francine asked suddenly.

"My—? Oh. No, I don't."

"Perhaps that's it," Francine said sagaciously. "We do need something outside ourselves—call it religion—the psychologists are always telling us so. I think you ought to start using the mirror again, dear.

"The mirrors are a wonderful help. Of

course"—her tone altered so oddly that Don, who had been looking absently out the window at the cloudscape, turned to stare at her—"of course it's possible to go too far with them. Those paschein harnesses, I mean. What if you can see wonderful, unbelievable things with them? It isn't normal, it can't be good for you, to do things like that to yourself. It's going too far." She sounded as if she were talking to herself.

"No, I don't believe in the harnesses, Don." Francine shook her head. "But the mirrors themselves—that's religion. It's wholesome, normal. I wish you'd begin using yours."

"I've never been able to see anything in one," Don answered. "Why don't you let me alone, Francine? It isn't any of your business. It's my life."

After a moment, his foster sister smiled up at him. "All right," she said. "I've always liked you, Don. I'm fonder of you than I am of my real brothers, I think." She laid her light, thin hand over his.

Before he could return the caress, there came a knock at the door. "I'll go," Haig said.

"No, let me. It's probably for me." Quickly she moved toward the port.

It was one of the robot bellhops, gay in its glossy green paint. It made a clucking, apologetic noise, and then held out one of its upper appendages toward Francine. She extended her hand.

Haig, at the window, did not know what warned him. He ran across the room; he caught Francine by the waist and threw her to the floor. The darts from the sliver gun in the robot's hand thudded harmlessly into the wall. Then the robot had turned and was gliding away on noiseless wheels down the hall.

HAIG and the girl, sprawled on the deep soft floor covering, stared at each other. Francine, under the enamel smoothness of her maquillage, had turned a rather greenish white. "Oh, dear"—her voice was coming out in a high half-crow—"Oh dear! Don, somebody's trying to kill me. It's . . . why?"

"I don't think it was meant for you," Haig answered stiffly. "The robot was shooting at me, Fran. It was an accident that you answered the door."

Francine got to her feet. She was shaking with nervousness and had to hold on to the bedpost to keep upright. "I—I didn't mean—." And then, blinking, "Oh, Don, what is it? What kind of a mess have you got into here on Fyon?"

Haig was already regretting that he had spoken. He tried to think of something to tell Fran, something that would quiet her. "It's not a mess," he said finally.

"Not a mess? When a robot shoots at you with a sliver gun?" Fran gave a shaky laugh. "Oh, Don, you've got to leave Fyon now. It isn't safe for you to stay here, after this."

Haig compressed his lips. "It wouldn't do any good," he said. "Believe me, Fran, I wouldn't be any safer away from Fyon than I am here." He thought 'As long as I keep the doll . . .'

He walked over to where the darts had fallen and examined them very cautiously.

"Be careful," Francine said, shivering. She sank down limply on the bed. "That's s-such a n-n-nasty way to get hurt. . . . You w-won't leave Fyon?"

"No." He was growing excited. "Look here, Fran, where the darts fell. Even if I hadn't thrown you down, I don't believe you'd have been struck. They were aimed wide of you."

"Why?" his foster sister asked dazedly.

"As a warning, I suppose. To frighten me."

"Oh." Francine's color was a little better than it had been, but she sounded as if she were on the edge of hysteria. She plucked at the folds of her stiff black skirt for a moment. "You've got to stop drinking, Don," she said suddenly.

"What?" Haig had chucked the darts into the disposer. Now he looked at her

incredulously. "What are you talking about?"

"That's the cause of everything," she said. She licked her lips. "I'm sure of it, Don, absolutely sure of it. If you stopped drinking you could get out of this mess, leave Fyon. I'm sure of it. Don't argue with me."

"I'm not arguing. And I'm *not* drinking. You've had a shock, Fran, of course, but you needn't be so unreasonable."

"I told you not to argue with me!" She sounded as if she were going to start screaming. Her eyes had an odd, blank look. "Listen, Don. You've got to do this for me. I insist on it. Before I left earth. . . ."

"Well?"

"Before I left earth," she resumed with what seemed to be a considerable effort, "I went to one of the best group doctors and told him about you. And he gave me these. . . ."

She opened her handcase with trembling fingers. She fumbled through several compartments and dumped a dozen glowing little glassite bottles on the bed cover before she found what she wanted. It was a small, russet-colored box.

"He gave me these," Francine said. She would stop trembling for a moment and then begin again. "He said they were something new for alcoholism, something wonderful. He said they'd be sure to cure you. Here." She held out the box on her shaking palm to him.

THE rain had begun to beat against the window irises. The room darkened for a moment and then grew light again as the phosostat came on. Don looked at the box without accepting it.

"I don't need it, Fran," he said, raising his voice so she could hear him above the noise of the rain. "What's the matter with you?"

She began to beat against the gold-threaded coverlet with her free hand. "Take them, Don, take them," she said desperately. "Don't you see, I wouldn't dare leave Fyon after this if you didn't? How could I go back to my job if I knew you might be injured, killed? But if I know you've stopped your drinking. . . "Oh, I know you say you have. And you do look a little better. But at the same time, Don, you don't look like yourself. You look harder and thinner than you did. I'm worried about you. I'm afraid.

"Take the pills. They can't possibly hurt you. I asked him twice about that. He said they did something to the temporal sense. But if you don't need them, they won't have any effect. Won't you, please?"

In sheer pity, Don nodded.

Francine kept looking at him. "Promise you'll take them," she said beseechingly. "You always keep your promises, Don. Promise you'll take them. The directions are in the box."

Haig made a harassed gesture. "All right. I promise. All right."

He took the box from her. He put it in his pocket, the opposite one from that which held the weeping doll.

Francine gave a deep sigh. For a moment she covered her face with her hands. Then she groped among the litter from her case until she found a slender emerald green cylinder. She rubbed the stimulant it contained over her face and hands lavishly. Don watched her, a little puzzled. But of course the narrow escape had upset her. It would have upset anyone.

"I feel better," she said in a moment. "I should have used the stimulant before. About the pills, I'm so glad you promised. What time is it, Don?"

He told her. She jumped to her feet in alarm. "I've got to start packing. If I miss the lighter, I'll have to stay over until tomorrow, and that will teredo everything. Help me with my cases, won't you, dear?"

Don obeyed. Ordinarily, Fran would simply have clicked for the robot, but under the circumstances she would hardly want to summon it. He pulled the case support out of the wall and began to move the cases onto it. Fran's room, as might be expected in a small provincial hotel, was none too well equipped.

The first two cases, small musettes, had normal weight. The third, a huge affair, had a partial antigrav. The fourth, a small, scalloped thing, had true weight, like the first. Don picked up the fifth case, which was globular, expecting it, too, to be full weight. In his surprise at its feather lightness, he swung it involuntarily high.

At the same time, quite by accident, his thumb twisted and came down hard on the latch. The case split open. Don looked into it.

There was a communion mirror, an unusually large one. And beside it, neatly coiled, was a bundle of metallic straps.

It was a paschein harness, no doubt of it. It must be Fran's own harness; they were fantastically expensive, since they had to be fitted with great exactness to the user's individual anatomy, and she would hardly be carrying someone else's harness about with her. The harness had been used, used many times, Haig saw. The tips of its metal barbs were stained and rust-colored with dried blood.

HE LOOKED around the room, his heart thumping. Fran had stepped out on the balcony. She called something back to him in a gay voice. He was sure she hadn't seen the case open.

He shut it again quietly. He was feeling a little sick. Agonizing self-torture, as an aid to spiritual insight—the idea revolted him. Had Fran spoken against the harnesses as a subterfuge, or was she really disgusted with herself for using one? Fran! He'd known her as far back as he could remember. He stood with his shoulders hunched, thinking. Perhaps it was all right. A lot of people used the harnesses. After all, they weren't illegal.

Fran came back from the balcony, smiling. She seemed almost like her normal self. "What's the matter, Don?" she asked as she moved toward the highboy. "You're looking pretty depressed. Are you sorry you promised me about the pills?"

"No." He hunted for an excuse. "I suppose it's a delayed nervous reaction to being shot at by the robot with the gun."

"Oh, you poor fellow! Yes, of course." She rubbed the stick stimulant in the emerald container lightly over his forehead. "That's better, isn't it? Now I'll have to pack my fabrics and coat my face."

She rolled up the bolts of strange, livid fabric expertly and put them in the big weightless case. With the cosmetics from the scalloped container she created a charming mask. "All done," she said finally. "Sure you can carry everything, Don?"

"Of course."

In the hotel lobby, she signed chits for

her accomodation. The clerk, a human being, was polite; Haig felt he was gaining prestige in Baade by being seen with Francine.

They walked along the square to the lighter landing. The perfumes of Fyon floated gently around them in the still-moist air. Haig said little, but his foster-sister chattered almost continually. She was amusing, she was inconsequential, she was gay. She seemed to have quite recovered from her recent fright.

The lighter was waiting for passengers. Francine kissed him on both cheeks. "Remember, dear," she said, "and be careful. I do hope you'll be all right. Good-bye."

"Good-bye, Fran." He gave her cases to a robot porter.

She stepped on to the anti-grav and moved slowly upward. At the top she halted and waved at him. "Good-bye, dear," she called. The light fell full on her face. Her skin was dazzlingly white.

Bone-white. Don sucked in his breath incredulously. For a second he saw a fleshless face and empty eye-sockets. Francine's slender neck was topped by a sphere of bleached bone. She was turning on him the grinning cordiality of a skull.

The hallucination, so painfully vivid, passed. He managed to wave at her. With a profound sense of relief, he turned away.

VIII

HAIG worried about Francine off and on all next day. The thing he had found in her luggage, the attack on him by the robot, her peculiarly nervous manner, even the hallucination he had had—all these blended into a a large and unresolvable uneasiness. He did not sleep well.

Late the next day he got a 'gram from Francine. It was delivered to the restaurant by a robot, along with an isotype translation, in case the addressee wasn't literate. Don pulled the tape on the message rather apprehensively.

"So worried about you," it ran. "Are you taking your pills? You promised. Dearest love. Francine."

Don began to smile. The style of the missive, thoroughly characteristic of Fran as it was, heartened him. For the first time since she had left, he began to see things in what he thought was a normal perspective.

The harness couldn't possibly have belonged to Fran. That was the first point. She must have been taking care of it for someone, a friend or a lover; over whose use of the device she was deeply distressed. That would account for everything—her nervousness and lack of rationality, her attack of the use

[Turn page]

of the harnesses, even her insistence that Don take the pills she had brought. Perhaps to her, in her nervous, overwrought state, alcoholism had begun to seem as serious a danger as addiction to the paschein harness.

Now that he had thought of these things, he felt much better. Of course he still had the attack on him by the robot to worry about, but he was almost sure that the sliver gun darts had been deliberately aimed wide. The attack had been meant to intimidate, not to kill. Presumably the idea was that when an effort to get the doll away from him was made, the attack would have rendered him disposed to be cooperative.

He folded Fran's message and shoved it into his pocket smiling. His fingers touched the box she had given him. Oh, ugh, the pills. Well, he'd promised. He might as well start taking them.

He opened the box. They were quite ordinary-looking tablets, white and round, and there were about twenty of them. The directions on the box lid read, "One every four hours." The same message was given below in isotypes—a round pillule followed by four clock faces, each with the hour hand advanced by one hour.

Don filled a glass from a font and put a pill on his tongue. It had a slight soapy, saline taste. He swallowed it.

Payne came out in the kitchen while he was dosing himself. "Sick, Haig?" he asked curiously. He watched Don put the box away in his pocket.

"Not exactly."

"Oh." Payne inspected him critically. "You look O.K.," he said finally. "Lost a little weight, maybe, but nothing to worry about. Say . . . you know that doll you had? Well, could you let me have another look at her?"

"Why?" Don asked after a second.

"Dunno, exactly," Payne answered. He rubbed his nose. He sounded as if he were a little surprised at himself. "I'd just like to look at her."

"I'm sorry." Don went over to the heap of dak-dak pods piled on a salver and began to work on them. "I'd rather not."

"Why? You let me see her once before. You asked me to look at her!" Payne sounded indignant.

"I know. I'm sorry." There was no use trying to explain to Payne the reluctance he felt toward showing the doll.

Payne glared at him. He began throwing scraps and used plates into the disposer clatteringly. He was cross all the rest of the day.

By fifteen that afternoon Don's hands were so sore from dak-dak spines that he went out and bought a pair of siskin gloves. They helped a lot. He wondered why he had not thought of them before.

A little before the restaurant closed he took a second dose of Fran's medicine, and he swallowed a third pill before he went to sleep. The pills might as well have been chalk, he thought; they did not even nauseate him.

HE WOKE early, just as the sun was coming up. Lying on his bed of sand —surprisingly comfortable, if one smoothed out its irregularities carefully before lying down on it—he watched the sky turn from translucent blue to pink, amber, apple-green, scarlet and burning gold. Then the sun was up. The glory faded. He went back to sleep.

He woke for good about nine. He bathed in the milk-sweet surf—he would have liked to swim, but that would have meant either letting the doll out of his grasp or swimming in his trousers—and rinsed himself in the fresh water from the spring with the agate pebbles. He cupped water in his hand and gulped down another of Francine's pills. He decided to go see Kunitz. He hadn't seen him for nearly a week, since before Francine's visit.

He walked along the sun-dappled path, whistling. Long-tailed birds shot out across the path on both sides of him, disturbed by his passing. The air was full of their brilliant notes. Once Haig himself began to sing, in his uneven baritone, and a bird somewhere to the right

of him took up the challenge, singing more and more loudly, until at last it burst into a volley of defeated squawks and shrieks. Don laughed.

He picked a blossom from a ginger plant and set it behind his ear. When he had gone on a few steps more, he brought out the doll and looked at her.

As always, he was shaken by her beauty. When he was not looking at her, he forgot how beautiful she was. She stayed in his mind as a kind of wooing sweetness and richness, something which was, by a thousand tiny enchantments, leading him from his coldness and self-hatred back into the warmth of life. But when he looked at her he perceived that her beauty was armed; that, for all her nakedness and tears, she was clothed in power.

He put her away at last. It must be jealousy that made everyone advise him to part with her. His pleasure in her was too deep to let him smile.

A rustle in the thicket made him start, but it was only one of the robot gardeners. What had he been expecting, anyhow? Another attack, like the one in Fran's room? He wished he could dismiss the fear as foolishness. Perhaps it was. And then, one fear bringing up another, he thought: Am I losing weight? Both Fran and Payne had mentioned it. Bendel had spoken of loss of weight and pain in the bones.

He wouldn't think of it. Bendel's story had been, he was almost certain, a fabric of lies, designed to cause fright. He wished he were quite certain of it, but that couldn't be helped. He had the doll. She was his. He was going to keep her. Don walked on briskly toward Kunitz' house. But he was not whistling now.

The next bend in the path would bring him in sight of Kunitz' place. The leaves rustled crisply under foot. He went around the bend.

He wasn't on Fyon any more.

WITHOUT surprise, he saw that he stood in a grove of red and gold maple trees. Their leaves were yellow, amber, scarlet, crimson, and a deep, almost purple, red. The leaves which had fallen lay in drifts about his feet. Overhead the sky was a pale bright blue. The air was crisp and winey, like a bright autumn day on earth.

Ahead of him there was a group of tall, dark pines. The shadows were black between their branches, and he thought he could smell the balsam of their needles from where he stood. On the topmost boughs of the pine trees, burnished and splendid, were three golden birds.

They seemed made of the pure metal, and yet they were living. After a second, he knew what they were. The cocks of Hades, he thought; "Miracle, bird or handiwork? More miracle than bird or handiwork." They were the stars which had lit upon the golden boughs. Yes, it was perfectly clear.

He walked toward the pine trees, smiling with recognition. The trees rose straight up before him, like a rampart. Their green was darker than any black. There was a gray and green sphinx lying under them.

She was a small sphinx, with a sad, eroded, mossy face. The wisdom of humanity had made her sad. A rungless ladder stood beside her and reached up into the branches of the trees.

He stood looking up at them, thinking. The birds were silent. But he knew they had voices. When the cocks crowed, it would shake the heavens. It would be louder than trumpets, it would split the sky open. When they shook out their wings. . . .

He must hear them. He would hear them. But there was a condition. Before they would crow, he must give them to eat from his own hands.

He turned to the sphinx. She was watching him steadily with her polished nephrite eyes. The eternal riddle hovered unvoiced in the air between.

He gathered up his forces to speak to the wise monster. "The answer is man," he said.

She nodded. She half rose on her

gray haunches. With a motion like stone, she broke off her long hands.

They were grayish-green, like her body. He snapped them twice more, easily. Then he fitted them on the ladder to serve as rungs.

He mounted on it. Up he went, up and up and up. The sphinx and her wisdom had vanished. He could not see the bottom of the ladder. There was only a mist of fine silver below him. It was curdled a little, and looped like a stream. At the top of the ladder the golden birds waited for him.

What could he offer them that would be worthy? Their changeless metal could not accept common food. Humbleness made him dizzy. He had nothing. And yet it was useless to hope that they would utter the sky-splitting sound unfed.

He stood on the ladder musing. A cold, vaporous cloud floated close to him and drifted away again. There was something . . . He had something the birds would feed on, if he could remember what it was.

He made a great effort. Then he pulled Vulcan's weeping doll from his pocket and offered it to them.

The first two birds refused it with their gleaming emerald eyes. But the third—Don was giddy with rapture—put out his golden bill. He would accept the offering. He pecked at it.

At the last moment, Don jerked the doll back. He felt a dim surprise at himself. Now he would never hear the voices of the cocks of Hades. Never, never. The ladder wavered. With a cry, he fell backward into the mist.

The sphinx turned an astonished face to him as he went past.

When he came to himself, he was on Fyon once more. His mouth was dry, his tongue parched and thick. He felt empty and emotionless, alien to himself, as if he had been on a drug debauch.

What had happened? He looked about him vacantly. The shadows of the trees were long; it must be late afternoon. What had happened to the day?

He was sitting under an ilang-ilang tree, on the path that led to Kunitz' place. Kunitz? Yes, he had been on the way to visit Kunitz when . . . When. . . .

Sudden terror invaded him. The dream of the sphinx and the birds receded swirlingly, and he knew he had been duped, tricked, drugged. What if he had been robbed while he was beside himself, and she, his little miracle, she —?

Sick with anxiety, he fumbled in his pockets. The tablets Francine had given him were gone. But the doll—he had jerked the doll back in time from the threatening beak. She was still there.

IX

"ALL THE evidence points that way," Kunitz said patiently. "Look at it objectively, Don, as far as you can. Your foster sister insists on your taking a drug which she says will cure alcoholism, even though you tell her repeatedly that you are no longer alcoholic. Even at the time, her insistence on this point impresses you as unmotivated and unreasonable. All clear so far?" He stopped and poured himself a drink.

"I guess so. Yes." Haig made the admission slowly and reluctantly.

"She gives you a drug which, from your description of its taste and effects, was almost certainly alaphronein. Now, alaphronein is not only a very dangerous drug, it is also an extremely expensive one. More than that, its manufacture is virtually an SSP monopoly. One hears stories, probably true, about the semi-official uses members of that organization make of it. You contend that your sister got the drug 'from some quack' and gave it to you innocently. But what would a quack be doing passing out alaphronein?"

There was a moment's silence while Kunitz poured the phlomis down his throat. Don said defensively, "It may not have been alaphronein."

Kunitz shrugged. "The third point," he said, "is your own conviction, on-

waking from the drug trance, that there had been an attempt to rob you of the doll. That's what your first thought was, wasn't it?"

"Well, yes. But of course I wasn't myself."

Kunitz drew in his breath impatiently. "Blast it, but you're stubborn, Haig. All right, then. Take my final point—the nature of your fantasy. That certainly points to a suggestor, as the alaphronein addicts call it."

"What do you mean? I always heard the addicts imagined everything."

Kunitz shook his gray head. "Their fantasies are much more coherent and vivid when somebody is present to give them verbal suggestion on point after point. Now, your drug hallucination was, if I understood you correctly, based on an old poem of which you are fond. Isn't your fondness for that poem known to Francine?"

"She . . . Oh, shut up."

Kunitz chuckled. "I must have touched on a tender spot."

"Never mind that. Look here, Kunitz. Why would Francine do such a thing?"

The older man shrugged. "Might be lots of reasons. Economic pressure, possibly. Blackmail, more likely. Suppose your sister has got mixed up in something discreditable. Or she might have become addicted to some cult practice or drug, and the SSP could lever on her by threatening to shut off her source of supply . . . Did you say something?"

"No."

"Or, just simple intimidation. The robot with the sliver gun, for instance. I don't believe the robot was trying for you. Even a robot wouldn't mistake a woman for a man. Francine knew it was meant for her. That's why she was so upset."

". . . . I don't believe it."

"Why not?"

"Because I can't. Francine — why, Francine and I went everywhere together when we were kids. My foster parents were just—people. They took me out of the institution because of the bonus. But Francine and I were real friends. I used to take her to entertainments and chorics and diwans. She wouldn't do a thing like that. If Francine gave me alaphroneiñ, it was by mistake. My drug hallucination must have been entirely subjective."

"Stubborn son, aren't you?" Kunitz scratched the hair on his chest. "How about trying to check up on it?"

"What do you mean? How could we check up on it?"

"Well, I'm positive your hallucination had some basis in reality. I think a suggestor was involved, and perhaps objects which, when you were in the drug state, could play the role of what you felt and saw. Suppose we go looking for them."

"All over Fyon?"

"Of course not. You were on your way to see me, weren't you, when the drug took effect? If we were to look about in the area where you were when that happened, we might find something."

"Oh, all right." Haig got to his feet and moved toward the door. Kunitz latched it shut behind them. They started down the path.

"It was about here," Haig said at last. He looked about him listlessly.

"Not much use looking for traces," Kunitz observed. "Not with rain regularly every afternoon. But I'll see what I can find." He began moving outward from the spot Don had indicated, in widening circles, with an intent and earnest face.

AFTER a moment, Don sat down beside a champak tree. He crossed his legs and fiddled nervously with the strap of his sandal. He was still feeling the aftermath of the drugging, in the form of a restlessness which was at once languid and irritable. A lizard, brilliant kingfisher blue, darted like a flash of blue fire past his feet. He hoped Kunitz would not find anything.

From somewhere up ahead Kunitz' voice came faintly: "Hey . . . Haig . . . Come . . . here. . . . Found. . . ." and then

another long "Hey. . . .". Don rose reluctantly.

When he found Kunitz, the older man was standing beside an opening in a low tree-grown hill. "We've found the locus of your hallucination," Kunitz said. He was looking pleased.

"Here?"

"No, inside the cave . . . Although it's not really a cave—just a place where the robots can store gardening tools. Come inside. There's light enough for you to see." He took Don by the arm.

The cave was a small place, not much larger than a niche, which seemed to have been scooped out of the rock. There were pruning tools on shelves in it, and on the rock floor a heap of grayish tarpulins. At the right a rickety ladder was standing, its top resting against a stone ledge.

"Pretty obvious, isn't it?" Kunitz commented. "The sphinx was the tarpulins, of course. Now climb up the ladder, Don, and take a look at what's at the top."

Haig obeyed. The ledge, he found, was about six inches wide and coated thickly with dust. Three flower pots of yellowish plastic stood at intervals along it. At the top of the ladder there was a broad smear in the layer of dust.

"The mark in the dust was where your suggestor sat, of course," Kunitz observed. "I've proved my point, haven't I? Come on down, Haig. There's nothing else up there for you to see."

At the foot of the ladder, the men confronted each other.

"Don't you see what this means, Don?" Kunitz said. "You can't go on in the old way, living here on Fyon, working when you feel like it, and enjoying your own unique and personal little miracle, Vulcan's doll. They—the people who gave you the alaphronein—aren't going to let you go on in the old way.

"It was alaphronein. The most dangerous of all drugs, the only one which has a twenty-eighty chance, from the first dose, of raising inter-cranial pressure to the point where the brain tissue bursts. You're lucky, Don, if I may say so. You didn't lose the doll, and you're still sane.

"But you've got to get out of here. Alaphronein means the SSP. How are you going to resist a force like that? You can't. You must disappear.

"Now, listen. I know a space ship captain. I did something for him once. I have reason to believe he won't refuse to do me a favor. With him helping, you can disappear.

"After a while, when it's safe, you can come out of hiding. You'll have a new identity, and if we can find a discreet surgeon, new eyes and a new face.

"It's the only thing for you to do, Don. Don't you see? We can't risk having any more Francines work on you." He laughed.

Until that moment, the issue had hung in doubt. Don had been very near consenting. But there was something in the shape of Kunitz' mouth when he said "Francines," a heaviness and smugness and self-assurance in his laugh, that turned Haig's frustration, doubt and fear into abrupt rage.

"I won't," he said.

"What? Don't be foolish."

"No. I won't." Haig hunted for words. "Is everything a mask?" he asked almost desperately. "You say that Francine was lying to me, that she gave me a drug that might have killed me, so that the SSP could get the doll. Very well. Perhaps she was lying. What about you, then?

"How can I tell? How do I know you didn't arrange this proof?" He gestured around the cave at the ladder, the flower pots, the tarpulin. "It wouldn't be difficult. If Francine was lying, if there's nothing but masks around me—how about you?"

He turned and walked away. His motions were wavering and unsteady. At the door of the cave he hesitated. Then he went on down the path.

Kunitz looked after him, frowning and scratching the hair on his chest. He spat the reddish saliva of Betla nut chewing.

on the floor. "They must capture him," he said.

X

DON went back to the cave later that day. He was in a miserable state of confusion and doubt. Kunitz' face alternated in his mind with Francine's, and both were slyly mocking. Who was lying? Why? If he could only be sure!

He looked at the flower pots, the tarpulins, the ladder. He closed his eyes, hoping for a flash of awareness, or something which would say, "No, that's not it." If he had been here before, when he was drugged, would he not remember it? For a second it seemed to him that he did remember . . . something . . . and then it was gone and Francine's gay light voice was echoing once more in his ears. He looked at the tarpulins. They were only crumpled cloth, and he could not say whether they had ever been the wise sphinx.

He turned to go. There was no point in staying any longer. He halted. Someone was singing outside the cave.

It was a woman's voice, a rather low contralto, and the melody it sang, Don thought, seemed to have in it the sound of water flowing and the lapping of waves. There were words he could not understand — he thought they were words of some old earth language—and then more of the flowing, rippling melody. It sounded old, and yet fresh, as if it might have come out of the childhood of a world.

Who could be singing? Few people sang nowadays, and when they did it was not music like that, but the glittering artificial trills that they heard over the tri-di.

The voice halted for a moment, almost as if the singer were waiting for an answer. Then it went on, in the archaic language, "*Frau Sonne . . . den Helden . . . das Gold . . . gabe . . .*" Haig could make out a word distinctly now and then. He had no idea what it meant, but he liked it and began to smile.

He stepped outside, still smiling. There was no one. Or—wait, yes. There was a woman, standing beside a white and yellow frangipani. She was wearing a soft white dress.

She leaned forward quickly when she saw him. Her body was stiff with hope and doubt. She sang the plashing syllables again; they were a river in the sunlight. She looked at him and waited. Don gave a silly, nervous, apologetic cough.

Her face cleared. Her body lost at once its tension and its hopefulness. She said, "Why, it's the man who has Vulcan's doll!"

Haig was startled. He said, "How did you know that?"

"Why, I suppose everybody knows it," she said, laughing. "I was in the bar, you know, when you showed it to Henry. And after you left, he told all of us about it. I think he was impressed. Everybody on Fyon must know about your having the doll by now."

"Oh."

"Don't you know me?" she went on. "I'm the girl who sells curios at the counter in the bar.

For the first time, Haig really looked at her. She was small and slender, with very dark hair and a glowing brown skin. Her eyes were blue. Martian? he thought. No, the color of her eyes was not deep enough for that. There were gardenias in her hair.

"My name's Phyllis," she said. "And you're Haig."

It was certainly not a remarkable statement, but Don felt a glow of pleasure at the way she said it. "My first name's Don," he answered. "What was that you were singing when I came outside?"

"Oh, an old song. From a play with music." She did not look at him. "I like it, don't you?"

"Yes. I never heard anything like it. It sounded like water." He hesitated. "Do you know how to swim?"

They were walking along slowly as they talked, through the masses of flow-

ering trees. Phyllis put up a hand to push a flower-heavy branch aside. "Yes. I've learned since I came to Fyon. I never could learn weightless natation, somehow. I don't care, though. It never seemed to be much fun."

"It's too easy," Don agreed. "Like a lot of things. I suppose that's one of the reasons why Fyon isn't more popular—there aren't any weightless installations here."

"Fyon's a fine place," she said nodding. "Simple. I like it more all the time. But it's not quite real." A gardening robot passed them with a faint clanking. "I mean—like that. It's robots and machines."

"You can forget them if you try."

"I know."

THEY had reached the beach. The pink sands, the green-glinting opalescent water, lay in front of them. If Fyon, Don thought, was an artificial thing, a purely human creation, it was certainly a beautiful one. He said, "How would it be if we went swimming together? I don't know anyone else who swims."

Her small face lit up. "Oh, yes. I'd like that. As you say, hardly anybody does. But — excuse me — are you well enough? You looked so ill when I saw you with the man, the other day."

Don felt dizzy. He said, "What day was that?" His tongue felt like somebody else's tongue.

"The day before yesterday. It *was* you, wasn't it? It was on the path near the cave, and the man—I don't know who he was, I never saw him before—had his hand under your elbow helping you. You looked dreadfully white and sick."

Don walked a few steps toward the water and sank down on the sand—his knees would not sustain him. So Kunitz had been right.

Kunitz had been right. The drugging had been deliberate. Francine had certainly been a party to it. There had been a deliberate attempt to get the doll away from him. And the SSP. . . .

The girl had hurried after him. "Did I say something wrong?" she asked breathlessly. "Shall I call somebody? Is something wrong?"

Don shook his head . . . He knew he ought to start running. When the SSP was after you, you ran. You ran as long as you could, and in the end they caught you. There wasn't any time to lose. He ought to go find Kunitz.

Why didn't he? Was it because, even now, he didn't quite trust the older man? There was always something ambiguous about Kunitz, for all his friendliness. Was it a deep reluctance to begin the hateful, predetermined drama of running and pursuit? Or was it, more than any of these, the silly fact that he wanted — he very much wanted—to go swimming with this girl?

She was still bending above him anxiously, her hands tight on his arm. "I'm so sorry," she said. "Haven't you any medicine?"

"I'm all right." Don shook his head. "It's nothing, really." He felt a heady, half-drunken irresponsibility welling up in him. What did an hour or two matter? There was plenty of time to begin the desperate game of flight, fear, pursuit. He would decide what to do later. The SSP was powerful, but it shouldn't cheat him out of swimming with Phyllis. He had plenty of time.

He got to his feet. "It won't happen again," he said, smiling. "Really, it's all right. Do you have to get your suit before we can swim?"

SHE was looking at him with somewhat the expression she had worn when he first saw her—expectation confused with doubt. "But you — aren't you — why—" After a moment she frowned. "Could you let me see the doll? I was too far away, when you were in the bar. And I've heard a lot about the one in the museum. People who see it remember it."

Without a word he showed it to her. There was silence. Then Phyllis said

flatly, "You didn't find her by accident."

"No. I suppose not."

"But why—aren't you—I don't understand. The doll hasn't anything . . . Put her away, Don. It's enough. She makes me feel as if I'd been looking at the sun. I don't mean with my eyes, but with my mind."

He obeyed. "And now," she said, jumping up and shaking herself, "let's swim."

She swam like a fish, like an otter. She darted away from him, laughing, through the buoyant foam. He shook water from his eyes and then shot after her. He overtook her, grabbed, and was left empty-handed. She dived, wheeled, glancing like a pink arrow through the bright water, and came up behind him in a flurry of froth. For a moment they hung side by side. Then she was gone again, her polished shoulders gleaming in the sun.

When they were tired, they sat on the beach in the sand and rested. They could be silent with each other. There was no restless need to keep talking. Once Phyllis said, "I'd hate to have *her* shut up in a museum," and he answered, "I know."

The sun began to sink. The sky boiled up in waves of burning color. They watched quietly. There was a faint tinkle of sound, loud in the silence. Pits began to appear in the sand.

Phyllis gave a little cry. "An eye-beam! . . . Don, somebody's using an eye-beam on us!"

He was suddenly sober and cold and awake. The intoxication that had sustained him vanished. He saw his delay for what it was—folly, recklessness, an egotistical stupidity. Do-nothing heroics! He felt the sting of self-contempt and guilt. Worst of all, he might have involved this girl.

He looked at her. Her face was white, but her mouth was faintly smiling. Even in his agitation, he was surprised at her.

He said, "You've got to go, Phyllis. You've got to get away from me." His voice came out low and harsh.

"Why? What do you mean?"

"Because I — it's not safe for you. There may be trouble. I'm sorry. That eye-beam — it means the SSP is after me."

Her face had grown radiant. "The SSP!" she cried. "I knew it! Then you *are* one of us!"

XI

"WHY didn't you answer my signal?" the girl went on. "I thought—and then I wasn't sure. I was waiting for you."

Don said, "I'm not — whoever you thought I was. It's just that the SSP wants the doll. They've tried twice before to get it away from me. That day you saw me on the path I'd been drugged with alaphronein. I suppose the man you saw with me was somebody from the SSP. I was taken to the cave and given suggestions to make me give up the doll voluntarily."

"But—why don't they simply take it away from you? The SSP isn't restrained by considerations of legality." Her head lowered, she was letting handfuls of sand trickle through her fingers.

"There's a tie—a sort of force field—between me and it." He told her of the experiments Kunitz had made, and finished, "I suppose taking it from me by force would be dangerous. But I don't know what will happen now. That's why you've got to go away from here."

"What will you do, then, Don?" The glory of the sunset had faded into a still lavender twilight. He could smell the scent of the gardenia wreath she had replaced in her hair.

"Go to Kunitz, I guess. He said he'd help me."

"Kunitz? Do I know him?"

"You must. He's in the bar pretty often—buys phlomis in bottles. He's a stocky, heavy-set, middle-aged man."

"Oh. Yes, I know him. He reads a lot. Is he reliable, Don?"

"I suppose so. Look here, we mustn't stay here talking. It's dangerous. You've got to go."

She got to her knees obediently, and then sank back again. "You don't trust him, do you? There's something in your voice when you say his name. . . ."

"It doesn't matter whether I trust him or not," Don answered harshly. "He's the only chance I've got. It's true, I'm not too sure about him. But he seems to be my friend."

"You mustn't go to him, then," Phyllis replied quickly. "Don't you see, all you have to rely on now is your intuition and your wits? We had so much trouble with people being betrayed. He might be an agent of—of theirs."

There was a second's silence. Phyllis was hugging her knees. He could not be sure in the poor light, but he thought she was shivering. A faint breeze had come up.

Don said abruptly, "Of course I could simply give them the doll."

Phyllis drew in her breath. "No!" she cried. Then, more calmly, she said, "You're afraid I'll get into trouble, aren't you? Don't worry about it, Don—I'm already on their list of suspicious persons. Not that that's any distinction. I mean, half the people in the system must be by now.

"But you mustn't give the doll up to them. Doing that wouldn't help anyhow—they'd still send you to one of the disciplinary planetoids, just as a matter of principle. And they want the doll for some reason. You mustn't give it up. It's important, though I don't know how."

"I know it too," Haig admitted. "I don't suppose I could make myself let them have her. But what shall I do? Stay here until they try to get her again? And this time they wouldn't fail."

She let sand run through her fingers. It was almost dark. "Will you trust me?" she asked softly. "More than you trust Kunitz?"

"Yes." He was to regret other things, in the time he had left, but never that he had said that.

"Then . . . I think I could hide you in the hemisphere. It's out in the water, you know—an underwater sphere-shaped projected field that the technicians who made Fyon built. We used to meet there. I think it's safe.

"There used to be a land connection with the sphere, but one of the technicians destroyed it because he thought it was dangerous. The only access is by water now. We'll swim out when it's quite dark."

Don let out a long breath. Now that he had the prospect of a refuge, he realized under what strain he had been. "But what about you?" he asked in the next second, worried again. "Won't that be dangerous for you?"

He thought she shrugged. "It doesn't matter. I hate the SSP so much—! I'm under suspicion anyway, because of my sister. They may even know that I was a member of the Holy Fish."

DON looked at the sky. There was still a little light. Phyllis was right; they must wait until night had come, in case the eye-beam was still focused on them. Waiting might be dangerous, but it couldn't be helped. They had to wait.

"What was the Holy Fish?" he asked. "A religious cult?"

"It was supposed to be a cult. Actually, it was an organization of scientists and technicians who were opposed to the SSP. It was started when they were building Fyon, and realized what they could build if they were free to do it . . . So many things aren't permitted to scientists now.

"My sister was a member. After the SSP got her, I joined, though I wasn't really qualified. I'm not a scientist, you see."

"That song you were singing outside the cave—was that a signal of theirs?"

"Yes. I'm the only member left on Fyon. All the others were picked up, or had accidents. There never were very many of us. About a month ago I got a message—it was only one line, but it had the identification—telling me to meet a Fish at the cave. The cave was

our land meeting place. I thought you might be the one I was to meet."

"What happened to your sister?"

"She was sent to Phlegethon."

"The dream planet? Where they mine Dumortine?"

"They don't mine it," Phyllis answered. There was something very odd in her voice. "They hunt it with dogs. Don't you know about Dumortine?"

"Only that it's a drug which is supposed to induce rich and varied dreams in natural sleep. It's supposed to be harmless. It's taken through little cuts in the skin."

"It's not harmless," Phyllis answered. She gave a strangled little cough, as if what she felt was choking her. "People who use it get so they hate the day. But that's not what I meant. Do you know how they make Dumortine?"

"I thought they mined it."

"No. No. Phlegethon's radioactive——the soil, the air, everything. It's the headquarters of the SSP—well-shielded, of course, from any radioactivity. And it's also a penal planetoid.

"When a prison ship lands on Phlegethon, the prisoners are turned loose. They can't get away; there's no need for guards. But in order to survive, they have to breathe the air, they have to eat the products of the radio-active soil."

"It—kills them?" Don asked softly.

"Nothing so kind as that. Oh, sometimes—I—I think I can't bear it. Kyria—my sister—was so gentle and good. Gentle and brave and good. . . ."

AFTER a moment she controlled herself. "After the prisoners have been there for two or three years, the SSP hunts them. It's a regular part of the training of young officers. They do it with dogs.

"They always catch them. Sometimes it takes days, with the prisoner always running, but in the end they do. Then the prisoners are killed."

"But—the Dumortine?"

"It's found in crystals in their flesh. All through the musculature. It's formed as a result of the radioactivity. The running, with dogs after them, helps the drug to crystalize."

Her voice was hard and detached. In the dimness, Don reached out for her hand. He pressed the fingers. For a moment she was quiet. Then she pulled her hand away. "If you touch me, I'll—I can't help crying," she said. "And crying doesn't help. I've already cried too much.

"But you see what I meant about the SSP. I don't know why they want the doll. It looks like a small thing, not very important. But if they want it, you mustn't give it to them."

"Yes. I see. Look here, Phyllis, what do you think the SSP is trying to do? Or are they trying to do anything?"

"I don't know what you mean."

"Well . . . . Is there something behind all these things, some bigger plan? The repression of science, I mean, and the mutant study program, and the encouragement the SSP has given the various cults. Maybe even the fact that hardly anybody can read letters now, but only scan isotypes, would be an example of what I mean.

"Is there something behind these things? Or is it just expediency, with no bigger design at all, and the SSP acting only to retain and consolidate its own power?"

"I think there's a plan," Phyllis answered. "We used to discuss that point a lot in the Fish. One thing was very plain — not all scientists were equally harassed and annoyed. We had a physicist and an astronomer among our members—they'd joined because they hated the SSP repression of free scientific thought and exchange of information—but they were never bothered personally or their work interfered with.

"On the other hand, the biologists and zoologists were under constant attack. My sister was only an assistant in a lab. Her chief was doing some experiments on growth buds in salamander embryos, trying to see what organs he could make

develop from the buds, when they picked him up. Kyria tried to go on with his experiments, and a couple of months later they took her too.

"I do think there's a design. I mean, there's something in the life sciences, some possibility, perhaps, that the SSP doesn't want studied or understood."

It had grown quite dark. Phyllis got to her feet. "Stay close to me," she said. "I don't know how much an eye-beam can pick up, but try not to churn the water into froth when you swim, and don't show your teeth. They might be able to catch the beam of reflected light. When we get to the sphere, do exactly as I do. Follow me." She waded out into the surf.

XII

THERE is always something ghostly and disembodied about swimming at night. Don felt that he and Phyllis were suspended in a gulf in which floated a few remote stars. The water, just at blood heat, seemed scarcely more tangible than the bland air. A little tremor of nervous expectation ran over him.

Phyllis, beside him, was swimming with smooth, slow strokes. When they had gone a considerable distance from the shore, she paused and seemed to orient herself. Then she turned to the right.

"About here," she said finally. She was speaking with her lips close to his ear. "Don't swim any more—it disturbs the water. I have to look."

"What are you looking for?" Don queried in the same cautious tone.

"A ripple. It's very faint. I don't think one could find it even if he knew it was here, unless he'd seen it before."

She began to move back and forth very slowly, pausing often and waiting for the surface of the water to grow quiet. Don floated and watched her. At last she turned and came back to him.

"Fill your lungs," she said softly. "Follow me." She hestitated. "Don't be startled. The sphere, at the end, is a funny place."

She dived. He followed her arrowy body downward. At the bottom—probably nowhere on Fyon was the depth of water over twenty feet—he saw her very, very faintly in the greenish light as she seemed to stoop and tug at something in the sand.

There was an augmented pressure on his eardrums. She caught his hand as he stood up waveringly beside her, and led him forward. The darkness became pitchy. At the same time he was aware that the pressure in his ears had lifted.

"Don't breathe yet," she said faintly. The sound did not seem to carry well. "This is an in-between place."

They moved forward perhaps five steps in absolute darkness. Don's lungs were hurting. Phyllis withdrew her hand from his. He thought she fumbled and then pressed a stud—an impression certainly not based on sight, since he could see nothing. She took his hand again, and they walked forward one more step. Despite her warning, he could not repress a start of surprise.

They were standing in a brightly-lighted space filled with phantom images of themselves. Don and Phyllis, half a hundred times repeated, bowed, wavered, advanced, retreated, and slid forward again. Three-dimensional, apparently solid, they seemed to be everywhere, even overhead. The edges, the colors, of the phantoms were perhaps not so sharp as in life, and each spurious Don or Phyllis was surrounded with a dim prismatic aura that moved as it moved.

Don raised his hand, and all the other Dons imitated him. He turned to real-Phyllis, who was standing quietly beside him. "What is it?" he asked.

Phyllis shrugged. "I don't know." Her voice, though perfectly distinct, seemed now near, now in the distance, and now, unexpectedly, inside his head. "It wasn't like this at first. When we first met here, it was just a space. Then it gradually filled up—got popu-

lated, so to speak. Each time we came here, there were a few more figures. It was uncanny: The technicians weren't able to account for it.

"The sphere lets in oxygen, from that dissolved in the water outside, and of course it's made to be absolutely invisible and not let out any light. One of the theories they had about it was that it somehow trapped mental force, the way glass does solar radiation, and transformed it into the images. The technicians thought it might have other properties they weren't aware of when they built it, but they never got to experiment with it, though they wanted to.

"It's an odd place, certainly. We used to notice how hungry we were after we'd been here a few hours. But the technicians swore it was harmless, Don, and I think you'll be safe here for a time. Keep away from the metal bar in the sand that projects the sphere."

SHE pointed, and Don saw, under the feet of the phantoms, a metal bar, perhaps a meter long, that glowed like liquid, sluggish gold. "Keep away from that ... I'll come out with food tablets for you tomorrow. I'm sure to hear from the Fish messenger soon. Don't worry. We'll get you out as soon as we can." She turned. He saw, with a stab of dismay, that she was going. Ignoring the tapestry of meaningless motion around them, he caught her hand. "Phyllis . . . You can't run all these risks. Just to save my skin. It isn't fair."

She let him hold her fingers. "It isn't just for you—" she answered slowly—"though I would anyway. It's because the SSP mustn't have the doll. How I wish I knew what they want her for! Don, could I see her before I go?"

He was pleased, almost flattered, and yet he had never wanted anyone else to see his little golden wonder. Always before he had felt an inner reluctance. Carefully he balanced Vulcan's doll on the palm of his hand for her to see.

"Still weeping," Phyllis murmured. She seemed to have forgotten where she was. "Oh, beautiful. One could worship her, except that, somehow, it would be worshipping ourselves."

At last she raised her head from contemplation. "I've got to go," she said vaguely. She looked around her, still abstracted and remote. Her tone grew sharp. "Don! Look at the other Dons! Isn't she real? There's no image. What have you got in your hand?"

He looked. Dons and Phyllises surrounded them. Each Don held out his hand toward a Phyllis. Each of them balanced on his palm a lens of cold burning light.

"I don't understand," Phyllis was saying puzzledly. "Isn't she real? What is she made of, that the images show her as a burning lens?"

Don was as puzzled as the girl. "She's real, of course," he answered at last. "But perhaps she's only real in the sense that she's energy. Or a focus for it. How can we tell?"

"Yes." She pressed his hand. "I'll be back tomorrow with food, Don. Good night. Good luck."

IT WAS the middle of the afternoon when she came back. One moment Don was lying on the sand while his entourage of phantoms moved dimly about him, bleached to inconsequence by the daylight; the next the sphere was filled with Phyllis's images. He got to his feet.

"Hello," she said nervously. "You must be starving. I'm sorry I couldn't get here before. I've brought food tablets for you." She handed them to him.

"No, I'm not hungry. I think I've been asleep. But I'm glad you've come."

"Aren't there fewer images than there were?" she asked, looking. "Perhaps you've been eating them, and that's why you're not hungry." She gave a trembling laugh.

She was wearing dark blue "petals," very handsome with her dark eyes and skin. Don said, "Has something upset

you Phyllis dear?"

"Yes—no—I mean—" She did not seem to have noticed the little endearing word. "I'll have to tell you," she said slowly. "The messenger isn't going to come."

"Oh." Don realized how much he had been depending on the chance of escape represented by the mesenger. "How can you be sure?"

"I went to the cave today and waited. He didn't show up, but I thought 'tomorrow.' When I got back to my room in the hotel, a parcel had come for me. It was one of those little memorial coffins, you know what I mean. It wasn't from anybody I ever heard of, and then I understood. We'd agreed to use that as a signal for trouble in the Fish. It means the messenger isn't coming. The lining of the coffin was black, and that means bad trouble. Perhaps the messenger is dead."

Don said, "Perhaps later—"

"I don't think so." Phyllis shivered. "So then I remembered, I'd heard of a man once who was supposed to be friendly to the Holy Fish, though he wasn't in it. An important man. I thought he might be able to help us. I tried to contact him.

"I gave the operator his name and his identity number. She was gone a long time. When she came back, she said there was no such person. She said there never had been."

"But—how could that be?"

"I don't know. I heard once that sometimes they 'expunge' people, wipe out everything about them, just as if they had never lived. Maybe that's what happened to him.

"I didn't know what to do. Payne came in the bar at noon for a drink. He said two men had been in the restaurant asking questions about you. He seemed upset. He was afraid you were in trouble. He was sure the men were from the SSP.

"I didn't have any more Holy Fish contacts. I knew the SSP would find the sphere if once they started hunting you seriously. Don, I hope I did the right thing. As soon as I could get away from the bar, I went to see Kunitz."

Kunitz. So it had come to Kunitz at last, then, in spite of everything. What else could she have done?

"What did he say?" Don asked.

"Kunitz? He seemed very—upset. I mean, I felt that I'd brought him more of a problem than just helping you get away. Finally he said you were to wait in the sphere until it was dark, and then swim to that island they call Struve. It's quite a way, but I think you can make it. I think—Oh, I hope—Kunitz is reliable." Her eyes were anxious. "He said somebody would be waiting on the island to pick you up."

"And after that?"

"He's getting in touch with a friend who has a space needle. They're going to make connections with the captain of some bigger craft."

There was a silence. "I've helped you finely, haven't I, Don?" she said. She bit her lip. "I made you waste a day, here in the hemisphere, and had to go to Kunitz in the end, when my plans failed. The Holy Fish! A talking shop, an organization with no members. Yes, I've been a lot of help."

"Don't talk like that," he said urgently. "I got to be with you longer, to hear about your sister. I was glad you told me about her. And the time in the sphere hasn't been wasted. I've learned something here."

"How? What?" She tried to smile.

"How? I think it's true that the sphere accumulates mental force. There's a matrix here—a pool—it's hard for me to express . . . It's something that has accumulated from a lot of minds. There are things in it they didn't, as separate individuals, know. And being in the sphere, I've been in that pool.

"I'm sure of this, Phyllis, anyhow. Something enormous is on the verge of happening. People everywhere—mankind, humanity, if you like the big words—is on the edge of a great change. The SSP doesn't want that change."

Her eyes widened and grew dark. Slowly she nodded. "Oh. Yes. So that's it. You're right. And the doll—?"

"I don't know." Neither of them spoke. The phantom Dons and Phyllises continued to wheel, turn, repeat, advance.

At last she sighed deeply. "I've got to be getting back to the bar, Don. Good luck. I'll show you how to work the exit from the sphere before I go."

"Don't go," he pleaded, unaware that he was signing a certain kind of warrant with the words. "Stay here with me until it's time. Don't go."

"Kunitz said he wanted to speak to me . . . but it doesn't matter. Yes, Don, all right. I'll stay."

He took her in his arms. She received him sweetly. No one was watching to see how all the other Dons and Phyllises embraced.

AS THE light in the water outside faded, the bar in the sand shone with a brighter gold. Don's head was in Phyllis's lap, and she was laughing. They would be starting soon; the man who was to help Don would be waiting on Struve. Things were going to be all right. They must. Don felt an extraordinary quiet happiness. Suddenly Phyllis screamed.

His heart pounding horribly, Don started to his feet. The metallic bar in the sand flared up in intense yellowness. The posturing phantoms wheeled slowly and then abruptly vanished, like a flame blown out. For a second Don saw the sphere in its original unpopulated emptiness. Then it broke with a long shaking flash of light, and water and the dark-shirted men of the SSP poured in.

Had he always foreknown this moment? The inrush of darkened water, hopelessness, and the armed, anonymous men? He thrust Phyllis behind him; they had stun guns and sliver guns and blasters. He could kill one of them, he thought, if he could get close enough. He had no weapons, nothing. Then a great surge of water caught his love and whirled her away from him.

He swam after her wildly. One of the SSP men was already taking aim at her with a blaster. The noise of the bolt was a staccato thunder over the water, as if a great mouth were saying quickly and heavily, "Death death death."

Phyllis' body seemed to halt and buckle in the middle. For a moment she floated. Then the water around her grew opaque with blood.

Don remembered little after that. He was wild with pain and despair and hate. He must have attacked the man with the blaster; he had a fragmentary picture of Phyllis' murderer sagging back in the water between his hands. He hoped he had killed him, but he never found out for sure. Then somebody shot Don from behind with a stun gun turned to low power and paralyzed him. That was the end of that.

They put a harness-like arrangement of straps on him and towed him efficiently through the water to their craft. Don was paralyzed, but he was not unconscious. He could still see and hear. One of the guards said, "Where are we taking this fellow?" and another answered, "*You* ought to know. To Phlegethon."

XIII

AT FIRST it was not so bad on the ship. Don, as the paralysis from the stun gun bolt wore off, was in considerable physical distress. But, bad as the pain was, he welcomed it, for it was a refuge from thinking about Phyllis—from his grief for her, his sense of failure, and the corroding knowledge that he was guilty of her death. Then, as the pain began to ebb away, treacherously deserting him, his mind tried to save itself in an intense, compulsive, hyperesthetic attentiveness. His perceptions grew abnormally acute. Everything around him was perceived in minute detail, in a focus so sharp that it was etched.

They had been chained side by side to stanchions in a hold in the ship, twenty or thirty—twenty-seven, Don found, counting automatically in the darkness—prisoners, all bound for Phlegethon. Two of them were women, but they were not treated any differently from the rest.

Though it was dark in the hold—except when a guard, coming in twice a day to feed them, admitted light—it was never quiet. One prisoner sang constantly, in an unvaried monotone; two or three had hour-long fits of talking; others would be taken with spasms of high-pitched, spitting blasphemy or hysterical giggling. For all that, most of them were quiet, sunk in apathy or hopelessness. They slept standing, sagging against their fetters. After he had been in the darkness for an hour or so, Haig thought he could distinguish the beating of each individual heart.

The times when the guard opened the hold to feed the prisoners were times of great mental activity for Haig. He had to use the few moments of light to gather enough sense impressions, particularly visual ones, to last him through the next period of darkness. But this compulsive, passionate, sponge-like absorptiveness was not without its dangers. Once Don saw his own chained arms outstretched to take the bowl of mucilaginous porridge the guard was holding out to him, and the sight filled him with a terribly confused rage. How could his body, how dared it, go on existing when Phyllis was dead? Yet his heart beat automatically, his breathing had its usual rhythm, he ate the food the guard brought, and relieved himself. Even the lambda-shaped birthmark on the inside of his elbow was unchanged.

It was after the guard had fed them for the fourth time that somebody shouted from the darkness behind him, "Haig! Is that you up front? Haig!"

Don felt gratitude. He had begun, in the darkness, to count the seconds mentally and add them up into minutes, and the minutes into hours. Sometimes he would lose count, and begin to sweat with anxiety. This—anything—was better than that. He shouted, "Yes." He wanted to turn around to face the direction of the voice, but he was chained by a ring around his neck to the stanchion. He called, "Who are you?"

"Henry. From the bar in Baade."

Don's mouth came open in deliberate and exaggerated surprise. He wanted to be surprised; being surprised was a distraction from his thoughts. He shouted, "Why? What are you doing here?"

Just then the woman who laughed began to giggle. The noise grew more and more loud. Other prisoners began to join in, singing, shouting, shaking chains, gabbling prayers. All Don heard of Henry's answer was the words, ". . . so it's your fault."

"How?"

The bedlam abated a little. The woman who had laughed was sobbing. Henry called, loud and bitter, "Because you found the doll. How was I to know it was that important? I reported it as soon as the tourist with the miragems came back in the bar and told us. It's unfair. How was I to know my eye-beam wasn't focused right?"

Henry, then, had been the local spy and agent for the SSP. An inefficient agent; one who, in punishment for inefficiency, had been picked up and was now on his way to Phlegethon.

HENRY began to curse Haig. In a loud, unvarying voice he told all the things he would like to do to Haig himself, all the things he hoped would happen to him on Phlegethon. There was a pause. Then, in a slightly different voice, Henry said, "Have you still got the doll?"

Don could see no reason for not answering. "Yes."

"You won't have her long," Henry shouted spitefully. He laughed. After that he said no more to Haig.

But his words had wakened a great longing in Don. He wanted to see the

doll, his doll. She was still in his pocket. He wanted to see her weep.

He couldn't weep for Phyllis himself. Too much had happened, and she had meant too much to him, for such an easy release. But if he could see the doll weeping, see the little tears flowing down the cheeks of his golden wonder, it would be as if Phyllis were being wept for. He would feel that someone, somewhere, knew about the light, bright life and its arbitrary ending, and was sorry. Marking the sparrow's fall? It was foolish. But—yes.

He strained against his chains and tried to reach his pocket. It was impossible. He had been chained with his hands high in front of him, with just enough slack that he could reach his mouth to feed himself. Vulcan's doll was as much out of his reach as if she had been left behind on Fyon. But now that he was thinking of the doll again, he could feel her, faintly warm, in his pocket. There was a remote comfort in it.

The guard came into the stinking hold eight times with food before the ship began to decelerate. The deceleration was hard on the prisoners, who had no protection against it except that offered by their chains. By the time the ship finally landed on Phlegethon, they were all sick and besmeared with their own filth.

The hold was opened wide. One by one the prisoners were unchained, passed through a great jet of water, and led up into the light. At the top of the ramp a guard with a stun gun checked off names against an invoice in his hand.

He read the name and number, another guard checked him, and then the first guard would give the seemingly invariable verdict: Outside. "Outside" must mean out onto the radioactive surface of Phlegethon, Don thought.

Outside . . . outside . . . outside. Then Don, dripping and blinking weakly in the unaccustomed light, was brought up. The guard consulted his list.

"Haig, Don. P 4390 Ter. Out—wait a minute. No, this fellow goes upstairs. All the way. To Mulciber."

"He certainly doesn't look it," the guard who was waiting with the prod bolt said.

"I know, but that's what's on the list. Look here, you'd better put him in a cell and make him clean himself. He still stinks. And there's no telling how long Mulciber will wait before seeing him."

Don was led along a narrow angling corridor. He stumbled from weakness, and he still dripped. Behind him he could hear the guard with the invoice saying monotonously, "Outside . . . outside. . . ."

THEY left the ship, went down a ramp, and entered a covered passage. Don caught a short glimpse of a clouded, smoky sky. Then they were in another corridor, one with rough concrete walls.

They stopped before a door with closely set bars. The guard unlocked it and fiddled with some sort of watch disk. The door swung open. The guard gave Don a push that sent him staggering into the cell.

"Wash yourself, fellow," he said through the bars. "Do a nice, thorough job. If you don't we might have to correct you a bit."

Left alone, Don looked around him. The cell was tiny, with a bunk suspended from one side. A floor sink against the other wall must be where the guard had meant for him to wash himself.

Don undressed. He bathed thoroughly and rinsed out his filthy clothes. When he was quite clean, not before, he looked at Vulcan's doll.

She was still weeping. The little, perfect tears were still flowing down the little face. Was she weeping for Phyllis? No, not really. But for an instant, a second, it seemed to him that he saw a new tenderness in the little face.

The reality of the impression didn't matter. His heart, that had been so over-burdened and wild with grief, was

eased a little. Still naked, holding Vulcan's weeping doll in his hand, he lay down on the bunk and slept.

When he woke, something was different. He lay on the hard bunk and looked around the cell, trying to realize what it was. The cell had not changed; neither had the doll; and yet something was different. The difference, the change, was in himself.

He got up and put on his half-dry clothing. He sat down on the bunk again.

The change was in how he felt about Phyllis's death.

Phyllis was dead. For all his rebellion, his fury, his bitterness, and his desperate unbelief—that was the fact, and nothing could change it. Whatever happened to him, whether he lived or died, he had lost Phyllis. Phyllis was dead.

She was dead, and the SSP had killed her. (For a moment he thought, "If I hadn't asked her to stay with me . . ." and heard himself groan in anguish.) The SSP had killed her indifferently, fortuitously, as they had killed others. But now that she was dead, her death had become a link in the chain.

It was a chain, he thought, that was still forging, and neither of its ends was visible. It went back into the past, it stretched onward into the future. One of its links was a struggle, and this struggle was still before him. Don Haig —he bit his lips—Don Haig must struggle with the SSP.

HE WAITED in the cell for perhaps half a day. Nobody came to feed him, but he could get all the water he wanted from the tap in the cell. At last two guards, one with a prod-bolt, appeared. They opened the door of his cell.

"He's to have hand fetters," the senior officer said. He sniffed at Don. "He's cleaned himself, I see. These cerebrotonic types usually do. Still, we might . . . Where's he going?"

"Topside, I think," said the other. He consulted a memorandum. "Yes, all the way. Mulciber."

"Oh. Then of course we can't. Too bad. Put the cuffs on him, Bates," Don's wrists were chained together with a heavy chain. "Come along, you," the officer said to him.

They went out into the corridor. For half a city block they walked along it; then they entered a reversed-grav shaft and went floating up.

The guard with the prod-bolt landed them at the ninth level. Don saw, through a window iris which had been left open, that it had grown dark outside. The smoky sky had turned a charcoal black. At the horizon it was striped by ascending lines of lurid red. Phlegethon's land masses, Don had heard, were ringed with volcanos that smoked continually.

Twice more Don and his guards entered reversed-grav shafts and ascended. He thought, from the reduced pressure in his ear drums, that they must have gone quite high. Then they halted before a door that had sentinels on either side.

"Detention reporting to administration," the guard with the prod-bolt said, saluting formally. "I am conveying a prisoner, Haig, Don, P 4390 Ter, to you for interrogation. Please sign." He held out a slip to the senior guard on the other side of the door.

"Administration taking possession of prisoner Haig, Don, P 4390 Ter," the administration man answered. He wrote his name on the requisition and added his thumb print. "Where's he for?"

"All the way up. M."

"Oh. Come along, Haig." A guard fell in on either side of Don. Once more they advanced along corridors.

His new custodians, Don saw, were men of a different stamp from those in Detention. The easy cruelty of the other men's faces had been replaced by a hawk-like watchfulness. All emotion was under control, even sadism. These men would kill or punish only when reason or self-interest motivated them.

The corridors, the ascents, seemed interminable. More than once Don stumbled with fatigue. The metal between his hands was oppressively heavy. They passed room after room filled with soft-clicking tabulators. Once they went by a huge arched hall which contained nothing but cybernetic installations. Administration personnel — always armed, conspicuous in their exactly-tailored dark blue uniforms—seemed no larger than ants as they moved among the machines, tending them.

The corridors began to grow more luxurious. The hard floor surface was replaced by a thick, mossy texture which Don, in his fatigue, found walking on difficult. The hard overhead lighting gave way to wall brackets with a soft rosy glow. At last Don and his guards stopped before a perfectly plain door of dark, polished wood. There were two guards on either side of it.

"Presenting Haig, Don, P 4390 Ter," one of Don's custodians said, saluting respectfully. "He's to see the chief."

"Oh. Yes." The polished door slid back. "Take him on in."

Don, with an Administration man on either side of him, walked into a very large room. One whole side of the room, from floor to ceiling, was glass. A desk and two chairs were dwarfed in it.

A man came around the desk toward them. Don's two guards saluted him reverentially. "The prisoner, sir," one of them said in a subdued voice.

This was Mulciber, the dreaded, powerful head of the SSP. Don looked at him with curiosity, and then with wild unbelief. He had seen Mulciber before. He recognized him.

Mulciber was Bendel, the man who had come to Fyon with the robot-circus. Don could not be mistaken in the sagging, large-framed body, the pitted face, the light eyes. Mulciber—Mulciber was the man with hair on his tongue.

XIV

THE guards had withdrawn to a discreet distance. "How do you do, Mr. Haig?" Mulciber said in Bendel's muffled voice. Don perceived, almost with astonishment, how much charm the man had.

"I see you have recognized me. Yes, I am Bendel, whom you saw with the circus on Fyon. I do not usually mingle myself so personally in the affairs of our organization, but the fact is I had a great curiosity to see what sort of catspaw my old antagonist had selected. Perhaps you do not realize it, Mr. Haig, but you have been nothing but a catspaw from the day you found the doll on the beach."

Don said nothing. Mulciber indicated one of the chairs. "Won't you sit down, Mr. Haig? We might as well discuss your coming to Phlegethon at our ease."

Don was faint from hunger, but it seemed to him that he could not afford to surrender the slight moral advantage standing up would give him. "No, thank you," he said.

"I'll have to put you in a foot lock, then." Mulciber pressed a switch on his desk. Don felt an invisible weight close on his ankles. "That will be enough, I think," Mulciber said.

The head of the SSP seated himself in one of the chairs. For a moment he looked at Don in silence. Then he said, "I have had you brought here so I might ask you to give me the doll."

Here it was again—the same simplicity Mulciber, in his role of Bendel, had displayed. "Why do you want her?" Don asked.

"Because she is dangerous, even without the wings I made for her."

"Dangerous?" Don managed a laugh. "Ever since I found her, someone has been telling me she is dangerous. How? Why?"

"She is dangerous because she is a focus for a certain kind of mental force." Mulciber coughed and cleared his throat. "Do you remember the story I told you when we met on Fyon?" he asked slowly. "The fact is, much of that story was true. It is true, for example,

that there is a corrosive kind of life in the doll; I wonder that you have been in contact with her without harm for so long. And it is also true that our solar system, in its 200,000,000 year circuit around the galaxy, has reached a point in space where injurious radiations abound. But these radiations are dangerous, not to just one or two individuals, but to the future of all human life."

"They are emitted, apparently, by the same suns that send out radio impulses. They are radiations which have a profound effect on human germ cells in the meiotic stage. Twenty years ago, when we started Program X, we thought we were on the trail of something; now we are sure of it. Program X has been much criticized, I know—" for a moment Mulciber's face changed, and Don saw the eagle strength in it. "Sometimes we have had to behave arbitrarily and cruelly. But we have been acting, throughout, to save mankind from a great if unrecognized danger: the danger of uncontrolled evolutionary change."

Don made a gesture. "You guessed it?" Mulciber asked. Once more he was smiling. "But I do not think, Mr. Haig, you can have any idea how great the peril is."

"Peril? No, I don't suppose I do. I don't see why change should be perilous."

MULCIBER sighed, and then smiled. "At least half of mankind," he observed, "still makes an unconscious equation in its thinking, and assumes that change—any sort of change—is identical with progress. It is not so; and any student of the course of evolutionary history on Terra could tell you of change which has been regressive, change which has led to an ultimately fatal specialization, change which has been over-adaptation to an ecological niche which no longer existed, or did not yet exist. If you could see some of the mutants—the abortive wings, flaccid, tumor-like lumps—the tentacles growing out of the wrists, boneless and rubbery—or even the extra, misplaced eyes. . . . .

"Let me ask you one question, Mr. Haig. In your opinion, has mankind fully realized, as yet, the possibilities within its present stage of evolutionary development?"

Don thought of the baffled, baffling world in which he found himself. "No, I don't think so," he answered. "We don't use all we have."

Mulciber seemed pleased with the answer. "You are intelligent," he said. "How *could* we have realized our possibilities? They have not been in existence long enough. We have not had time.

"Now, about the doll. Even if she had never been created, some mutation would undoubtedly take place. There would not be so much of it that it could not be controlled. But as long as the doll, even without her wings—"

"What did you mean by 'the wings I made for her'?" Don interrupted him.

"What I said." Mulciber was unruffled. "She was designed to have wings. I made the wings she was designed to wear.

"As long as the doll exists, there is the certainty that an enormous amount of reradiation from the generalized human stock will occur. Her mental force, added to the impingement of purely physical energies, will cause the most radical mutation to take place. Its speed will be catastrophic. Its final goal no man can foresee. Humanity will have gone forward into the dark.

"I don't pretend that everything the SSP has done has been well done, but we have set ourselves against that. With all its imperfections and faults, mankind has achieved great things in the past. If there is time enough, its future will hold yet greater things. We want those achievements to be made. We don't want mankind to plunge over the cliff into the dark."

He halted. He said, "Mr. Haig, will you give me the doll?"

Don could not speak. His whole mental orientation was gone. If Mulciber was telling the truth . . . if the SSP, for all its excesses, was basically benevolent . . . then . . . then . . . (A remnant of caution said, "What did you expect him to tell you? That he is the head of an organization of power addicts, sadists, murderers?")

And it could be true. Everything that had happened to him could be explained —couldn't it?—in Mulciber's terms. Once Mulciber's premise was granted—that the evolutionary changes awaiting humanity were destructive and dangerous —everything fell into place. The SSP, on Mulciber's own account, had been arbitrary and cruel sometimes, but those excesses could be justified. Omelets necessarily involve the breaking of eggs.

Don tried to remember facts, to weigh, analyze, compare. The story Kunitz had told him—Francine—Phyllis—his own experience. It was no use. His mind was whirling. It was like trying to catch minnows barehanded. His world was upside down. Or was he standing on his head?

In the end, he gave up the attempt and stood silent. The thought of Phyllis came into his mind unbidden, of Phyllis as he had last seen her in the twilight, sinking down through water that was red with her own blood. Phyllis had said, "They mustn't have the doll."

He understood suddenly that this was the struggle he had foreseen. This was the linking moment. Don said, "No. I won't give you the doll."

MULCIBER was unperturbed. "Don't be hasty, Mr. Haig," he said. "This matter is much too important for you to decide quickly." He went over to the windowed side of the room and stood looking out at the sky, his hands clasped behind him. Without turning, he said, "I may tell you, Mr. Haig, that I believe we can take the doll from you in the event of your refusal. I am not quite sure. In any case, I should prefer to have your consent."

He turned from the window. "I have one more argument, Mr. Haig," he said slowly. "It can be compressed into one word, a word which has grown unfamiliar. War."

"War?" Don echoed. The word made no impression. "I don't understand."

"The word has almost dropped from our vocabularies," Mulciber observed. Once more he smiled. "For three hundred years there has been no war. And yet it was once one of the most dreaded words.

"It is the fashion among you intellectuals, you readers, to sneer at the direct suggestion broadcasts, the synthetic or arranged childhoods, all the paraphernalia of the new psychology. You overlook the role all this has played in freeing us from the scourge of scourges. For three hundred years, there has been no war.

"In those three hundred years of peace mankind, that once was divided into a dozen rivulets, has flowed into a mighty torrent. In our unity, we have colonized the planets. We have sent an expedition to Proxima. We may soon have the deep space drive.

"Yet that work can be undone. It was hard enough for us to keep the peace when we knew that all men were brothers. Even in our biological unity, it was hard. What will become of us when *Homo alatus* wars with *Homo intelligens*, and *Homo thoraceus*, tough armored, with stout, stubby legs, battles with both? There will be war then, the old scourge more horrible. There will be nothing but, never anything but, war.

"In the end, the great, torrential river of human unity will have vanished. There will be a hundred jarring currents. They will lose themselves in swamps, be swallowed in sand or in cracked, stinking mud.

"Mr. Haig. Once more I ask you. Give me the doll."

This time Don answered without hesitation, almost without thought. "You say you care for humanity. You're lying.

There's nothing in you but hatred for it. You're full of hate and jealousy. No. I won't give you the doll."

Mulciber bowed his head in silence. Don thought his pitted skin had turned white. He went to his desk and said a few low words into a communication grill.

"You don't need to look so apprehensive, Haig," he said when he had finished with the message. He looked at Don and smiled mockingly. His eyes were bright. "We shan't kill you to take the doll away from you. The fact is, the tie between you and it has grown so strong by now that I have no idea what the result of severing it forcibly would be. And we shan't coerce or correct you, either, at least at present. A consent obtained by force would not destroy the field or weaken the tie."

THERE was a wait. Mulciber, at his desk, was printing something with isotype blocks. Don stood with sagging shoulders, looking at the length of chain between his hands.

He would resist, of course. (For a moment he thought hysterically: Who is Don Haig? What is he? What has he got to resist with?) He would resist the attempt to take Vulcan's doll from him. What would happen if the resistance succeeded—or failed—no, he wasn't going to think about that.

A buzzer sounded. Mulciber, without raising his head, pressed a stud. The outer door of the office opened. Two men came in.

They were dressed in the gray smocks of laboratory technicians. Behind them they were pulling an apparatus—Don had no idea what its proper name might be—mounted on runners, like a sled.

They came over the carpet noiselessly and stopped in front of Mulciber. Their faces were as rigid as masks, and as impersonal. Yet it seemed to Haig that a spark of something—independence, perhaps—lurked in them. It was a quality he had seen in no other SSP face.

Mulciber, hardly looking up, said in his muffled voice, "You know what you are supposed to do. I trust you will succeed in it."

"Yes. Sir." The last word seemed to come out with a slight jerk; the technician who was speaking hestitated. "Have you got a foot lock on him? Sir." Again the word of deference had been spoken with a faint reluctance: was it possible that the scientists within the SSP, for all their subservience to the organization's aims, had managed to retain some autonomy?

"Yes, he's in partial stasis," Mulciber said.

"Please remove it. It would interfere with our meter readings."

Mulciber motioned to the blue-suited guards to come nearer. He touched a switch. Don felt the weight lift from around his feet.

One of the technicians stooped and adjusted a loop of wire around Don's right ankle. The other was busy putting a similar loop around his opposite upper arm, just above the red birthmark. They tightened clips and checked connections. Then they went back to their machine.

The taller technician said, "Seventy-six," in a low voice.

"Check. To three."

"And three."

The murmured responses continued. Don waited in anguished silence. His whole being was concentrated on the doll in his pocket. But he felt nothing at all.

At last the shorter technician frowned. "We're not getting it," he observed. He drew a note pad from the pocket and consulted it. At last he said, "Let's try the upper sequence, what do you say?"

"Sure. You never can tell."

Once more there came the murmur of reading and response. Mulciber had deserted his paper work and was watching silently.

Suddenly Don felt an almost unbearable wrench.

HE did not know what had happened. It was as if a part of his body, hith-

erto invisible and unrecognized, were being violently subtracted from him. What was it? Had he an invisible arm, a hand he didn't know about? He felt a horrified astonishment.

At the same time, the attack was more than physical. Don — Don Haig — his memories, his feelings, his personality, all that he meant when he said "I"—was under assault. Something vital, something whose loss would be irreparable, was being taken from him.

He had not been able to repress a groan. Now the technicians looked at each other and nodded. "Getting it," the taller said softly. "Let's run through those combinations again."

Don was panting. He had broken into a sweat. He licked his lips. Once more there came the wrench. It was worse than before.

He was tempted for a moment to stop resisting. He wanted to cooperate with the technicians, to help them sever the agonizing, straining tie. But he wouldn't, couldn't, wouldn't. He wouldn't do it. He mustn't let them have the doll.

The taller man was bending over, reading a dial. "Sixty-eight," he said. He made a motion with his fingers. "Let's have a lot more power."

This time the wrench was quite unbearable. Don knew that he would begin to shriek in a moment. He had never thought he could resist so much.

"Start dissipating," the short man said. "Two plus."

"Two *minus*. Right."

There was a puff of light like a round rainbow from the machine. "Harmless," the short man said absently to Mulciber. "Doesn't mean anything. Now!"

There was a final, imperious wrench, a wrench that appeared to slide off into nothingness and light. Don felt a great wind of force beside him. It seemed to flatten him. He staggered back from it.

"Hold him up," Mulciber said in his muffled voice to one of the guards.

The tall technician turned a switch. The machine stopped its faint humming. The room was perfectly still.

The technician took a glove with a long cuff from his smock. He drew it on over his hand. He glanced at a dial. Then, with an air of residual caution, he approached Don.

The guards had moved in to hold Haig by either shoulder. The restraint was hardly necessary: Haig was almost unconscious. The technician slipped his hand into Don's pocket. And nothing happened. Nothing at all.

Mulciber had risen from his desk and was standing erect. There was no expression on his face, but his eyes seemed to burn. The technician moved over the carpet toward him. He reached across the desk and presented the doll to Mulciber with a slight bow.

Mulciber accepted the little weeping image in silence. The other technician had been busy taking the wire loops from Don's ankle and arm. They left the room, pulling the machine on runners after them.

Mulciber was balancing the doll on the palm of his hand. At last he said, "The tie is severed, Mr. Haig." Dimly Don perceived how much Mulciber hated him. "And the doll—the doll is mine."

XV

MULCIBER was talking to the doll. Don could hear his voice, a loving, muted murmur, remotely. It seemed to reach him through a whitish drizzle of semiconsciousness. Mulciber was saying, "Beautiful . . . beautiful. . . ." over and over again.

Don made a great effort and turned his head. The big room was empty except for him and Mulciber. The guards were gone, though he had no recollection of Mulciber's dismissing them. He and Don were alone.

The chains between Don's wrists must have made a faint noise; Mulciber raised his head and looked at him. The unstable brilliance of his eyes grew fixed. "I see you've come back to yourself, Haig," he said. "I had them leave you here because . . . I wanted you to see. . . ."

His voice trailed away. He had forgotten Don even while he was addressing him. Now his eyes returned to the doll. Once more he began speaking to her in the intimate, tender, lover's voice.

"Little beauty, little darling, little wonder. You're mine now. Beautiful, and mine. By the best of rights, I think. Haven't I earned you? Oh, yes.

"And I have another right to you. I helped make you. Have you forgotten? Don't be forgetful, little beauty. Part of your beauty you owe to these hands." He held out shaking fingers in front of him.

"Even then you were dangerous, weren't you? Dangerous even in the making." Mulciber laughed softly and indulgently. "I owe the stigmata that will always mark me to you. There's an eating, corrosive life in my darling. It's to you I owe my body, my tongue, my hands."

Don listened. There was nothing else he could do. His feet had been placed back in partial stasis, and there were the chains on his hands. For the moment he felt not so much hate and bitterness, as incredulity. The doll was his, not Mulciber's. Even after the violence of the severing of the tie between them, he could not believe that he was not still linked to her. And yet Mulciber stood there holding her, and nothing happened. She was Mulciber's. Don had failed. Phyllis was dead. Mulciber had the doll. Don had failed in everything.

"Little wonder, little darling, little beauty. If you knew how much you have cost me! Perhaps that's why you weep."

His tone roughened and grew more deep. "Oh, yes. Darling, I had to walk through blood to get you. Do you know how many people have died so that I could stand here on top of the Mountain, holding you between my fingers? Blood enough, blood enough. And now you, you little weeping wonder—why, you too have got to die."

How do you kill a doll? Don wondered. A doll alive with the strange half-life Vulcan was master of? But Mulciber no doubt could find a way, as he had found a way to sever the tie between Don and the doll.

"Oh, yes. You'll have to go," Mulciber continued. "The wings—" his hand moved toward his breast pocket— "the wings I will keep. For that you must blame the vanity of the artificer. I'm proud of them. And I believe they're harmless. But you'll have to die."

His voice had lost the lover-like note and become almost casual. It seemed to hold a faint relish. He couldn't, Don thought, be greatly concerned for long about killing anything, even Vulcan's doll. As the head of the SSP, he had grown too used to disposing casually of life. That was how Phyllis had died. Casually.

So many others, too: but they didn't matter. It was Phyllis Don cared about. Phyllis. At the name, something blazed up in him.

All that had happened—his loss, his misery, his defeat—seemed to cohere, to focus into a deadly, uncontrollable hate. It burned through his body like fire, the stronger because he knew its impotence. He had never felt anything in his life like this surge of hatred. He was blinded by it.

And in that same moment Vulcan's doll flared up with a sudden, blinding, incandescent light.

MULCIBER gave a cry. He dropped the doll. He staggered back from it, his hands over his eyes.

Before he acted, Don knew his own next action. It was something slaves and the helpless have always known. He raised his manacled hands high above him. With all his strength he brought the length of heavy, flexible metal down on Mulciber's head.

Mulciber fell without a cry. The chain had gone almost through his skull. He was dead before he had time to groan.

The room, now that he had stopped talking, was extremely quiet. Don could hear the beating of his own heart. He looked at the mess on the chain between

his handcuffs, and at the greater mess on the floor. There were even pieces of hair in it. The sight made him feel a compulsive wish to laugh. He dared not yield to it. He knew that once he started he would never be able to stop.

Mulciber had dropped the doll close enough that Don, despite the foot lock, could reach her. He bent over and picked her up. She was unhurt.

She was still weeping, still beautiful. Don looked at her without emotion. He had experienced too much in the last few minutes to have anything left for her. He put her carefully away in his pocket. He bent over again and began to search Mulciber's body for the wings.

They were not in the breast pocket, where he had expected to find them. He located them at last in a transparent packet glued flat with siskin tape to Mulciber's lean chest.

They were faintly pinkish, each tiny feather perfect and distinct. In the bright light from the ceiling they seemed to be stirring a little, moving with Vulcan's odd half-life. They were, Don supposed, almost as wonderful as the doll itself.

He put the wings in his other pocket. And now, what was there left for him to do? He had finished. There was no other possible task.

For the first time, though as from a distance, a realization of the hopelessness of his position came to him. He was alone, unarmed, helpless, in the very heart of the SSP's great hostile citadel. His hands were chained together. He could not even move his feet.

It didn't seem to matter. He was at the end of his strength; exhaustion had dazed him. When he turned his head, the room swam around him giddily. He could not grasp—he did not want to grasp—the measure of his helplessness. It was too much, too much.

He must have slept briefly, the quick sleep of profound exhaustion. What woke him was a noise outside the door.

The guards, he thought dimly—it must be the guards who are getting worried about Mulciber. They're beginning to wonder what's happened to him.

At the thought, his heart began to pound. He resented it. What was the good of fright now, at this point of utter helplessness? All they had to do was to open the door, come in, and take him. He wished he could have stayed buried in his exhausted sleep.

He looked around the room, shivering and blinking. Nothing had changed. The room was still brightly lighted from its glowing ceiling, Mulciber still lay sprawled where he had fallen after the blow. There was still the bloody mess on the floor.

And yet, wasn't there a difference? Something had been moved, was out of place. No, had been added, rather. Something. . . The noise at the door was repeated. Now Don saw what the difference was.

There was a gigantic shadow on the floor.

IT LAY over his feet and extended across the floor and half-way up the wall opposite, a jet-black, tremendous shadow. Where was it coming from? What objects in the room could be casting it?

He must be imagining it. . . No, it was too real for that. The blackness of the shadow seemed almost to have substance, to be tangible. And now, as he looked at it, feeling wonder mix with the first faint prickling of an emotion which he would not identify to himself, he saw what the shadow was: It was the shadow of a gigantic man with a blacksmith's hammer in his upraised hand.

There was a discreet knock at the door. The guards had decided to take a chance on angering Mulciber by knocking. They'd be coming in in a minute or so—

But the shadow. What could be casting it? In the empty room there was nothing which could. . . There was no such man. . . .

The knock was repeated, this time more loudly. Don scarcely noticed it. He

was leaning forward, looking at the shadow anxiously. He knew now what the emotion was he had felt a moment before. It was hope.

The shadow was motionless. But Don felt that it was sinking into the floor, extending backward away from him, penetrating. And now it was extending out through the wall of the room into space. A breath seemed to touch him and withdraw. . . He knew what it had meant when the weight around his ankles lifted. Now he could move his feet.

The knocking at the door had grown furious. There were loud voices, shouting. The handle turned. A pause, and then a thud. A heavy impact, and another thud.

Don hesitated no longer. Vulcan's shadow on the wall before him was like an open gate. Wherever it led to, it meant escape. He walked into it.

XVI

DON sat up, blinking sleepily. He looked around him, and yawned. It was not long after dawn; the sky was still red. The sand was warm under him, but the air had a morning chill.

He must have been very drunk last night. He had a confused recollection of restless sleep and wild, restless, troubled dreams. What had he been drinking? Who on Fyon would have given him that much to drink? It was a wonder he wasn't sick.

He got to his feet and tried to stretch. Something was wrong; he couldn't move freely. His hands—how strange. There was a chain between his hands.

For a moment he stood quite still, a little hunched over, thinking. Yes, he remembered. His mind raced over all that had happened, from the time he had found the doll half-buried in the pink sand of the beach to when he had killed Mulciber. That had been real, too, as real as anything; the blood and grayish clots on his chain bore eloquent witness to the death. And after that. . . .

He had killed Mulciber; he had been alone and helpless in the heart of the SSP's citadel. He had walked into Vulcan's tremendous shadow. And now he was back on the beach at Fyon again.

What had happened in between? He shook his head, baffled. All that he had was an impression of swirling blackness. But in that blackness he felt that much time had passed.

He sat down on the sand again and took the doll from his pocket. She was as beautiful as ever. He looked at her a little sadly. Yes, she was beautiful still, but his no longer, not his in the old way. He felt alienated from her. Mulciber's forcible severing of the tie between them had changed things—changed him, at least. She was Vulcan's doll now.

But there was one thing he must do for her. It was something no other person had ever done—could, perhaps, have been able to do. Was the service an honor, a privilege? He did not know. But it had been reserved for Don Haig.

He took the doll in his left hand. With his right—his movements were a little awkward, because of the chain between his hands—he got out the packet he had taken from Mulciber. He opened it.

For a moment he sat marveling at the workmanship of the wings. If Mulciber had told the truth when he said he had made them, he must have been very nearly the equal in craftsmanship of the Vulcan who had made the doll. Moving carefully and delicately, Don picked up the wings. He held his breath so his hand might be steady. He fitted the wings on the roughened places on the back of the doll.

They adhered. Don, looking at her closely, could see no line of division, no sign that the wings had not always been there.

It was over. He had finished. The sky was the same, the water. Only the doll had changed. Or—now—but—

For a moment Don felt an oppressive and horrible sense of strain and tension. It was easier for him than for the others, because he was at the center, the

source. There were other reasons, also, why he should feel it less. Like an earthquake shock, the sense of some vast and present change began to spread outward. It was like ripples from a stone cast in a pool of molten glass.

IT TOUCHED all Fyon, and Payne, who was in the kitchen ladling a mess of dak-dak pods onto a platter, stopped in mid-motion. He gulped and swallowed. He couldn't get any air; his heart felt funny. He had the wild impression that it had begun to beat on the other side.

It reached earth, and the woman who had been looking with rapt concentration into her little "communion" mirror shuddered and then began laughing. She couldn't help it—the idea of the mirror was so ludicrous. She picked up the mirror and tossed it into the disposer. Still laughing, she watched it as it grew thinner and dissolved into a silvery mist. She pressed her hands to her temples lightly. The mirror? She smiled. Oh, she could do better than that.

It reached Venus, and the girl who was at breakfast with her husband said to him casually, "It's going to be a girl." She had just become pregnant. "And—do you know, Tal?—she's going to be quite a lot different from either of us."

It impinged on Mars, and Chou-Ettdra told his lab assistant to prepare the experiment with the lizards again, varying the temperature a little. "For," he said thoughtfully, "I think that this time we shall get some highly interesting results."

The impulse spread on out, a flexible knife-edge of change and shock, subtle and thin and quick. And everywhere human beings, each in his degree, some trivially, some profoundly, responded to it. The impulse spread on out.

At the center, the instant of impact had been a short one. Don, looking at the doll, saw, as he had known he would, that she had ceased to weep. The sadness and compassion had passed from her face like a withdrawing shadow, and now she wore a look of inexpressible triumph and delight.

For a moment she was quiet, poised on his fingers. For a moment he held Victory herself, helmed with power and radiant, on his fingers. Then she beat her wings together twice, as if in rapture at her completion. She seemed to laugh with delight. Don watched her breathlessly, expecting he did not know what new miracle. Her outlines blurred and wavered. Then she disappeared.

She was gone, she had left him. He turned his head from side to side, unbelieving. The sands were vacant. Everything was empty. She was nowhere.

He wanted to wail aloud in his confusion and his misery. But when he looked down, he saw that the fetters had fallen from his hands.

XVII

AFTER that, Don stayed on the beach. When he was thirsty, he walked inland to the little spring with the agate pebbles and drank sweet water. He was not hungry; he felt no need for food all the time he was on the beach. Sometimes he would walk into the surf and cleanse himself.

He sat in the sand and watched the sun coming up and the day going past and the sun setting. It went by before his eyes and meant nothing. He had lost much emotional blood.

He did not suffer; he was too remote from himself to be capable of suffering. But when the doll had finally left him, he had lost the effective motor force of his life. There was a hole where his will had been.

Early in his stay on the beach, he tried to rouse himself. The SSP, he felt certain, would make an attempt to recapture him; and Fyon would surely be the place where they would look first. But time passed and he did nothing. In the end, he made a hole in the sand and buried his fetters in it. The effort exhausted him, and after it he withdrew even more deeply from himself.

Nobody bothered him. Once a party

of tourists, talking and laughing, came down to the beach. They looked at him obliquely and nervously, and rather soon they went away. In the end it was Payne, out of all the people in Baade who knew him, who came to talk to him.

He came walking over the pink sand, his heavy shoes squelching a little. He was wearing his white restaurant apron. "Hello, Don," he said. He sat down beside him and cleared his throat. "The tourists said there was a man on the beach. I thought it might be you."

Don made no answer. Payne went on, "We all thought the SSP had picked you up. That can't have been right, though, because you're still on Fyon. Where have you been, anyway? The SSP never lets anybody go."

Payne stopped talking and looked at Haig closely. He gave a nervous laugh. "See here, Don, what's the matter with you?"

". . . . I'm tired."

"Yes, but. . . Hell, Don, you can't just stay here on the beach." His tone coaxed and argued. "There was some point to living like that when you were drinking all the time. I don't say I approved of it, of course. But it made a sort of sense. Now you're just sitting here in the sand and—hell, Haig, I know you're not drinking. What's the sense in it?"

Don hunched his shoulders. Payne said, "Did you know the SSP did pick up Henry? Came in the bar one day at noon and got him. And Phyllis, that girl that worked at the curio counter—she's disappeared. Everybody thinks there must have been some funny stuff going on in the bar."

Even that name meant nothing. Don felt no emotion. Payne was looking at him anxiously. "Why don't you come back to Baade and work for me?" he asked, after a pause. "It wasn't much of a job, but you got by. Better than living in the sand by yourself. And I get mighty tired of pitting dak-dak pods."

"No."

"Hell, don't just say 'no.' If you're sick, we'll send you to the hospital. You know, Don, Baade—Fyon—is changing. Somehow." Payne's face became shy and a little strange. "Well, I guess we're all . . . changing. You ought to come back. Are you sick? What's the matter with you?"

Don made an exhausting effort. "I'm all right," he answered. "It's just that I'm . . . bankrupt. Please go away."

Payne got to his feet. He did not seem angry, or even offended, only a little surprised. "I guess I know what you mean," he said. "I guess it could affect a person like that." He walked a few steps away and then turned.

"I'm sorry, Don," he said. "Maybe you'll get over it." Don was left alone on the beach.

NOBODY came after that, not even tourists. Sometimes Don wondered whether he had not died. The fantasy might have pleased him, except that he did not really believe in it. He knew he was still alive.

Days went by, days in which time was as smooth as velvet, as smooth as cream, as smooth as glass. The wind blew softly agaisnt his face and he sat on the beach in the sand and was nobody. But it came to an end at last.

That morning he woke feeling a little less empty than he had been. He had dreamed a little in the night, he thought. He yawned and stretched, snuffing at the air. The action struck him as somehow ridiculous, and he laughed. It was the first emotion he had displayed since he had realized that the doll was gone.

He was serious again in a moment. It was, as he realized immediately, no laughing matter. Something was waking up in him, and he didn't want it to waken. He didn't want to return to feeling again, to personal experience. He dreaded it as one dreads the painful return of circulation to a numbed limb. All day he sat on the beach and fought the new thing in him. But by nightfall he was aware of something pulling him.

It was not an emotion; he thought he could have resisted an emotion more

easily. This was a pull, neither quite physical nor quite psychic, on something inside his head. It was a pull toward a particular point. He could look out across the sea, into the sky turning dark after the burning sunset, and almost name the point on the horizon he thought it was coming from.

It grew dark. He began to walk up and down the beach restlessly. The sand went sss sss sss against his feet. With every hour the longing grew more intense. When the night was half over he started into Baade to ask Payne to help him, but after a few steps he turned back. He knew it would be useless.

The stars moved slowly along the sky toward dawn. He could not sleep. He was glad when the sky brightened and morning came at last.

As soon as it was light enough for him to see, he went along the beach to the left till he came to the little jetty that served Baade's pleasure craft. Four or five boats were tied up along it, bobbing up and down gently in the early morning swell.

He decided on the glossy red cabin cruiser the guests of the hotel had very occasionally used. There were patches of discoloration on its corrosion-resistant metal. For a moment he stood hesitating beside it. He didn't want to go. But he could no more resist the pull on him than a compass needle can refuse to turn to the north.

He untied the painter and dropped down into the boat. His joints felt creaky and disused. He looked at the fuel gauge and found it read three-quarters full. He kicked the motor over, wondering whether it would start. It made a lot of noise, and he hoped nobody in Baade would hear him. But it was still very early, and the little town was asleep.

He sent the cruiser away from the jetty in a long curving furrow of white foam. He headed it toward the point on the horizon from which the force was coming that was pulling on him so irresistibly.

XVIII

DON sailed for a day and a n[illegible] before he came to the island. It w[illegible] nearly on the other side of Fyon from Baade, the little town. During part of the night he slept; when he woke at dawn, shivering with cold, he saw the cruiser's white wake stretching out straight behind him, kilo after kilo, as far as he could see, in the level water. He had kept course undeviatingly while he slept.

The island itself was about half a kilo across, and as round as if it had been turned out on a drawing board with compasses. It had, in fact, served as a substation for the builders during the creation of Fyon, and nobody had troubled to disguise its essentially artificial nature with trees, bushes, or an indented shore line. It was a disk, a tablet, of durastone, with a few sheds in the middle where some of the planetoid's permanent machinery was.

Don moored his craft at the service wharf and scrambled up on it. During the voyage his indifference and alienation had left him, and now that he was here he felt an almost trembling eagerness to understand—to understand at last, to solve, discover, know. He was sure that the answer was here. He hurried toward the sheds.

When he got up to them, he saw that they were arranged around a clear area that must have served for unloading. In the middle of the clear area, hardly seeming to rest against the durastone, was a strange small ship.

It looked, at first glance, very much like the space needles Don was familiar with. But its fins were different, and so were its retractors. Oddest of all, it was skinned, not with the universal beryllium alloy, but with some redly-gleaming coppery stuff. Its entrance hatch was open wide.

As Don stood looking at it, Kunitz came around from behind the ship's nose.

"Hello, Don," he said. He smiled faint-

[redacted]'ve been waiting for you."

He looked almost exactly as he had when Don had last seen him. He was still wearing the faded blue trousers and the sleeveless undershirt. He seemed a little taller than Don had remembered him, and his face was at once more careworn and more dignified. For the first time Don noticed the muscles of his arms and shoulders, and his small, neat, careful craftsman's hands.

"Waiting for me?" Don echoed after a moment. "What do you mean by that?"

Kunitz did not answer the question directly. "Come inside, Don," he said, "and sit down. I imagine there are things you'll want to discuss."

He led the way into the ship. Don followed him mutely. "Sit on the bunk, Don," Kunitz said when they were inside. "It's the most comfortable."

There was the bunk, a seat, a table. The interior of the ship was marvelously neat and compact. And on the table, shining a little in the subdued light, stood the doll.

Vulcan's doll, the doll Don had had for so long, the doll that had vanished on the beach. "What is she doing here?" Don asked when he could speak. "How did you get the doll?"

"I called her back to me," Kunitz answered gravely. "I'm going home, Don. She was mine."

Kunitz was going home. Going home with the doll that he had called to him because she was his. Don recalled his old doubts about him.

"You—then you're Vulcan," Don said.

"Yes."

THERE was a long silence. Kunitz sat quietly, his hands resting half-closed on his thighs. Once he coughed. At last Don said, "Why did you lie to me? That story about your daughter—and all the other lies. You've told me so many lies."

Kunitz inclined his head. "I'm sorry, Don. It was necessary."

"But why?"

"The story about my daughter? The story itself was quite true, though it did not happen to me. I told it, primarily, to keep you in contact with the doll while you were listening to me. I knew that in an hour or so the tie between you and it would be formed, and after that you would be unwilling—or unable—to part with her. Before that, I was afraid you might trade her for a drink, give her away for a whim—anything. I had to keep you quiet while the tie had time to form."

"You warned me over and over to get rid of her," Don said.

"I know," Kunitz replied, agreeing. "I wanted you to be warned. I could not let you run so many risks without having warned you. And then—" he smiled—"I was counting on your stubbornness."

Don had turned white. "It wasn't fair," he said, controlling himself.

"I'm sorry, Don," Kunitz said for the second time.

Don got up from the bunk and walked around the cabin before he answered. The morning sunlight, coming in through the open hatch, lay on a rectangle on the floor. Don said, "Was it true, what Mulciber told me, that I've been nothing but a catspaw in this? Did you leave the doll for me to find on the beach?"

"Yes, I left the doll on the beach," Vulcan replied thoughtfully. "But a catspaw? No, the word is too strong. You had to be left free to think and choose and act; I could only try to direct your actions. You were, at most, a tool."

"Vulcan's tool," Don said, his face twitching. "Tell me. Tell me, a tool for what? It isn't very pleasant to think that the whole time I was being manipulated. What was the struggle between you and Mulciber? I want to know the difference between the truth and the lies you told."

Vulcan's face darkened, but the expression of his eyes did not change. "Yes, you have a right to know," he said equitably.

"I suppose I had better start with the

doll, and how she was made. A century or two ago—no, I am not immortal, Don, but I have lived a very long time—" Don saw the shadow of an inexpressible weariness for a moment on Vulcan's face—"a century or two ago Mulciber and I worked together on the doll. The first doll, the one in the museum, was my practice piece. It was in my workshop, the shop they say is situated at the end of the galaxy. The location will do, though it is not quite accurate.

"The plan for the doll, the design, were mine. Yet Mulciber had great skill. Though the wings had been assigned to him, and I had taken the body as being more difficult, we worked together. We helped each other with the shaping. I mean by that that the doll was a joint work, one which even I, alone, could scarcely duplicate.

"From his contact with the corrosive life in the doll, Mulciber got his bodily stigmata, for instance the abnormal growth of papillae on his tongue. He also got—did he tell you?—a life-span augmented far beyond that common to human beings. I had told him how the contact with my doll could be used to that end. I do not think he was grateful to me.

"He had great skill, but he grew jealous. I did not realize how consumed he was with jealousy. He envied me because, with all his skill, he could never be anything but Mulciber, while I remained Vulcan." Vulcan's voice held the assurance of one who states a self-evident fact. "Vulcan, the master of life and half-life. So, when he thought it was safe, he stole the wings and fled.

"I hunted him. For years, on a handful of planets, I hunted him. I am not without resources, but he was crafty. The years passed. They transformed the jealousy and hate he felt toward me into a hatred of all mankind, as you perceived. Then he disappeared. And when I found him again, he had used his jealousy and hate—and his brilliance—as crutches to climb to the top of the SSP.

"I knew where he was. He was too eminent to evade me. Yet, as head of a very powerful organization, he was well protected. I had to use my doll as bait to draw him into the open, to lead him to expose himself.

"Yes, I put the doll in the sand of the beach so you would find her. If not that morning, then on another. No one ever went to that stretch of beach but you. I knew that when you had the doll you would display her. And then Mulciber must reach out for her and expose himself."

"And you say I wasn't your catspaw?" Don said. He laughed. The patch of sunlight on the floor had moved.

"I think not," Vulcan answered evenly. "I ran many risks. There was always the danger that you would be persuaded, or, before the tie had grown so strong, intimidated, into parting with the doll. The great danger, you see, was that the doll, without you, would fall into Mulciber's hands. Then he could destroy her. Oh, I had bad moments. But in the end my plan was accomplished, and the SSP captured you. Mulciber introduced his own destruction into his citadel."

DON was looking at him incredulously. "It was your plan to have the SSP capture me? Like the great horse of Troy? Then your offers of help, your—" he choked. "Do you mean that you betrayed me to the SSP when I was in the hemisphere?"

Vulican nodded. "Yes," he answered nakedly.

"Then Phyllis—?"

"I am sorry. I am truly sorry about the girl. It was no part of my plan that she should suffer. I tried to make sure that she would not be in the hemisphere. I told her to come to talk to me that night as soon as she could. But she stayed."

"You killed her," Don said. Then, after a moment, "No. I did."

"You asked her to stay?" Vulcan nodded, as if to himself. "Yes. That was . . . fate."

"How could you know that I would kill Mulciber?"

"Why, what else could you do?" Vulcan answered, as if surprised. "All he was able to do was to sever the gross tie between you and the doll. A finer, subtler tie of psyshic energy remained. If his death had not come in exactly that way, it would have come in another. I was watching you, you know. It was through my shadow that you escaped.

"But now it is over. When you joined the wings to the doll, the tie between you and it was finally severed. And now that she is complete, the changes will come. My doll has helped humanity to change."

The cabin was quiet. Outside, a sea bird gave a harsh, grating cry. Don saw it through the open hatch, twisting and turning against the wind. In a sudden access of bitterness, he said, "I don't know how you dare."

"Eh?" Vulcan sounded genuinely puzzled. "Dare? What do you mean?"

"Dare to manipulate us so casually." Don choked, then went on passionately, "How are you any better than Mulciber? He hated humanity, he envied us our future and wouldn't leave us free to change. He wanted to force us to stay as we were.

"You leave us no more free than he did. You have determined our destiny for us. We aren't choosers now. We will do what you have decided we ought to do, like puppets. You'll pull the strings, and we'll obey you. Is all humanity to be your living dolls?"

Vulcan smiled. He said, with extreme gentleness, "It is not like that."

"Humanity will shape its own future. I am not capable, even if I dared, of directing it as you think. My doll was, in the end, nothing but a focus for psychic force. Not one human being will change otherwise than he was capable of changing, because of her. She has only liberated and wakened a sleeping force.

"And she has helped whatever was already in their bodies as a potentiality to come to consciousness. Now that it has become conscious, it can be acted upon by the conscious will. The men and women of science will point out the way. And the force that rose from body to mind will act on the body again.

"I shall not shape humanity's future. I do not even imagine it. It is so rich in possibilities and potentialities that it is, strictly speaking, unimaginable.

"Perhaps human beings will want greater vital force, and a man of the future will be as much more 'alive' than a man of today is, as a present-day human being is more alive than a lizard. Perhaps they will want a greater life span, or augmented intellectoual and psychic powers.

"Perhaps they will decide to develop possibilities of which we nowadays are wholly ignorant. Perhaps there will be winged human beings who will inhabit the air as fish do the water. Perhaps there will be human beings who will be able to tolerate the cold of interstellar space without armor. Possibilities. . . I don't know. One way or another, they will imagine wings for themselves.

"Don, when you came in the ship, you were so amazed at seeing my doll that you did not really observe her. Look at her carefully." He gestured toward the table.

Don obeyed. He went to the table and picked up the doll.

HER eyes were closed and her wings were folded. She weighed less than he had remembered, and she no longer felt faintly warm to the touch. She was still beautiful, but Don saw that the miraculous life had gone out of her. She was no longer Vulcan's doll. She was a masterpiece of art, an extremely beautiful statuette.

Don said, "What's happened? She's dead."

"No," Vulcan corrected. "She is asleep. If there is need of her, an impasse, a time at which she could help, she will wake again. Until then, humanity will shape its future for itself."

Vulcan's assurance had carried conviction. Don replied thoughtfully, "Yes.

But isn't there danger from another side? The changes of which you speak—will the SSP let us make them, after all?"

"The SSP is no longer a danger," Vulcan answered. "Mulciber was a man with a genius for organization, and a man of great personal force. He left no successor. The struggle for power among his lieutenants has already begun.

"The SSP will ruin itself in dynastic contests. In the end, its force will be completely dissipated. Did you know that three prisoners escaped from Phlegethon yesterday? When such a thing as that can happen, in the SSP's own inviolable citadel, the collapse has already begun."

Don put the statuette down on the table. "One thing more," he said. "Mulciber spoke of struggles between the new species of men. Is that true? Will there be—war?"

"I do not think so," Vulcan answered. His voice had taken on a profoundly weary note. "I think humanity has learned the lesson of its unity too deeply ever to forget it. There may be cross-currents for a time in the great river. But in the end it will again flow as one great stream.

"Perhaps the new differences will only emphasize the basic unity. Perhaps humanity has warred so bitterly with itself in the past because it was ripe for change and could not make the change. I believe—I hope—that mankind will be too occupied with its limitless new horizons to have room for hate.

"What is not yet born is always dangerous. The future is a challenge. But no society can refuse to face it and survive. You cannot go back to the day before yesterday, or put back the clock.

"You said that I thought of all humanity as my puppets. I hope I have shown you that that is not true. For the rest, I have sometimes wondered . . . if Vulcan himself, even Vulcan, might be no more than some mightier Vulcan's doll.

"Well, I have won. Mulciber has been destroyed." For a moment the artificer's face wore an expression of triumph. "But winning has tired me. I have lived so long; my life is measured not by years, but by centuries. You don't know how weary: . . Now I want to sleep.

"I am going back to my workshop, the workshop they say is at the end of the galaxy. There, with my dolls around me, I shall sleep. The years will go by, and the centuries, and I shall go on sleeping. I think I shall sleep for a thousand years."

Vulcan held out his hand. "Come with me, Don," he said. "You are tired, you have been wounded. But even the deepest wound will heal if one sleeps long enough. Come with me and sleep."

Don fingered his lips. He went over to the hatch and looked out. From the position of the sun, it must be almost noon. The durastone of the island was one white glare. He came back and stood in front of the table, blinking as his eyes once more grew used to the subdued light.

"No," he said. "I don't know what the future has for me. As you say, I've been hurt. I don't feel as if there really were a future. But I don't want to sleep. I slept enough when I was on the beach, before you called me. I think your long sleep would be like that. Neither dead nor alive, half-numb for centuries—how would that help me? I don't want that."

Vulcan got up from his chair and went over to where the younger man was standing. He laid one hand very gently on his arm. "Don," he said, "I hoped I could spare you." His voice was full of pity. "Don't you understand yet? Don—you are one of my dolls."

FOR a moment the words rang in Haig's ears and had no meaning. Then he turned a white face on the artificer. "*No,*" he said.

"Yes," Vulcan answered gently. "One of my dolls."

"A robot," Don Haig tried to laugh, but his lips were shaking pitifully. "It can't be true. Of course I'm a man.

"I eat, I drink, I go to the latrine. I've

had women—" for a moment he thought of Phyllis—"and given them pleasure. How else can I prove I'm a man? You're lying. This is another of your lies."

"You are well made," Vulcan conceded. "Very far indeed from being a robot. But you spoke of women. Tell me, did you ever have a child?"

"No. But of course we never tried for that."

"It would have made no difference if you had," Vulcan said evenly. "My dolls are sterile, you see."

"I'm not—it isn't true."

"Oh, yes. I can prove it, Don."

There was a silence. Then Vulcan said, "Why do you think you cannot remember back beyond your fourteenth year? It is because you were that age physically, when I made you, and I was unable to provide you with a synthetic memory.

"You spoke of a dim memory of a big room. That was my workshop, where you first saw the light. It covers half a planetoid.

"How do you think you were able to keep the doll so closely with you for so long? Ordinary human flesh would have been rotting in half the time. But your flesh is not quite like that of mankind, and I had made you so that you could without damage keep the doll."

"You made me so I could get the doll for you?" Haig asked tonelessly.

"Yes. Perhaps you wouldn't consider the feelings of alienation and difference that have plagued you since you were made as any sort of proof. Human beings do suffer the same things, though not so painfully. Or that it would have been impossible for a tie to be formed between an ordinary human being and the doll, with her half-life; or that I couldn't have called an ordinary human being to my ship here on the island, as I did you. But there is one last item of proof. Look at your left arm."

Don half-raised his elbow, and then dropped it. "It's a birthmark. It doesn't mean anything. I've always had it."

"It is not a birthmark," Vulcan contradicted gently. "It is my signature. It is Vulcan's sign.

"Don, now you know. Come back to my workshop, to the place where I made you. I and my creations—we shall both sleep." Vulcan's voice held soft persuasion. "Come with me and sleep until your wounds are healed and you forget."

Incredulity, and hope, had died in Don when Vulcan had mentioned the birthmark. He held his hands out in front of him and turned them over and over, looking at them impersonally, trying to see where their artificiality lay. . . Oh, it was true. A V is nothing but a lambda upside down.

AT LAST he raised his eyes to Vulcan's face. The craftsman had not moved. On his lips there was a faint, faint smile.

"'Old father, old artificer—'" Don said. His voice broke.

"You read that somewhere," Vulcan observed gently. "You were always fond of reading, weren't you, Don."

Once more Don said, "Old father . . ." and faltered. Then he continued, in a stronger voice, "You offered me a long sleep. But what is sleep to me? If I slept for a thousand years, I would still not be human. I have no future. I am one of your dolls.

"Give me what I would rather have."

"And that is—?"

"You know," Don answered almost casually. "Death."

Vulcan inclined his head for a moment. He let out his breath in a long sigh. He said, "Yes."

He went to a cupboard, opened it, and fumbled for an instant. Then he gave Don a flask. The liquid it contained was clear, but it had a deadly glitter. "Here," he said.

Don said, politely and a little absently, "Thank you." He took the bottle in his left hand. It felt cold.

"You'll be going now, won't you?" Don continued. "Back to your workshop, which is not quite at the end of the galaxy, but near there. I'll say good-bye."

"Yes, I'll be going," Vulcan said soberly. He held out his hand to Don, and Don took it. The palm was smooth and strong and firm.

"Good-bye, Don," Vulcan said. For a moment he laid his arm around Haig's shoulder in what was almost an embrace. Don saw that his eyes were very bright. "Good-bye," he repeated. "—My poor doll."

He went with Don to the hatch. Don, when he had descended, looked back and saw him standing in the opening for an instant, his hand raised in salute. Then the hatch closed.

The copper-colored ship lifted noiselessly from the white durastone of the loading area. There was no blast of rockets, no fuel explosions, only a noiseless lifting.

The ship hovered a meter or so above the rock. Then, while Don watched it, its outlines wavered and grew hazy. Momentarily it came into an extraordinarily sharp focus, as if it were seen through the wrong side of a lens. Then it disappeared.

VULCAN had gone. Don turned from the loading area and began to walk down toward the service wharf. He carried the bottle carefully in both hands. It was more precious to him, now, than the doll had ever been.

He reached the landing and sat down on it beside the glossy red cabin cruiser, his legs dangling over the side. He uncorked the bottle and smelled the liquid in it. It was almost odorless, but it had a faint, dim smell like that of flowers.

Very far overhead he heard the pounding of a rocket. It must be a space needle, going down to Shapley, the other settlement on the artificial planetoid. He thought of the people in the needle briefly and with a touch of wonder. What would their future be like, that future that Vulcan could not even imagine? He thought, if I could hear their voices, they would have strange new notes.

It didn't matter, really. He did not envy them their future. He was impatient for his rest.

He raised the bottle and drank.

The liquid was bitter and a little spicy, so that it stung his lips and tongue with a not-unpleasant warmth.

When he had finished it, he sat waiting. In a little while a wonderful warm blackness began to move from his feet along his limbs. It crept higher, and it was a black swansdown of deliciousness, utter deliciousness, quiet, all-embracing, and tender. It moved toward his heart. It was like the warmth of the womb he had never known.

His body slid forward limply from the wharf into the water. His last thought before the black feathers covered him completely was a trivial curiosity whether the hotel would ever find the cabin cruiser, a trivial hope that his body would not be caught in the machinery that caused Fyon's tides.

---

the SUBVERSIVES

by
Chad Oliver

The quiz show offered the winner a world—but "Who are the traitors?" was the real question

AN EXPECTANT hush settled over the mammoth audience jammed into Studio A of the Worldwide Television Network. Children sat very still and commuting housewives held their breaths expectantly. A scattering of trapped men stopped fidgeting and began to get interested in spite of themselves.

A red light flashed.

A little man with a frenzied, fixed smile dashed up and grabbed the microphone.

"This is it!" he yelled.

Pandemonium blasted forth in the studio. Middle-aged women screeched hysterically, children shouted, and men added their applause to the uproar. The

announcer rubbed his thin hands together and made with his very best God-bless-you-all smile.

"Yes, this is it!" he repeated urgently. "The makers of Abraham Lincoln Vitaminized Popcorn once more are happy to present to you that super-colossal quiz show—Win the World!"

The audience again exploded on cue.

"That's right, Win the World—that sensational show where you can win fabulous prizes and up to one hundred thousand dollars in cash! We may not be able to actually give away the whole world—but we'll give away a good chunk of it!"

Laughter.

"And now—and now—to tell you more about the game that's sweeping the country just like Abraham Lincoln Vitaminized Popcorn, here's that genial soul, your laughing quizmaster—Jack Potts!"

Atomic fission and associated roars as Jack Potts—he insisted that that was his real name—made his entrance. He was a rotund individual clad in a red-and-green checked suit, bow tie, and sporting a prodigious grin. He waddled out from the wings, radiating professional good cheer.

"Ho, ho, ho," ad libbed Jack Potts. "Hel-lo there!"

"Hel-lo Jack!" screamed the audience responding on cue.

"Ho, ho, ho. Well, here we go again with Win the World," stated Jack Potts in his informal way as he munched on a bag of Abraham Lincoln Vitaminized Popcorn. "All them there fabulous prizes are just sittin' around waiting for me to give 'em away and I've got one foot in the Bank of America with my bare toes wigglin' in piles and piles of that crisp green lettuce. So what do yuh say, friends? Let's play Win the World!"

Enthusiastic hollerings.

"But first—"

Everyone knew what "but first" portended. Happy Hathaway, the frenetic announcer. Happy managed to smile frankly, chew some Abraham Lincoln Vitaminized Popcorn, and keep his polished voice as smooth as butter all at the same time. He told his millions of listeners that popcorn was as American as Abraham Lincoln, and that it was every citizen's duty to eat some every day. In addition, he pointed out with incisive logic, Abraham Lincoln Vitaminized Popcorn was right in step with the Scientific Age—it contained vitamins!

A peppy little quartet dressed like popcorn bags bounced onstage and gave out with a profound jingle to the effect that night or day, eve or morn, the time was always precisely right for Abraham Lincoln Vitaminized Popcorn.

"And now," leered Happy Hathaway, "it's back to your old pal and genial quizmaster—Jack Potts!"

Still more screams from the bottomless pit.

"Ho, ho, ho," commented Jack Potts with his customary ingenuity. "Yes sir, it's time once again to play Win the World. And here's our first little old contestant who's going to have a go at all them staggering prizes. Step right up here, sir—that's it, don't be nervous. Ho, ho, ho, we're all one big happy family here!"

The big happy family applauded lustily.

"Yowsah. And now—what is your name, sir?"

"Lalton Darja," the man said.

"Beg pardon," said Jack Potts. "I don't believe I quite got that there name. Ho, ho, ho! Stupid of me. Try that again, eh?"

"Lalton Darja," the man repeated readily.

THE contestant was a small, nattily dressed man with horn-rimmed glasses. His well-cut brown suit, dark green tie, and spotless brown and white shoes might have materialized from the pages of Esquire. His hair, which seemed to be prematurely gray, was neatly combed and he had an air of quiet

confidence about him.

"Hmmm," observed Jack Potts. "Well Mr. Darja, may I ask you where you're from?"

"You can ask me," conceded Lalton Darja. "But I won't tell you."

"Beg pardon?"

"You might say that it's a military secret."

"I quite understand," said Jack Potts with a confidential between-us-soldiers attitude. "Yes sir, ladies and gentlemen—one of our gallant, unsung heroes!"

Polite applause for the unsung hero.

"No doubt that accounts for your—ho, ho, ho—rather quaint name, eh Mr. Darja?"

"It is my real name."

"Well, if you insist. And now, Mr. Darja, are you ready to Win the World?"

"Indeed I am."

"You know the little old rules, of course. You get to continue as long as you answer correctly, and with each correct answer the lump sum you win at the end of the program gets bigger. You may stop at any time, but if you miss a question you forfeit everything previously won. Don't forget them fabulous prizes! Now then, what category have you selected?"

"The planet Mars."

"I see. Well now, that's a toughie. Yes, sir!"

"Oh, I don't know," said Lalton Darja with a smile.

"Well, we'll see. Off we go with Win the World! For your first question, worth a year's supply of Abraham Lincoln Vitaminized Popcorn and one thousand dollars in cash, how far is it from the Earth—that's this planet, you know—to Mars?"

"It varies of course, but at perihelion the distance may be less than thirty-five million miles."

"Hmmm. Ho, ho, ho! Absolutely correct."

Astonished applause for the planetary expert.

"Yes sir, Mr. Darja, I can see that you know that astronomy stuff. You realize, of course, that if at any time you wish to take your winnings and leave you are free to do so."

Silence from Lalton Darja.

"I see. Well, for your next question. This is a little tougher, folks, which is worth five thousand dollars and one hundred valuable acres in Alaska. Can you tell me, Mr. Darja, how far it is from the sun to Mars?"

"Yes."

"Ho, ho, ho," chortled Jack Potts. "I'm afraid you'll have to give us the distance, Mr. Darja!"

"The mean distance is one hundred and forty-two million miles."

"Well."

A burst of wild cheering from the audience.

"Don't forget now, Mr. Darja!" urged the genial quizmaster. "You can quit at any time."

"I'm going to Win the World," announced Lalton Darja.

"Ho, ho, ho! A laudable ambition," chuckled Jack Potts with the ready wit that had made his name a byword on the airlanes. "Let's see now. For your next question, worth twenty thousand dollars and a ranch in Texas—"

A RUBBER plantation in Brazil, a skyscraper in New York and a game preserve in Africa later, the Great Moment arrived.

"Ho, ho, ho," mumbled the sweating Mr. Potts. "Remember! You can quit at any time."

"I'm game if you are," said Lalton Darja.

"If *I* am?" responded Jack Potts with forced incredulity. "Why you bet your little old life I am, yowsah! Shucks, it don't make any difference anyhow. Just the other day a man came up to me on the street and called me an old Indian giver."

"How did he know?" babbled Happy Hathaway right on cue.

"I gave him an old Indian," Jack

Potts said triumphantly.

Laughter.

"Ahem, yes. Yes, sir! And may I wish you, on behalf of the makers of Abraham Lincoln Vitaminized Popcorn ——it's so crisp—the honor of becoming the first contestant in the history of Win the World to go the distance, as we radio people say. Your knowledge of the planet Mars is, er, phenomenal, Mr. Darja."

"It should be."

"Hmm. Well, friends—this is it!"

Tense buzzings from the excited onlookers.

"Yes sir, Mr. Darja must be just plumb full of that dee-lishus Abraham Lincoln Vitaminized Popcorn! You just can't never tell what them vitamins will do for a man's think-tank, I always say. I used to be a ninety-seven pound moron myself and now I weigh almost two hundred!"

Scattered laughter from the studio.

"Ho, ho, ho! Well, here we go, Mr. Darja. You all set?"

"Quite."

"Yes. For one hundred thousand dollars then and the mineral rights to ten acres of extremely promising land in the Oklahoma oil fields, here is your Win the World question and it's a toughie."

Electric silence.

"As you may know, Mr. Darja, the planet Mars has two polar ice caps, from which the so-called canals appear to radiate. Your question is—how deep is the ice at the poles of Mars?"

Lalton Darja, impeccable in his brown suit and dark green tie, his hair still neatly combed, did one of those ordinary things that can seem quite astonishing under certain circumstances. He fished out a package of cigarettes from his pocket, peeled off the cellophane, and extracted a cigarette and lit it with a nickel-plated lighter. He blew a perfect smoke ring at the television camera, smiled, and cleared his throat.

"Ho, ho, ho, Mr. Darja," hinted Jack Potts. "May I remind you that—"

"Yes. Quite. Very interesting about those polar ice caps, I think," Lalton Darja said calmly. "Oddly enough, you know, those really are canals and they do run from the poles."

"Oh?" commented the astute Mr. Potts.

"Not only that, but they contributed to a rather unusual incident in the war now being waged between the planets which you have named Mars and Venus."

Jack Potts just stared at him.

"It's quite simple really," explained the amazing contestant. "Both Mars and Venus, you see, are inhabited by basically humanoid races. You couldn't tell them apart from human beings. As far as appearances go, I might be a Martian myself."

NOBODY seemed to know what to do. The great lights blazed down on the little man and the sterile microphones took down all he said and repeated it mechanically around the Earth.

Lalton Darja took a long, refreshing drag on his cigarette and seemed totally unaware of the consternation he was causing.

"A most interesting situation, that," reflected the little man. "Three planets, two of them actively hostile, and all with races of similar structure. And the Earth is situated in space between Mars and Venus."

"The canals," Jack Potts said weakly.

"Ah yes, the canals," agreed Lalton Darja, grinding out his cigarette on the polished floor. "As I said, they figured prominently in a rather unusual incident. The Venusians infiltrated into positions in the Martian Canal Guard and tried to systematically poison the water supply. Rather crude, you might think, but, with highly developed atomic defenses and evenly matched space fleets one is sometimes forced to resort to somewhat unusual methods."

The audience sat in tense silence. They waited for this strange individual to lapse into little-green-man and flying-

dragon talk. They waited for the boys in white coats to dash in from the wings. They were almost ready to laugh, but not quite. There was something. . . .

"There is a visible difference between the planetary races, however," Lalton Darja went blithely on. "That's how the Martians discovered the enemy in their midst. The different environments, you see, affect the pigmentation of the eyes, so that in the dark a Martian's eyes appear red, while a Venusian's are green. Terrestrials, of course, have no pronounced eye-glow in the dark at all. This has been a tremendously important factor in the history of the war, as you may well imagine."

It was an instant suspended in time. The blank microphones waited patiently and the great lights glared down on the stage. In the hovering silence, it was a distorted photograph sliced out of sober, pale-white madness.

"Interesting," Jack Potts said finally, eyeing the little man's horn-rimmed glasses. "I might even say very interesting. Ho, ho, ho!—My yes! But—ah—our time is running out, Mr. Darja, and despite your entertaining story-telling you have not answered our question. And so—much as this pains—"

"Oh, the question," interrupted Lalton Darja. "That's easy. The ice at the poles of Mars varies somewhat in depth, as might be expected. It is deeper near the poles than it is toward the extremities of the polar circles, and the depth changes with the seasons. On the average, however, the ice surrounding the Martian poles is two and one half feet thick. If you wish, I can give you specific depths for any given area during any season of the Martian year."

"Well," commented the ever-witty Mr. Potts. "Well."

Lalton Darja beamed at him cheerily.

"It sure enough looks like Mr. Darja has gone and done it, folks," announced Jack Potts with nervous heartiness. "For the first time in the history of this program a contestant has Won the World!"

Hesitant applause rippled around the studio and then swelled into a roar of approval. The audience began to laugh delightedly. After all, a good show was a good show. What a character that Lalton Darja must be!

The little man in the neat brown suit and dark green tie went through the remainder of the program and the after-show routine of name-signing and certifications with great aplomb. If good old Jack Potts was perhaps not as genial and hearty as was customary, perhaps he can be pardoned on the grounds of extenuating circumstances. Extremely extenuating.

Before he left the studio, Lalton Darja casually replaced his clear horn-rimmed glasses with a dark-lensed pair, being careful not to disturb his iron gray hair. He whistled a little tune that sounded suspiciously like "I've Got the World On a String" as he walked briskly through the cream-colored, hospital-like corridors of the WTN Building, a check for one hundred thousand dollars in his pocket.

A man stepped out in front of him.

"Mr. Darja."

"Yes?"

"This may sound batty—"

"Possibly."

"But—"

"If you don't mind, I'm in a hurry. What is it?"

"Are you—a Martian?"

"Oh come now!" said Mr. Darja impatiently.

"But those glasses . . ."

"Don't be an idiot."

Lalton Darja pushed on past the man and hurried out into the night sounds of the city. He felt relief welling up in him like a warm glow.

"Are you a Martian?"

That had been too close for comfort.

MR. LALTON DARJA, well pleased with himself, walked jubilantly through the life swarming on the city streets. He nodded and tipped his hat in friendly fashion, his eyes quick and

eager behind his dark glasses. It was all so easy, such a snap!

He laughed softly to himself. A perfect set-up. A spy in a land that didn't even know it was in danger, that would have laughed at the mere idea of the existence of an alien enemy world! A secret agent who could tell the literal truth about conditions over a world-wide television program and have it all dismissed as the ravings of a screwball or a gigantic hoax. How could you miss?

He liked the little quirk of humor that had prompted him into his performance on the television show. It was sharp! It was the sort of thing that would one day make him famous on his home planet. When the full story was written of his part in the Confidential Earth Mission his name would go down in history.

He smiled. The importance of the Earth, situated as it was between Mars and Venus, was overpowering. It served as the rough equivalent of a monstrously huge space ship orbited between the warring worlds, a factor of inestimable value in strategic maneuvering. And they almost had the Earth!

Money invested in the right places, secret plans, the playing of the major powers against each other, bases developed, men trained. It all took money, this groundwork for invasion. Even a hundred thousand dollars helped—and a man has to have a little fun now and then, even a secret agent.

The dapper little man entered the labyrinthine subway system, seated himself on a flashing train, and addressed an envelope to a man in Chicago. He stamped it and sealed the endorsed check for one hundred thousand dollars inside. Then he got off the subway train at the next station and started back to his hotel.

Not a bad night's work, he thought. Not bad at all. He could mail the letter in the box outside the hotel. When the fleet came to Earth, they would be ready.

Lalton Darja walked on through the milling, purposeless crowds in the city night, his heels clicking faintly on the sidewalk. A forest of lights surrounded him—red and green neon, blazing theater marquees, pin-points of light in the silent gray shafts where lonely people worked far into the night on their little, urgent problems. If they only knew!

But they didn't. Lalton Darja turned off into a shortcut alley, plunging into

a different world. It was murkily dark. Cold iron fire escapes twisted down the sides of dirty buildings and bits of refuse littered the narrow street. Garbage cans stood like weary sentinels along the canyon of dead buildings. The torn pages of old newspapers shrieked frozen headlines to a static world.

A cold wind whined up the alley, but it was quiet there as the barriers of granite and steel insulated it from the clamor of the great streets. Lalton Darja shivered.

OVERHEAD, a pale moon floated in the black smoke of night. And down near the horizon, dimly glimpsed between the dirty buildings—Lalton Darja took off his dark glasses and looked at the stars.

"Are you a Martian?"

Too close for comfort!

His home looked back at him, faint and far away. Venus. The Evening Star. Lalton Darja's brilliant green eyes glowed eerily in the night.

He walked on. The murmur of the city was all around him, and yet he moved in an island of silence. It was cold. An icy shiver crawled up his spine.

Someone was following him.

He quickened his steps. It was dark in the alley. If he could make the street, the lights—

Too far. And that check for one hundred thousand dollars was still in his pocket.

Maybe he wouldn't notice the envelope. Give him his pocket money, get rid of him. His life was too valuable to risk. He heard a puffing wheeze behind him and turned around. A great, corpulent figure of darkness padded after him.

He wished desperately for the gun he had left in his hotel room.

The figure came on inexorably. A wild, unreasoning fear clutched Lalton Darja like a constricting hand. Cold sweat beaded his forehead. There was something terribly familiar about that follower in the alley—the great body—the bow tie—

"Mr. Potts," he breathed.

The fat man smiled coldly and came on. His eyes! His horrible, blazing red eyes like twin coals of flame in the night!

And the knife!

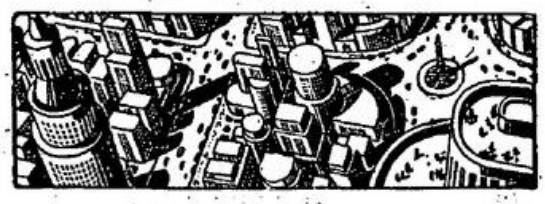
Lalton Draja screamed—once.

Jack Potts, which as it turned out was not his real name after all, waddled out of the alley alone. The great smile that was known to millions beamed on his cheery, rotund face. He patted the envelope in his overcoat pocket.

"Indian giver," he chuckled softly to himself.

He put on his dark glasses and went out into the great street. He smiled and nodded to his many friends and breathed the cool night air. It was all very pleasant.

He walked back to his hotel and the old, sad moon of Earth watched him go.



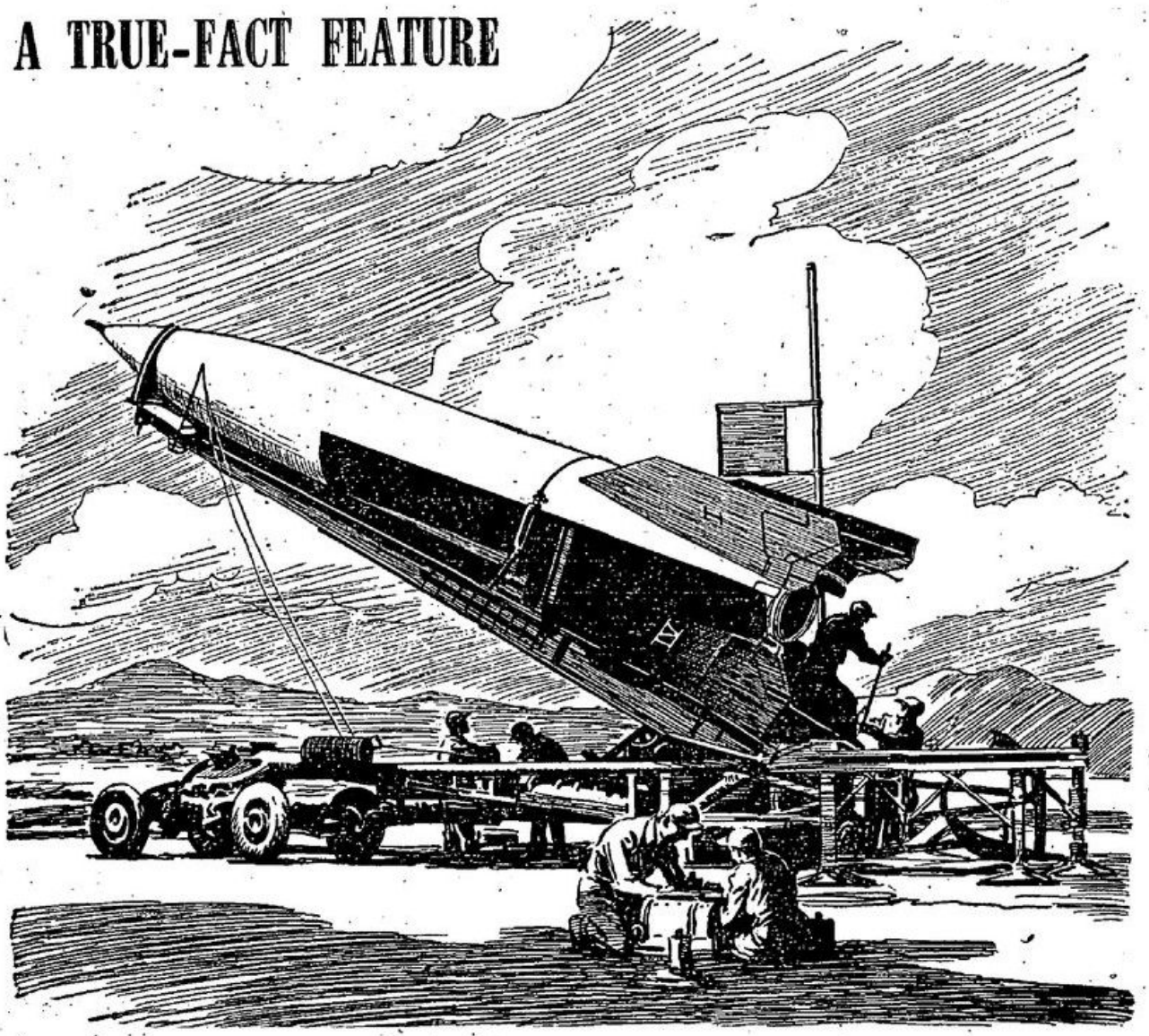
COMING IN NEXT MONTH'S ISSUE

THINGS OF DISTINCTION

A Riotous Novelet of Galactic Hucksters

By KENDELL FOSTER CROSSEN

A TRUE-FACT FEATURE



PILOTED ROCKETS

By WILLY LEY

The one-man space boat of tomorrow is possible—today!

AMONG the scores of tons of German military documents brought to this country after the war, there is one item that sounds as if it had been kidnapped out of a science-fiction story. It isn't what one would call an engineering paper, for it is mostly just the description of an idea. And the declassifying officer apparently did not think too highly of it, for "released document PB 54,500" was not even translated; it was simply made available as it stood, in its original language.

But it contains an interesting idea,

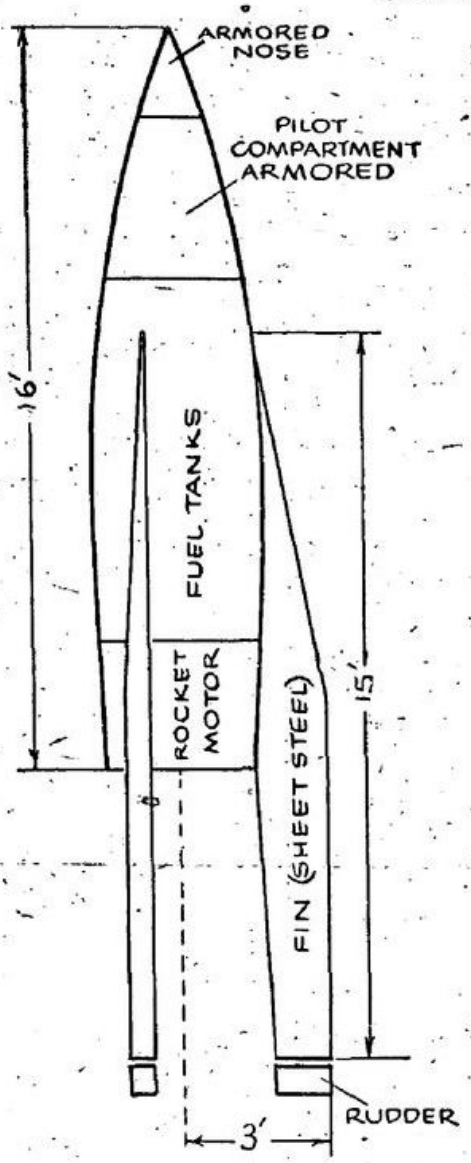


FIGURE 1
Piloted Anti-Aircraft Missile
(Lippisch)
3 fins, 120° apart; Booster units between fins, jettisoned at X + 12 seconds

of practical importance in the near as well as in the more remote future.

During the last year of the war, when Allied bombing raids on German territory became more and more massive and followed in closer and closer intervals, a number of *Luftwaffe* fighter pilots began to hatch ideas of their own. They were, it seems, pretty unhappy about the small amount of ammunition that could then be carried aboard a fast fighter plane. Ten to twelve seconds of action with all guns and two projectile rockets —and then they had to land again. The pilots began to dream about a plane which could swoop down on a bomber and shear off a wing or part of the tail assembly. Of course the fighter planes which they did have might be used in such a manner, but the pilots had very little interest in posthumous decorations.

It is now known that the Luftwaffe pilots were not the only ones who had such ideas and talked about them. In this country the Army actually ordered the design of a fighter plane which would survive the ramming of an enemy bomber and still be airworthy enough to land. The plane, designated P-79, was a jet-propelled flying wing. A few of them were built and flown, but the P-79 was neither mass-produced nor put into trial combat; apparently the war stopped before the development was anywhere near completion.

IN GERMANY the project of designing a plane for ramming Allied bombers was turned over to a famous fighter plane designer, Dr. Alexander Lippisch, who has to his credit, among other things, the design of the rocket-propelled Messerschmitt Me-163B *("Komet")*. Dr. Lippisch thought about the problem and decided that the answer was not an airplane at all. Instead he conceived what can best be called a "piloted missile," an armored rocket some 16 feet tall (Figure 1). These interceptor rockets were to take off vertically when a flight of bombers was almost overhead. The pilot of such a rocket was to be somebody who did *not* know how to pilot a plane; it was felt that an airplane pilot's training patterns would make it difficult for him to aim and hold to a collision course. And the rocket pilot's job was just that: he was to aim at a bomber, specifically at a wing or the tail assembly, and crash through it. Since the attack came from straight below, the bomber's gunners would not be able to do much about it, although the gunners of one bomber might be able to hit a rising rocket aim-

ing for another bomber.

Having crashed through wing or tail of the attacked plane, the rocket would, of course, continue to rise. The pilot, if the rocket motor was still working, would then cut the fuel flow as soon as he could possibly manage and would also tilt his rocket so that it would not rise into very thin layers of the upper atmosphere. As soon as the speed of the rocket had receded to a manageable figure, its pilot would bail out and return to the ground via parachute, while a timing mechanism activated by the pilot's bail-out would release another parachute for the rocket itself. That way the rocket would not do any great damage on the ground and might be recovered for possible re-use.

This piloted missile was designed for a rocket motor with a thrust of 3300 pounds, which happened to be available at the time. The main member of the rocket was to be a strong steel tube, centrally located, which supported the sharp steel nose at the upper end and was mounted on the motor at the lower end. Just below the steel nose there was to be the compartment for the pilot, armored against stray bullets and fragments. There were to be three highly sweptback fins, made simply of sheet metal of sufficient strength to resist accidental deformation. Each fin was to have a rudder at its lower end. The three rudders were to be so linked together that the pilot just had to turn a steering wheel to keep his target in his sights. Between the fins, three solid-fuel rockets—each with a thrust of 2200 pounds—were to be placed for take-off help, both to overcome the inertia of the missile and to provide stability during the early part of the take-off.

The take-off weight of the rocket, fully fueled and ready for action, was to be 2200 pounds, plus the weight of the pilot and that of the three booster rockets. The missile would reach an altitude of 30,000 feet in a little less than 40 seconds and would have about the speed of sound at that altitude. Total operating time was to be one minute. During operation the missile would at no time accelerate so fast that there was danger of the pilot "blacking out."

SO MUCH for the story of the German project, which was conceived during the latter part of 1943. I don't know why it was not built, at least experimentally. Apparently it was feared that no human pilot possessed—or could continue to possess, at any rate, as the moment of collision drew near—the degree of valor necessary to run his rocket literally head on into a bomber.

As far as that particular problem is concerned, a solution is now at hand.

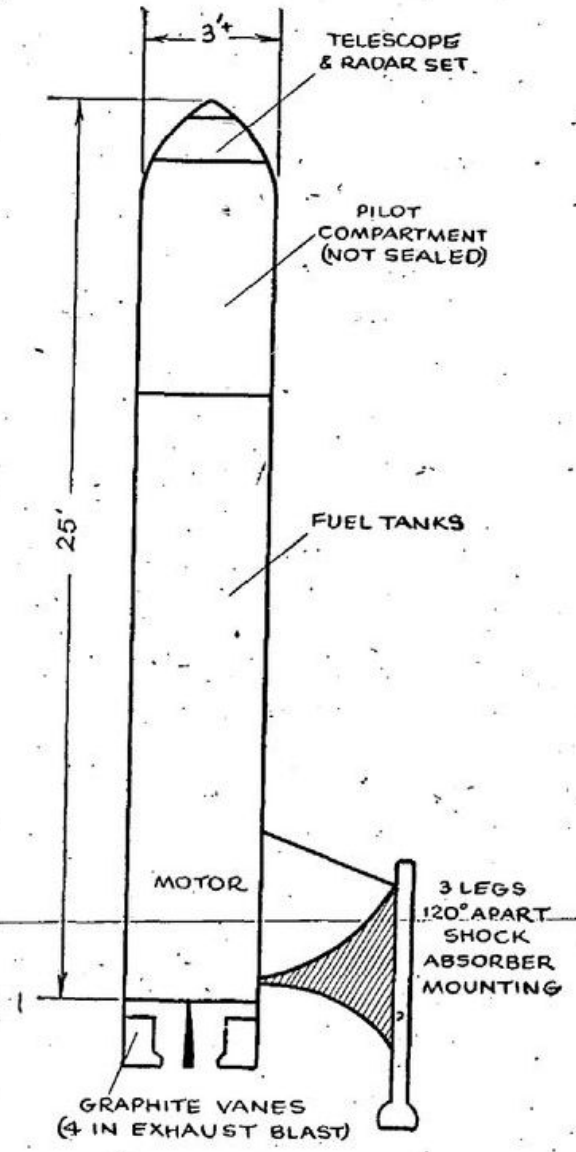


FIGURE 2
One-man space boat, developed from piloted AA rocket

A present-day designer would not have to consider pilot reaction and pilot psychology; for nowadays such an interceptor rocket would not carry a live pilot—it would carry a television camera.

The technician "piloting" it would sit safely, and perhaps even comfortably, in a bomb-proof dug-out and hold his collision course on a screen. Modified by this new possibility of remote piloting, Dr. Lippisch's bomber-swatting missile may still make its appearance at a future date.

But the unfinished German project had other, less violent implications. It was the first sketch for something you have often encountered in science-fiction stories: the one-man space boat (Figure 2). That interceptor rocket, if it had been built as described by Dr. Lippisch, would have reached an altitude of almost 60,000 feet on a vertical course. It would have done this loaded down with the half-ton of steel needed for its military purposes.

But as a non-military man-carrying rocket it would not need a steel nose. It would not need a central steel tube. It would not need armor around the pilot compartment. Nor would it be necessary to have the pilot compartment pressurized—as called for in the original sketch—because it would be occupied by a man wearing a space suit.

After shedding all the unnecessary weight, the rocket could carry at least double the fuel load it carried before. Since this would require bigger—or rather longer—fuel tanks, the rocket would be longer than its military counterpart, but of the same take-off weight. Another change would be to eliminate the fins and replace them by three shock-absorbing legs on which it can stand before take-off and come to rest when landing. Since such a rocket would not operate in air, or only for a very short time, it could not be steered by rudders in the airstream. It would have graphite vanes in the exhaust blast, instead.

Such a made-over rocket would probably reach 150,000 feet altitude, even against earth's gravity and with the handicap of earth's dense atmosphere for the early part of the flight. If used from the moon, such a rocket would carry its pilot to a distance of more than 100 miles from the lunar surface. *It would be powerful enough to get a single man from the surface of the moon to a space-ship orbiting around the moon!*

As a result, during an early expedition to the moon the ship itself would not need to land; it could be put in an orbit around the moon and one or two explorers could descend to the lunal surface in such one-man rockets, returning to the ship after an interval of time which had been agreed upon beforehand.

It would not be necessary to carry these one-man space boats, which would be some 25 feet long and only a little over 3 feet in diameter, inside the spaceship. Three or four such rockets could be attached to the ship on the outside. They would cause drag, but only during the very early stage of the initial take-off when the spaceship's velocity must of necessity be moderate anyway. And that drag would be a lesser evil than designing the ship with a sufficiently large airlock to permit carrying the rockets inside with any intention of getting them out.

Two things about such one-man rockets are especially interesting. One is that to its pilot the motion would always seem to be straight "up." No matter whether he is actually taking off from the moon to get to his ship, or whether he is settling down on the moon coming from the ship—to him it would always feel as if he were moving "up."

The other interesting thing is that *such a rocket could be built right now!*

●

Next Month: PARADOX PLANET, a Fantasy by ROGER DEE

Friend or foe, they dogged intruding footsteps . . .

THE SHADOWS

By LEIGH BRACKETT

FOR COUNTLESS numbers of its years there had been no sight or sound or sense of man upon the world of the little blue star. But now, without warning, a remembered thing had come suddenly into the air again—a quiver, a subtle throbbing that meant only one kind of life. The Shadows felt it, the Shadows that had waited so long and patiently. They began to stir among the ruined walls. They rose and shook themselves, and a soundless whisper ran

among them, a hungry whisper, wild and eager. "Man! Man! Man has come again!"

THE GALACTIC SURVEY ship lay in an expanse of level plain, ringed on one side by low mountains and on the other by a curving belt of forest. A river ran across the plain and there was much grass. But nothing cropped it, and there were no tracks in the mud of the river bank to show that anything had.

Hubbard sniffed the warm air and dug his feet into the soil, which was rich and dark. He grinned broadly. "This is something like it," he said. "A pretty world. Real pretty."

He was a young man. His field was anthropology, and this was his first voyage out. For him, the stars still shone brightly. Barrier looked at him between envy and sadness. He said nothing. His gaze roving off across the plain and the forest, studied the sky—a suspicious, sombre gaze. He was old enough to be Hubbard's father and he felt every year of it, pressed down and running over.

"Of course, the colors are all wrong," said Hubbard, "but that's nothing. After they'd lived with a blue sun for a while people would think it was the only kind to have."

Barrier grunted. "What people?"

"Why, the colonists, the people that will live here some day!" Hubbard laughed suddenly. "What's the matter with you? Here at last we've found a beautiful world, and you're as glum as though it were a hunk of dead rock."

"I guess," said Barrier slowly, "that I've seen too many hunks of dead rock, and too many beautiful worlds that—"

He broke off. This was no time to talk. In fact, it was not his place to talk at all. If he didn't like what he was doing any more he could go home to Earth and stay there, and leave the stars to the young men who had not yet lost their faith.

The mountains, the plain, and the forest were very still in the bright blue morning. Barrier could feel the stillness. No wing cut the sweet air, no paw rustled the tangled grass, no voice spoke from among the curious trees. He moved restlessly where he stood, looking rather like an old hound that scents danger where there should be game. That was Barrier's job, his science, the oldest science of mankind—to venture into strange country and feel the invisible, sense the unknown and survive. He was head of the Ground Exploration team, and an expert on exploring. He had been at it all his life. Too long.

Hubbard said, "I wish Kendall would come back. I want to get started."

"What do you think you're going to find?"

"How do I know? That's the fun of it. But on a world like this there's bound to be life of some kind."

"Human life?"

"Why not?"

Again Barrier grunted, and again he said nothing.

They waited. Other men were scattered about the plain and the river bank, taking samples of soil, rock, water, and vegetation. They stayed close to the ship, and all were armed. The technical staff, after checking solar radiation, atmospheric content, temperature, gravitation, and the million and one other things that go to make a world habitable or otherwise for Earthmen, had rated this planet Earth-Type A, and in obedience to Survey ruling the ship had landed to determine surface conditions. So far, they had all been favorable. So far.

Barrier fidgeted, and listened to the silence.

PRESENTLY a speck appeared far off in the sky. It gave off a thin droning, coming closer, and developed into a small 'copter which settled down beside the ship, a gnat alighting beside a whale. Kendall and his observer and cameraman got out.

Barrier went up to him. "What did you find?"

"More of the same," said Kendall, "and nothing in it. Except—" He hesitated.

"Except what?"

"Over there beyond the forest. I thought it might be the ruins of a city."

"There!" cried Hubbard. "You see?"

Kendall shrugged. "The boys said no, it was just a bunch of rocks grown over with the woods. I don't know. You can decide for yourselves when you see the pictures."

The men who were out on the plain and the river bank had come running up. They were all young men, like Hubbard. Only the Captain, the chief of Technical, a couple of research scientists and Barrier were old. There was an uproar of voices, all talking at once. The Survey ship had made few landings, and it had been a long time since the last one. They were like youngsters let out of confinement, bursting with excitement and pride at what they had found.

Barrier went with them into the ship, into the main salon. There was a brief wait while the film, which had been developed automatically on exposure, was fed into the projector. The lights were cut. The small screen came to life.

They all watched, with intense interest. The panorama unfolded in natural color, like and yet unlike Earth. On closer inspection, the forest trees were not trees at all, but monstrous flowers with stems as thick as trunks, bearing clusters of brilliant and improbable blooms. Barrier caught a glimpse of something that might have been a butterfly or a drifting petal, but other than that, nothing moved.

He asked, "Were there any signs of animal life?"

Kendall shook his head. "No."

Impatiently, Hubbard said, "The 'copter probably frightened it away."

"Frightened things run," said Barrier. "There's nothing running."

Hubbard swore under his breath, and Barrier smiled. It had become a personal necessity for Hubbard to discover life here, and no wonder. He had had very little chance to practice his anthropology, and the voyage was almost over. His insistence on animals arose from the fact that without them there were not likely to be men.

"There," said Kendall, and held up his hand. The film was stopped, on a frame showing an area of tree-flowers and clambering vines rather more open than the forest proper. Humps and ridges of stone showed here and there among the tangled growths.

"You see what I mean," said Kendall, and gestured again. The film rolled, repeating the long low swings the 'copter had made across the area. "I got as close as I could, and I still couldn't figure it."

"It sure looks like a city," said Hubbard. He was quivering with excitement. "Look there. See how regular those lines are, like streets, with houses fallen down on either side."

Two other voices spoke up. Aiken, the expert on planetary archaeology, admitted cautiously that it might be a city. Caffrey, the geologist, said that it might just as well be a natural rock formation.

"What do you think, Barrier?" asked Captain Verlaine.

"Can't tell from the picture, sir. I'd have to examine the stones."

"Well," said Verlaine, "that seems to settle it. Make that area your first objective. Don't you agree, Cristofek?"

Cristofek, who was Chief of Technical, nodded emphatically. "And Barrier, in case it does turn out to be a ruin, make every effort to discover what sort of inhabitants it had and, above all, what happened to them."

Barrier stood up. "All right," he said. "Let's be on our way."

The seven men of his team joined him —all, like Hubbard, specialists, young men picked for physical condition and trained in the use of arms. Aiken and Caffrey were among them, also a lad named Morris who was in charge of the walkie-talkie. Barrier consulted Kendall about bearings, and then went with

the others to get his gear. Within a quarter of an hour they were marching off across the plain.

BARRIER felt a twinge of nostalgia so strong as to be a physical pain—nostalgia for the days when he had been green and eager like the rest, leaving the ship, which he hated, for the uncrossed horizons of new worlds, full of a shivering fascination, full of hope. The hope had been the first to go, and then the fascination.

Now, looking at the bright landscape, beautiful in spite of its unearthly tints, he found himself thinking that he would like to be in a certain bar he remembered in Los Angeles, not worrying about anything, not pondering meanings and significances and the shapes of alien leaves, forgetting completely the dark conviction that had grown in him over the years.

Schmidt, the entomologist, was chattering with Gordon, whose field was zoology, about worms and insect forms, of which many had been found. Hubbard speculated with Aiken on The City. They already called it that. The high grasses swished against their boots. The wind blew softly and the sun was warm. But apart from the eight invading humans there was nothing sentient to enjoy these blessings. Barrier disliked the empty silence. It was unnatural in such a lush and joyous setting.

His eyes roved constantly, grey eyes set in a face the color of old leather and surrounded by the complex wrinkles that come from squinting against numberless foreign suns. For a long time they saw nothing. And then, more and more, they narrowed and watched a certain sector to their left.

Barrier lifted his hand, and the little column stopped.

"Over there," he said. "Do you see those shadows?"

They all stared.

Hubbard laughed. "Cloud shadows."

"There are no clouds."

"Well, then, it's the wind making ripples in the grass." He glanced sidelong at Barrier. "What's the difference what makes them? They're only shadows!"

Barrier said heavily, speaking to them all, "Will you please try to remember that you are not on Earth? In a strange world anything, a shadow, a blade of grass, may be alive and deadly."

Their faces regarded him, intelligent, uncomprehending, trying not to show that they thought he was being a trifle ridiculous. He knew that they now felt hardened veterans of the star-worlds, with the vast experience of their four or five landings behind them, and all on planets that had had only normally dangerous life-forms. He could not make them understand the things he had seen, the inimical stealthy things that hated man.

He motioned them on again. They had already forgotten the shadows, but he had not. There seemed to be a number of them—how do you count shadows? Smallish clots of darkness they were that flitted along some distance away, losing themselves in the waving grass, difficult to see in the brilliant sunshine, but unmistakably there. They seemed to be running parallel with the men. They looked like perfectly normal shadows and Barrier would not have given them a second thought—except that in his experience a shadow must be thrown by something, and here there was nothing, not even so much as a patch of cloud or a bird's wing.

They marched on across the beautiful, empty, silent plain. And then, again, Barrier called a halt.

They had come to the edge of a stream that ran down toward the river, cutting itself a cleft in the soil of the plain. Caffrey immediately scrambled down the steep bank and began to study the layers of silt and sand and clay. Gordon followed him, casting back and forth along the edge of the water. He became vastly excited when he discovered a hideous small creature that resembled a purple prawn. Something else, that might have

been a snake or an eel, went off with a ropy slither between the wet rocks.

Hubbard danced up and down. "I told you there was life here!"

Barrier said gently, "I never denied it."

He glanced upstream. The shadows were bunched together, hovering over the cleft. They had not come any closer, but they were watching. He could not see with his eyes that they were watching, for they were only featureless blobs of gloom. But he felt it, in every nerve, in every pore of his prickling skin. There was something ugly about being watched by shadows.

ABRUPTLY, Caffrey began to dig like a terrier in the soft ground midway up the bank. Presently he held up an object like a blackened, broken stick that was knobbed at one end. He handed it to Gordon, who voiced a sharp exclamation and cried out for Barrier.

"It's a bone," said Gordon. "The leg bone of a large deer, I should say, or a small horse. You know what I mean, the equivalents thereof."

Hubbard was quite beside himself. "Vertebrate life! That proves that evolution here has followed practically the same path it did on Earth." He looked around, as though he expected to see a man materialize from among the rocks.

Barrier said to Gordon, "How old is that bone?"

Gordon shook his head. "It's been in the ground a long time. How long would you say, Caffrey?"

Caffrey squinted at the bank. "Judging from its depth under the present topsoil, I should guess five or six hundred years, maybe more. That's only a guess, of course. There are so many factors I haven't any data for."

"In other words," said Barrier, "a long time." He frowned at the ancient bone, and then at the deserted landscape around him.

Morris sent word of their find back to the ship. They marched on.

The shadows followed.

There were several miles of the flat grassland now between them and the ship. It lay glinting dully in the blue light, Leviathan at rest. The outposts of the forest, solitary clumps and little clustered groves of the giant flowers and equally lofty ferns, sprang up around the men, gradually screening off both the plain and the sky, until they walked in a warm blue gloom shot through with the brilliant spectral colors of the blooms.

At first they went slowly, on the watch for dangerous plant-forms. Apparently there were none. Hansen, the botanist, chanted aloud with wonder at every step. Schmidt was entranced by huge butterflies and numerous insects that crept and flew and made tiny buzzings. Gordon and Hubbard peered eagerly, but there was nothing for them to see.

Barrier walked ahead, going with a lanky noiseless stride like an Indian. His eyes were anxious, and his nerves on edge.

It was very lovely in the forest, with the blooms of many colors nodding overhead. Barrier thought of a garden at the bottom of the sea. The glades were full of blueness like still water. There began to be wisps of mist along the ground.

He thought for a time that they had lost the shadows. Then he saw them again, low down, slipping along between the rough, pale flower-trunks. They had changed their formation. They were all around the men now, in a circle. They had come closer. Much closer.

Barrier made the men bunch up. He pointed out the shadows to them, and this time they were less inclined to shrug them off.

"Better let me talk to the ship," he said, and Morris clicked the switch on the walkie-talkie. He did that several times, repeating the call letters, and then he shook his head.

"Sorry," he said nervously, "I'm blanked out. There's some electrical disturbance, very strong . . ."

Barrier glanced at the shadows. Creatures of force? They must be, since they were not solid matter. Electronic discharge from their bodies might well disrupt the small transmitter.

He considered turning back. They were now about equidistant from the ship and the area of the possible ruins, and if the shadows had anything evil in mind, turning back could not stop them. The ship was well out of reach. Besides, he had his orders, and if these shadows were a native life-form, it was his duty to find out about them.

They had made no hostile move as yet. Hostile or not, could shadows hurt men? And if so, how did you fight them?

The ground mists were thickening. They must be approaching swampy ground, although he had not noticed any on Kendall's films. Tenuous wreaths and veils hung in the blue glades, each separate droplet glittering with diamond fires in the filtered sunlight. The breeze rippled them to and fro very prettily. They were not fever mists. Barrier forgot them, returning his watchful attention to the shadows.

Within the past few minutes they had drawn their circle in until they were only a few feet away from the men. They glided round and round, utterly silent, in a kind of nervous dance. The men were all watching them now. Hubbard spoke to Barrier, and his voice had an edge of fright.

"What are they? What do they want?"

"They're only shadows," said Barrier irritably. "What does it matter what they want?" Then he called out to the others, "Keep together. If things get rough we'll turn back. But no matter what happens, don't bolt. If you do, there won't be any way to help you."

THEY WENT on, treading on each other's heels, staring around them. The shadows wove and bounded. Quite suddenly, Schmidt screamed. His gun went off with a snarling hiss. It flared again and again into a clot of darkness, which did not flinch.

"It touched me," Schmidt shuddered. "It touched me!"

He began to run, not very far, because there was no space within the ring of shadows to run in. Barrier caught him by the arm.

"Shut up," he snarled. "Shut up!"

Schmidt stood shivering. "It was cold. Cold as death."

"You're not dead, are you?"

"No."

"You're not hurt?"

"I—No."

"Then shut up." Barrier glared at Schmidt, at the others. "The next one of you that panics, I'll knock him flat."

He was afraid himself. Miserably afraid. But he said, "They haven't hurt us yet. Maybe they can't. Anyway, let's wait a while before we blow our tops."

The young men swallowed and straightened their faces out into stiff lines and tried hard not to see the shadows. Schmidt twitched as he walked. Barrier wished there was a sound in the forest. A squeak, a grunt, a roar that meant something warm-blooded and alive. There wasn't. Even their own footfalls were deadened on the soft ground.

The mists thickened, sparkling, bright. The alien sun was blotted out. The shadows skulked and clung. Sweat poured down the cheeks of the men, stained their drill jackets. Hubbard said, licking his lips, "How much farther?"

"Another mile or two."

Barrier wished the mists were not there. They made him feel shut in and suffocated. He worried about bogs. The blue daylight was maddening. He thought of the honest yellow glare of Sol and wondered what madness it was that sent men out to the ends of the galaxy seeking other suns.

He stumbled suddenly, and looked down. At first he thought the obstacle was a rounded stone half buried in the mold of fallen petals. And then he knew it wasn't. He stooped and lifted it up

and held it out to Hubbard.

"You wanted man," he said.

Hubbard rubbed his palms up and down along his thighs. He stared at the thing in Barrier's hands, and the others stared over their shoulders, and the thing grinned at them with a single gaping line of teeth.

Hubbard reached out and took it.

"It's very old," he said. "As old as that." He pointed to Gordon's trophy.

Schmidt said in a curiously shrill voice, "There were men here once, and animals. Now there aren't any. They're all dead, and I know what killed them." He stared hard at the shadows.

Barrier swore. "That's fine talk from a scientist. I thought you people were trained not to jump to conclusions."

Hubbard muttered, "Barrier is right." He looked at the skull and repressed a shiver. "Come on, I want to see those ruins."

They went on, so close together that their shoulders rubbed. The mists grew denser and brighter and heavier. The men sweated, ignoring the shadows, desperately ignoring them.

Without any warning, the shadows sprang.

There was a moment's terrible screaming from the men, and then there was silence, and after that a few stifled, horrid sounds. The skull fell from Hubbard's grasp and rolled away, grinning a wise grin as it went. Barrier swayed where he stood, clawing blindly with his hands at his own flesh.

He could see the others. Through a veil of shadowy gloom he could see them, dimly, and the gloom was behind his eyes and not before them. Some of the men had tried to run, and the shadows had caught them as they ran. Two of them kicked and grovelled on the ground. Their outlines were indistinct, blurred over. Their eyes were crazy. So were Barrier's.

The shocking swiftness of that leap, the noiselessness, the awful cold that poured in suddenly upon the flesh—the loathsome sense of an intruder grasping at mind and body, taking them over *from within*. . . .

It was inside him. The shadow was inside him. Its icy substance interpenetrated his warm and living flesh, its alien and unreadable intelligence was clinging tight against his own, and it was shaking him, driving him, and he was going to die. . . .

They're dead, all the men and animals, and I know what killed them—Schmidt was gone, plunging off into the mist, taking with him the terrible invader in his flesh. There were still shadows, a lot of them, running loose, for there had not been enough men. Some of these went after Schmidt.

Barrier forgot his orders, his command, his pride. Blind black terror overwhelmed him and he ran. He wanted to outrun the thing that held him, to shake it free and lose it utterly, and go on running right off this filthy blue-lit world. But he couldn't. It was part of him. He would not lose it till he died.

He ran, through the silent forest, where the nodding blossoms were shrouded thick in mist and the flower-trunks were hidden, and there was nothing but himself and the nightmare that dwelt in his flesh, and a darkness in the air around him.

Several times he fell, but something forced him up and on again. He had lost all track of the other men. He had almost forgotten them. Once, far off, he heard a shriek and knew that someone was dying, but he did not care. His mind was lost inside the shadow.

He was only distantly aware that suddenly the mists were gone and he was staggering over ground that had once been cleared but now was overgrown, though not so thickly as the forest. He stumbled among stones, reeled and scrambled around great hummocks from which peeped shattered cornices, and crossed an open space where his feet brought forth a sound of dry sticks cracking. He looked down and saw that the sticks were human bones.

He sobbed and turned his head to see the little group of shadows that hovered at his heels.

"Are you waiting your turn?" he yelled at them, or tried to yell, and made only a hoarse whispering. His face, so strangely blurred and dimmed, twisted into an insensate mask of rage. He bent and picked up the old bare bones from around his feet and threw them at the shadows, and cursed, and sobbed, and then he ran again, five paces, ten, across the crackling open space, and there was a hummock too high to climb and too wide to go around. He butted himself against it, into a knee of stone that thrust out between the creepers, and then he fell. His body jerked convulsively, and was still. . . .

HE WAS looking at a moon. It was a red moon, small but very close. There were mountains on it, and gouged-out hollows. His mind made idle pictures of them, a face, a crouching rabbit. There were stars. He did not recognize them. Presently another moon came up, a larger one, and pallid-green. He tired of making pictures on the moons.

Someone was moaning, close at hand.

Mildly curious, Barrier turned his head. He saw a man, lying curled up with his knees against his chest and his arms clasped over his head. He seemed to know the man. He studied the partly visible face. Of course he knew him, it was young Hubbard, who had been looking for men. . . .

Barrier sprang up. Cold sweat burst out on him and his body trembled, standing rigid in the moonlight. He searched inside himself as a man will search for a remembered pain, sick and praying not to find it.

It was gone. The shadow was gone. He clutched at Hubbard, and saw that the unholy dimness had left his features. He shook Hubbard and shouted at him, and then he saw that there were other men huddled on the ground, two, three, four of them. He ran from one to the other, and they looked up at him with empty, frightened eyes. Schmidt was not among them, nor Morris.

Six. Six living out of eight. And the shadows had gone away out of their flesh.

For one short second he was hopeful. Then he looked out across the open space where the bones were and saw the company of dark and restless blots that moved among the spiky ribs and tumbled, careless limbs. He almost laughed that he had considered hope.

He returned to Hubbard. "How did you get here?" he asked, and slapped the young man's face until he answered.

"I don't know. I—just ran." Hubbard gave a racking shiver. "Oh God, Barrier, that thing inside me just like smoke blows through a bush, and *cold*. . . ."

Barrier slapped him again. "Where're Schmidt and Morris?"

"I don't know."

Barrier set about getting the others on their feet. None of them knew precisely how they had gotten there. None of them knew what had happened to Morris, but Aiken said:

"I saw Schmidt. I was running and I passed by Schmidt lying on the ground, at least I think it was Schmidt, it had his specimen case still strapped around it, and it was dead. Oh yes, there wasn't any doubt at all about its being dead."

He turned away suddenly and tried hard to be sick.

Barrier said slowly, "So they finished off two of us, and brought the rest of us here. I suppose they want to complete the job at their leisure. So here we are. We can't communicate with the ship, and they won't send Kendall out to look for us before morning. And if we're still alive by then, and Kendall does happen to find us, and lands—what do you think *they'll* do about it?"

He glanced toward the shadows.

Nobody answered.

"I wonder," said Barrier at last, "if fire would keep them off."

The others stared at him. Then they

scurried about, gathering dead creepers, dry grass, anything that would burn. They made fires, a ring of them across the mouth of the cul-de-sac where they were caught. They waited, breathless with hope.

The shadows crept up toward the flames. Then, as though delighted with them, they began to flit back and forth around the fires, frolicking over and through them, almost, it seemed, playing tag among the columns of smoke.

Hubbard wept.

Mist was crawling up out of the forest. The small red moon was sinking, and the larger pale green one shed a ghastly light. The fires burned low and the shadows danced around them.

"They look real cute there, don't they?" said Barrier viciously. "Having fun."

The flames died down, became beds of embers. Some of the shadows began to make tentative small rushes toward Barrier and the five who were left of his team.

Coffrey whispered, "I guess they're coming for us." He still had a withered blossom stuck in his buttonhole.

The shadows darted nervously, toward the men and then back to the glowing red embers. Beyond them tenuous arms of mist advanced and coiled between the ruins. They began to obscure the remaining moon, and as the light faded the shadows moved more swiftly, with a greater eagerness.

Aiken had been rooting among the creepers that shrouded the hummock. Suddenly he bleated, "There's a passage here, a doorway. Maybe we could get inside and—and barricade it."

"Against shadows?" said Barrier, and laughed.

"It's better than nothing," Hubbard said. "Anything's better than just sitting here."

HE SCRAMBLED toward Aiken, who had disappeared, and the others followed. All at once, Barrier began to laugh. They stared at him, their faces round and startled. Barrier shouted at them, laughing.

"You still don't get it, do you? You still think you can run and hide, and put up little defences, and win out somehow in the end because you're men and man always wins out. You haven't learned yet, have you?"

"Learned what?" asked Hubbard, in a low, queer voice.

Barrier studied the shadows. "Why should I tell you, though? It took me half a lifetime and a lot of worlds to learn the truth. Why shouldn't I keep it to myself, and let you die happy?"

Abruptly, Hubbard sprang at him. He was like an enraged child, boiling with a confused fury of which the greater part was the fear of death. Barrier caught his wrists.

"You dirty yellow-belly," Hubbard squealed. "You're supposed to be our leader, you're supposed to show us what to do, and what do you do? You give up." He called Barrier a number of evil names. "The great explorer, the big brave leader, hell! You're just an old man with all the guts run out of you. You should have gone back to Earth and let somebody that could fight take over."

Barrier thrust him away, quite hard but without anger.

"All right," he said, "I'll let you in on it. Earth was a soft planet. Oh, she tried to put her foot down—ice ages, volcanoes, plagues, floods, droughts, and famines—but it was too late, and it wasn't enough, and now we've got the upper hand of her. But the other worlds are tougher. Sooner or later, they find a way. . . .

"We aren't welcome in the universe. I don't know why. Maybe it's because we aren't content to be the animals we are, but must always be pretending that we're something else, prying about and upsetting things, grasping after stars, making trouble and screaming because it hurts. I don't know. I only know that we're hated. Everywhere I've been, wherever there was a man, they'd been

gotten rid of somehow."

He glanced up at the alien stars, dimming now with the mist that rolled across them.

"They hate us," he said softly. "Their children hate us. Everywhere we have enemies, but never any friends."

Then he sighed. "You're right, Hubbard. I am an old man, with the guts worn out of me. You run on in and hide, now, and I wish you luck. Me, I don't like holes."

The shadows were hard upon him now. One brushed against him, and its touch was cold, cold as the bones that lay in the open space. Swiftly, so swiftly that none of the men could stop him, Barrier whirled and leaped through them, running like a deer.

He took them by surprise, the small dark blots that hung so close to him. He got past them, trampling on the brittle bones. And then the shadows followed, spreading out fanwise behind him, with three or four racing on to catch him.

He was some distance ahead of them. He heard Hubbard's voice shrieking after him, but not the words it said. He put out every ounce of strength that was in him, rushing between the heaped-up ruins, into the arms of mist that reached along the ground.

The shadows were closing in. But it was the mist that sprang.

It rolled around and wrapped him in, and where it touched his flesh he knew that the glittering droplets were not drops of mist at all but tiny flecks of life, separate, sentient, gathered together in formidable colonies of cloud. And he knew two other things, in that second when it was too late for knowledge—that the mist had not touched him nor the others in the forest, and that it had moved into the ruined city after them, against the wind.

Tiny flecks of life, glittering like powdered gems. And they hated man with a curious, inherited enmity.

There was a numbing agony in Barrier, an ecstasy of curious anguish that made his body twitch and dance. His throat convulsed, but no sound came out of it, and his eyes were filled with motes of fire. He tried to run again, and could not, and somewhere far away in another world, Hubbard was still shouting.

The shadows came. A broken thought went tumbling into the stricken emptiness of his mind—*They work together, damn them, and they both hate man.* Then there was the horrid cold, the alien presence sweeping through him, and this was death. . . .

The mists drew back. The tearing anguish left him, and the chill darkness that possessed him was somehow healing to his seared nerves. It was like being shocked with icy water, so that suddenly he could see and think again, even through the gloomy veil that dimmed his sight and mind.

The shadows leaped and swirled around him, and where they leaped the mists that were not mists at all drew back, sullen and reluctant, but coiling all the same upon themselves. And the shadow-thing that was inside of Barrier made him turn and go back toward the ruins, not fast this time, but slowly because he had been hurt, giving Barrier, in some unfathomable way, of its own strength.

The others came behind, a rear guard, dodging, weaving, pouncing on the stealthy tentacles of mist that sought to reach around them to the men who stood gaping by the great hummock. Here and there a glistening cloud engulfed a single shadow, and suddenly it was not.

Barrier's face, obscured by the dim aura, took on a strange expression.

He sat down at Hubbard's feet and the shadow left him, and they were as they had been before, the men, the shadows, the little beds of ash still glowing, and the wavering mist beyond.

Hubbard swore meaningless oaths meant to conceal his shame. "Were you crazy, Barrier? Did you think you could draw them all away from us?"

Aiken said, "He was trying to get away, to get a warning to the ship so maybe they could save us." He bent

over. "Barrier, listen. Barrier. . . ."

He paid them no attention. He was watching the shadows that hovered between them and the mist. A few of them were darting as they had before, from the burned-out fires to the men and back again.

"They want us to put on more fuel," he said slowly. "The fires help them keep the mist away." He turned abruptly to the others. "They saved me, did you see that? They came after me, and one protected me with its own body, and some of them died." He was shaking a little. "We were wrong about them. They were trying to help us in the forest. They followed us like—"

A word hovered on his tongue and he considered it, thinking of his boyhood and a small soiled terrier who had eaten his boots and loved him and once had interposed his body between Barrier and a fearsome hissing thing. It had only been a gopher snake, but the idea was the same.

"I think," he said, "that those shadows were the dogs, the protectors, of the men who lived here once. Different from our own, but trained to hunt down and turn aside enemies from their men. It was the mist that killed Schmidt and Morris, of course. We didn't keep together, and the shadows couldn't save us all."

The men stared at the shadows. It was hard to change their minds now, but they could not deny what they had seen. Their faces softened, just a little, losing some of the hard fear. Then Hubbard said:

"But what about *them*?" and he pointed at the bones.

Barrier shook his head. "Whatever killed them, it wasn't the shadows." His voice had an odd far-away note. His mind was very busy with something, taking it apart and studying the pieces intently and then putting it back together a different way. At last he smiled a little and went toward the shadows. He began to talk to them, putting out his hands, and they clustered around him, bounding up playfully.

"They must have been lonesome all this time," he said, "guarding their masters' bones."

Aiken said, "Down there in that passage—it's built of solid rock and hasn't crumbled a bit—there are some symbols cut in the wall. I haven't really looked at them, but—well, it seems as though all the people in the city gathered here to die at once, and it could be that they left a message or two in the strongest places."

"Let's look," said Hubbard.

They went down through the opening Aiken had found, all except Barrier, who was still playing with the shadow-dogs, and smiling. He was only mildly interested when they came back, Aiken and Hubbard both flushed and joyous.

"Those symbols," said Aiken. "They're pictographs, so simple and clear that anyone could read them. They must have hoped, those people, that someone would come along sooner or later. Anyway, they told what happened to them, or rather, what was going to happen. The planet had already entered the edges of a cloud that was death for lung breathers. That's why the animals died too, and only the lungless creatures lived. And Barrier. . . ."

"Yes?"

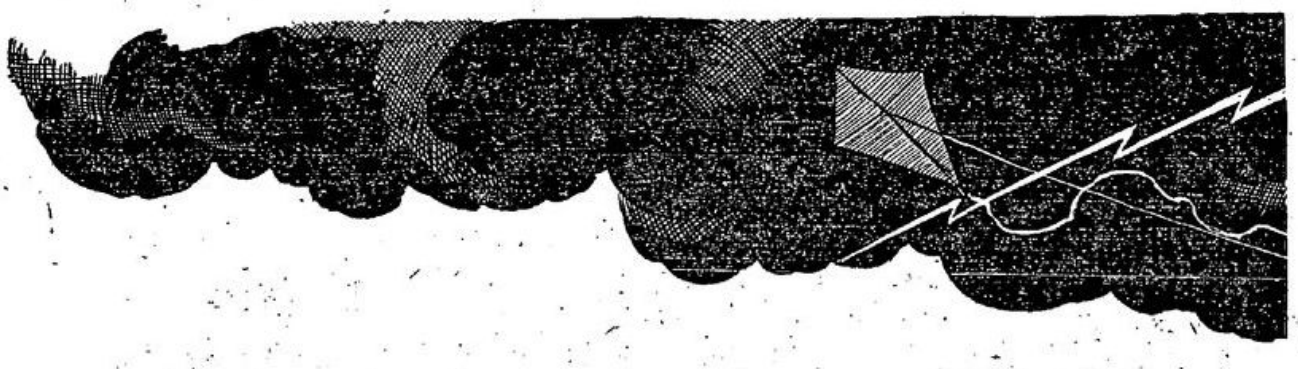
"They mentioned the dogs. They drew quite clear pictures of them at work, so that strangers would know."

Barrier nodded. He looked at the dark blots romping about his feet. "They've waited all this time. Well, they can wait a little longer."

Then he straightened up, still with that odd, wry smile.

"Seems like I spoke too soon," he said. "Maybe there's enough worth in us that here and there some little world will give us another chance. Anyway, it's nice to know there's one place where we have some friends."

They heaped fuel on the fires, and the shadows danced. Barrier watched them, looking somehow younger, like a man who has rediscovered hope.



A VIOLATION OF RULES

A Novelet by FLETCHER PRATT

For a very good reason, Silan Tronet broke a cardinal rule of Time Travel. For an even better one, they hunted him down . . .

I

THE two men already in the room stood up as the General entered; there was a sound of scraping as they pushed back their chairs.

"How do you do, General," said Dr. Follansbee. Hands were shaken. The General settled himself, produced a package of cigarettes, took one and shook another out toward the two professors.

"Thanks, I will," said Follansbee. "Dr. Brower doesn't smoke."

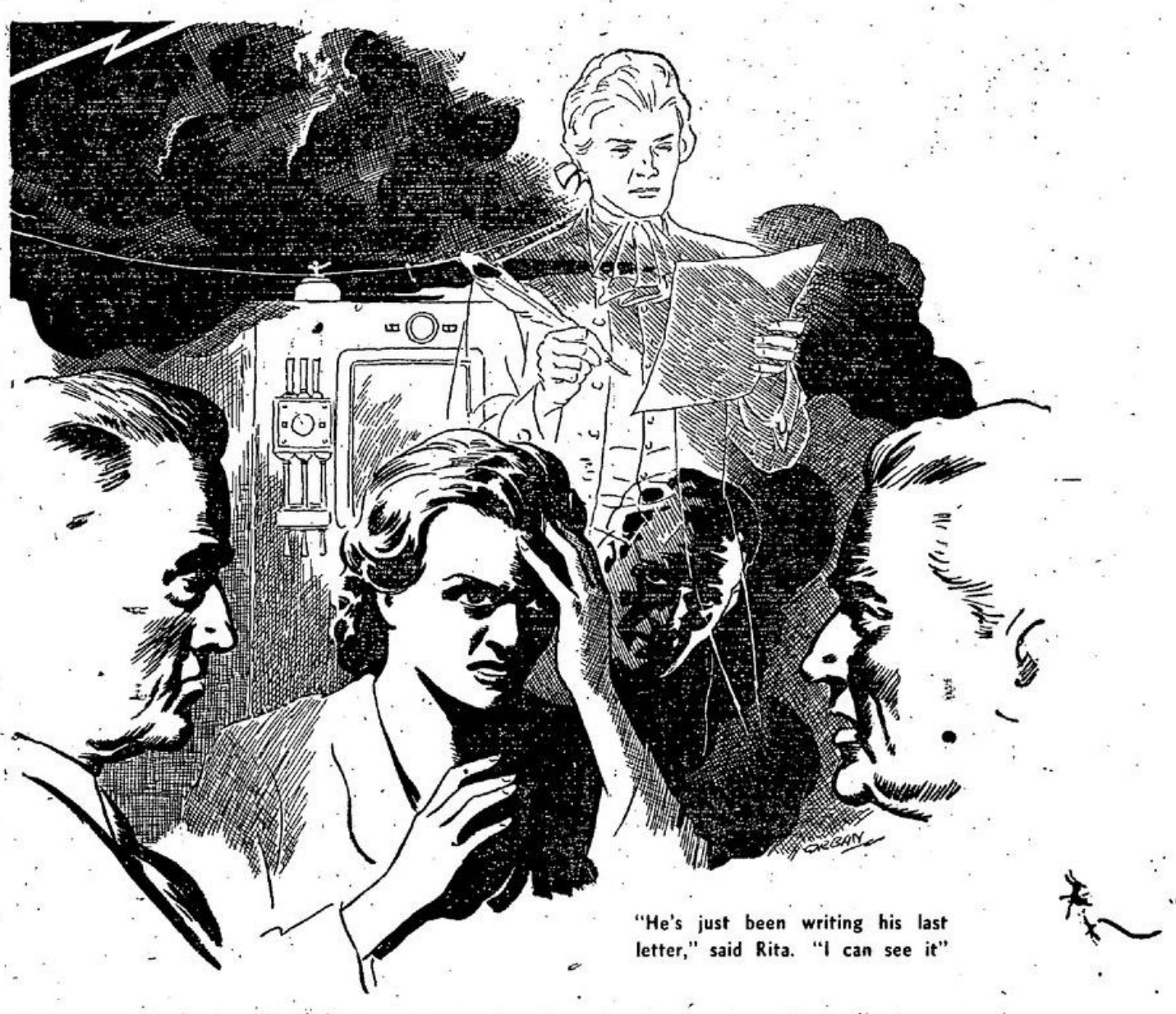
The General lit, drew and said: "I don't think there's any point in beating around the bush, doctor. Washington is simply dissatisfied at the results thus far produced by the Institute."

"In what way?" said Follansbee. His thick spectacles gave him an owlish look which was accentuated by the tufts of greying hair over each ear.

The General shrugged. "To put it baldly, the feeling is that too much of the effort is going into theoretical work, and the project isn't turning out enough devices of immediate practical value."

Dr. Brower cleared his throat. "Wouldn't you call the Queen's Stairs something of practical value, General Cooke?" he asked.

"I would; yes. The guided missile people agree that it's the greatest single advance in calculating the ranges, orbits and charges of rockets since the Ger-



"He's just been writing his last letter," said Rita. "I can see it"

mans invented the V-2. But you must admit that it's only a theoretical formula derived from the chessboard, not a practical device that you can take out and fire at the enemy."

"In other words, they want to see the wheels go round and red fire coming out of the end," said Brower.

"That's about the size of it," said General Cooke, with a slight smile. "And before you say anything about the military mind, which I recognize as the next point that's coming up, let me remind you that the Defense Department is paying the bills, and has a certain amount of right to say what it wants for the money. Theoretical research is fine for an academic or private foundation, but this is something else."

Dr. Follansbee sighed. "The trouble is that it's too often impossible to tell whether a given line of research is theoretical or practical," he said. "In any case, quite a lot of theoretical work must be done before any practical results are apparent."

"I believe we've been over that ground before," said General Cooke.

THERE was a little silence, in which cigarettes were stubbed out. At last Follansbee asked: "Did you have anything specific in mind, General?"

"Yes," said Cooke. "The Hargraves

reactor. I've been going over the accounts. It's extremely expensive, both in the power consumed and the amount of radioactives used—almost forty per cent of the Institute's total consumption of those items, in case you didn't know it. And so far, though it's been going for nearly six months, there's nothing to show for it. It isn't merely the Defense Department that pays the bills, you know. We have to get appropriations from Congress."

Follansbee pursed his lips. "The Hargraves reactor is one of our most hopeful projects," he said.

"On what grounds do you say that?"

Again there was a brief silence in the office of the Biochemical Institute, most secret of government projects. Finally Follansbee said: "I don't know that under the regulations I'm at liberty—"

The General said: "I am familiar with the regulations, doctor. Also the purpose for them, which is to cut down on the possibility of espionage by allowing as few people as possible to know the details of any device that has not yet reached the field stage. However, I remind you that everything in this project is subject to the over-riding authority of the military. For your own protection, will you switch on your recording device?"

Follansbee reached across the desk and snapped a key. As a slight humming sound came from the machine, the General put his face nearer to it, raised his voice and said, "This is Major-General A. P. Cooke. Dr. Follansbee, you will describe to me the nature, operation and results achieved with the device known as the Hargraves reactor. This is a military order."

Follansbee cut the switch again, glanced at Brower, then at the General, and blinked twice. "The Hargraves reactor," he said, "is designed for research into time."

The General started. "Fantastic!" he said. "If anyone else had told me such a thing, I would have said absurd instead."

"Nevertheless, it's true."

"You mean he proposes to foresee the future by mechanical means?"

Dr. Follansbee's eyebrows jerked and the owl-like ear tufts followed the movement. "I don't mean anything of the kind. As Hargraves himself has pointed out, such a device would be practically useless, because the future course of events in any given case would almost certainly be altered by the fact that we had some knowledge of them, and would require constantly recurring investigation. He is concerned with making exact determinations on the past."

THE General looked at Brower, who nodded in confirmation, then settled himself back and took out another cigarette. "You had better tell me more about it, as long as you've said this much," he said. "Do you mean he claims to be able to actually project himself into the past, physically?" His voice was slightly incredulous.

"No, not that either. Surely it's obvious that that would involve such a paradox as a person appearing in two different forms at the same time? As I understand it, his process has to do with tracing some of the results of thought, which was established as electro-chemical in nature by Dushak in 1954."

"But how does his reactor work?"

Follansbee's tufts wiggled again. "I don't know."

"You don't know? I thought you were the civilian head of the Institute, and familiar with all its projects."

"I am, and I am, General. Cleanthus Hargraves is a rather remarkable young man. When he came to me for permission to begin this project, I asked him the same question you have just asked me. He said he couldn't explain it in words, and proceeded to offer me a series of formulas—several pages of them. One seemed to grow out of the other logically enough, but I couldn't make any sense of them."

Brower cut in. "Don't be surprised, General. That's not an admission of in-

competence. It took years for the best scientists of the world to work out the implications of the formulas in Einstein's special theory of relativity, and they haven't yet worked out all those for the gravitational theory. I'm a mathematician, but I admit that Hargraves' formulas leave me even more baffled than Dr. Follansbee."

General Cooke frowned. "I suppose I'll have to take your word for it that he was very plausible," he said. "But what about the construction of the reactor? Didn't you follow the steps? Don't you know how it is put together?"

"No," said Follansbee. "He invoked the regulations against communicating current projects except on order, and I didn't feel like giving the order. After all, it would accomplish nothing but the satisfaction of a certain curiosity on my part. I had Dr. Brower check over the formulas, and he assured me they were mathematically logical, which seemed to me reason enough to go ahead."

Cooke said: "But who built the thing? The workmen—"

Follansbee smiled a little. "There was only one beside Hargraves himself. My daughter."

"And she hasn't seen fit to tell you any more about it?"

Follansbee lost his smile at the General's tone of voice. "General Cooke," he said, "have you ever had a daughter with two Ph.Ds., who knows more about half-a-dozen sciences than you do? Or to put it in more understandable terms, do any of your daughters outrank you?"

Cooke grinned. "I only have one, and thank God, the only science she's interested in is getting a white rubber ball across a net in time to prevent a return to the backhand. Excuse me; it's just that your scientific procedures seem rather casual to an arbitrary military man. I presume Hargraves would explain the reactor to me if I ordered him?"

"I presume he would. But with all due respect, General, I doubt if you could understand the explanation any better than I did—or Dr. Brower."

THE General said: "All right. Let's leave that for the time being and get back to the question I started with. Suppose the Hargrave reactor does work. Suppose it really does give an accurate picture of events in the past. I can see how it would be a great deal of value to a historian who wanted to find out where Captain Kidd buried his gold or the name of the Man in the Iron Mask.

Front and Back

THE paradoxes of time travel sometimes seem its greatest attraction. If you went back in time and killed your own grandfather, would you automatically cease to exist? Worse yet—you could not merely cease to exist, for that at least grants you did once exist. It would be necessary that you *never* existed, since eliminating an ancestor would make it impossible for you ever to have existed. And if you never did exist, how could you be there to go back in time—and so on. But these very mental gymnastics keep an author busy avoiding booby traps and keep many readers happy trying to find the holes in his logic.

Scientists who treat of time as a dimension have troubles too and sometimes those troubles are more troubles of success than failure. Fletcher Pratt's story is about a time machine which worked all too well.

—The Editor

But as a practical proposition for national defense, I can't see how it would be much use."

"I wouldn't say that," said Follansbee. "It's been of a great deal of use already. Remember the Sheppner alloy for bearings?"

"Yes, it's one of the real contributions the Institute has made. What has the Hargraves reactor got to do with it?"

"I'll tell you. The first lot of that alloy we ran gave the most marvelous results. It was practically impossible to burn the bearings out at any speed or under any conditions. But when the alloy went from test into production, it failed wretchedly. Sheppner himself went over and checked the fact that they were following his directions and proportions. He even came back and repeated the process himself, and got exactly the same result as he had with the production run. After we argued about it for a while, we decided he must have done something in making the original test lot that he was failing to do later. So I took the matter up with Hargraves, and he agreed to let me use the reactor to find out what it was."

Follansbee paused, with another wiggle from the ear tufts.

"Go on," said the General.

Follansbee said slowly, "I'm trying to arrange my memories to give you an accurate picture. The reactor is a rather large thing, set up in the basement over at Number Three. It has a self-sealing door and a big, comfortable chair inside, with a couple of electrodes in the arms. That's been changed, by the way, but Hargraves had the chair set up then. He had me sit down in the chair, put the electrodes on my wrists and told me to relax. Then he went outside, closed the door and I suppose turned on the current."

The General made a small sound, and Follansbee waited until he said: "What was the inside of this chamber like? Just a blank wall, or a lot of dials and gauges and things?"

"I forgot to mention that. Just in front of me was a window set into the wall of the reactor. Hargraves told me to keep my eyes on it. When he went out, something lit up behind the window and I was watching a ball of green and white light that turned slowly. I suppose it had a hypnotic effect. My arms began to feel numb, then everything went grey around me, and the next thing I knew—I was Sheppner."

The General looked hard at Follansbee. "What do you mean, you were Sheppner?"

"My mind was occupying the carcass of Charles Hackaberry Sheppner, and the calendar on the wall, when I got a look at it, said it was the 14th of August, last year, which was the date when he mixed the first batch of the Sheppner alloy."

GENERAL COOKE said: "I don't quite understand. Do you mean that you were Follansbee in Sheppner's body? That you could direct what he did?"

"Not exactly that. It's hard to explain. I was present with him rather as an observer. I could feel the things he felt with his fingers and even taste the pipe-tobacco he smoked—a revolting brand, by the way. But when I tried to turn him around to look at the calendar, there wasn't any response. Sheppner kept right on doing what he was doing. It was rather like being a ghost. Except for the tactile and other sensations, of course."

"I see," said the General. "An unusual and perhaps a revealing experience. Did you suffer any ill effects from it when you—came back?"

"None. Hargraves warned me that it had better not be attempted by people with heart disease, or with certain types of blood disturbances—leukemia-prones, he called them—but that otherwise there would be no danger, unless your—host got himself killed. He didn't say what the effects of that would be. I spent a reasonably uncomfortable day in the company of Dr. Sheppner and came back with the answer as to what had gone wrong with the alloy."

"What was it?"

"Very simple. You know that all those high-speed bearing alloys contain small amounts of the rare earth metals. So does Sheppner's. The supplies are kept in boxes in a cabinet, lettered with the name of the material. Sheppner intended to use holmium, number 67 in the periodic table, because it has no isotopes and is therefore very uniform. In fact, he wrote down the formula for his alloy that way. But when he reached for the box, he actually got a sample of the next one—erbium, number 68—which is a mixture of six different isotopes and theoretically shouldn't have been anywhere near as good for his purpose. Only it didn't work out that way. Erbium turned out to be just what was needed, and that was what he used in the test batch. Whereas holmium used in the production batch caused the other metals to crystallize."

There was another small silence, into which the General said, "I see" again. Then: "Has anyone else been through this experience in the reactor?"

"I don't know," said Follansbee. "Perhaps my daughter. She hasn't told me."

"Then I have a question. Why, if the thing has attained such a state of success, hasn't Hargraves announced it and submitted his formulas? Not that you actually know that, but what's your theory?"

A shadow crossed Follansbee's face. "I'm blessed if I know," he said. "Cleanthus is a good deal of a perfectionist, and when he showed me his formulas, he said they weren't complete, that there was something called the double reaction he wanted to account for. What he meant, I haven't the slightest idea."

"But you consider his project of value to the national defense?"

"Certainly. Look, General. What kind of a secret treaty have the Spaniards negotiated with the Argentines? We know there probably is one, but that's about all. We could have someone present at the signing. And who was the real head of that anti-American riot in Messina last month? I'm only a scientist, but I can think of a dozen uses, not all of them connected with espionage."

General Cooke pulled at a grim lower lip. "Yes, it would be about the best wire-tapping system ever invented," he said. "Well, I'll do the best I can for you back there in Washington. As I said before, there are a good many cases of hot pants over the lack of useful gadgets emanating from this place, and there's some disposition to ask for a change in the setup. We can take care of the people in the Department, all right, but the Congressional committees are harder to live with."

He stood up. Follansbee and Brower also rose, and the latter said: "Would you care to have dinner with us and look over the physical plant?"

"No, thanks. I have a plane waiting, and those sky jockeys get impatient. I'll look over your plant some other time."

II

AS the two men turned back up the steps after putting the General in his car, Brower said, "Did my ears deceive me, or was there a faint note of threat in that interview?"

"They didn't deceive you," said Follansbee dryly. "The threat was there all right. The only question is what he was threatening. I couldn't make out."

"Well, let's see what he could do. Number one—he could excuse one or both of us from further participation in the affairs of the Biochemical Institute."

"It's possible, but I think we can rule that out. He wasn't playing that tough."

"I agree," said Brower. "All right—he can make it an order to cut down on the Hargraves reactor. But I don't think he will after the buildup you gave it."

"No," said Follansbee slowly, opening the door. "I think I got him onto our side there. Perhaps too much. The only thing that worries me about that aspect of it is his springing a leak in the regulations. Now there are five people who know about the reactor instead of four,

and the chances of a break in any secret go up as the square of the number of people who know it."

"Speaking of which," said Brower, "I noticed you weren't altogether frank with the good General."

"What do you mean?"

"The thing we were talking about the other day. The change in Cleanthus."

"It wasn't any of his business. Besides, I'm not altogether convinced that the change is as important as you think."

They sat down, and Brower stretched a pair of long legs. "Oh, come. You know as well as I do that Cleanthus Hargraves was the most practical man we had in nuclear physics. I can remember you telling me yourself that the reason you wanted him here was because he never had a theoretical idea in his life. And he goes soaring off into the wildest theory of all, and you say there's no change!"

"Fred, you're a confirmed bachelor who's never been in love—"

"It's because I've been in love so often that I'm a bachelor."

"Don't interrupt. What I was going to say was that it's only since Cleanthus took up so hard with Rita that he began to be interested in the reactor. I'm no psychologist, but I can remember when I was first going with my wife. I worked all night and half the day to give Newton and Einstein some competition."

"M-m," said Brower, "I know it's love that makes the world go round and all that sort of thing, but that's just the point. Why should it hit him so suddenly, after he'd been here for three years?"

"As I said before, I'm no psychologist and don't pretend to know. What the devil are you hinting at, Fred? That there's something wrong with Cleanthus?" Eyebrows and ear tufts bobbed vigorously. "If you are, I wish you'd come out with it. I'm not only civilian director of this squirrel-cage, I'm also a father."

Brower's voice was sober. "Wrong with him? No. I didn't say that, or even think it. It's just—well, I don't know. I seem to be trying to say something just a little bit too big or too elusive to be able to grasp it myself—the result of one of those pricklings in the thumbs that can't be put into precise terms. You know as well as I do that in our business when something like that comes up, it usually means a discovery of some sort is just over the horizon. I'm just hoping that in this case, it won't be—grim for you and Rita."

"Go on."

"All right, I will. You remember Cleanthus when he first came here; nice, pleasant, practical red-headed chap who did his work well, and then went out and had fun. Solid workman, but no genius. All of a sudden this Rita business hits him, and it's like a star exploding into a nova. He turns out a formula that neither of us can understand, and builds a machine that will do the impossible, all out of his own head. His habits have changed, too."

"Yes," mused Follansbee. "I'm in a position to know that. He and Rita were at the lab half the night last night. Well—it's pretty deep for a father." He rubbed his jaw speculatively. "However, I don't think there can be anything very wrong with anyone who shows as much energy and ability as he does. . . But I would like to figure out what got Cooke's back up and what he intends to do."

Brower said: "Maybe we can. It seems to me that this is a chance to let Hargraves prove that his magic-box is practical. Let's go over and get him to put it on the trail of what stirred Cooke up in this business."

Follansbee's eyebrows shot up. "The morals of that particular form of eavesdropping—"

"Don't matter. Self-preservation is the first law of nature for any organism. That includes us. Let's go over to Three."

THE experiments carried on in Building Three were mainly electrical, and the two men had to circle around a transformer shed to reach it. The door was

open on the hall leading along to the first floor laboratories. In the jamb of the wire-screened glass door leading to the basement a bell had been installed, so recently that it was not painted over. Follansbee pressed the button and both men waited.

Presently there was a sound of feet on the stairs and a feminine voice said, "Who is it?"

"Me," said Follansbee. "An old father of yours."

"Oh." There was a click and the door opened. "Hello, Fred," said Rita Follansbee. "If I'd known you were coming I'd have dressed up." She looked down at her overalls, which at this particular moment showed distinct traces of grease, and stepped back to admire them.

Brower said: "I've never been in here since you got the reactor working," and started downstairs toward the eerie blue illumination of a vapor lamp.

"It isn't working now," said the girl, following them. "Clee's been trying a new series of circuits, and he can't seem to get them to come out right."

"The trouble with using Riemann manifolds," said Hargraves from the bottom of the stairs, "is that in practice you have to invent an entirely new science of mechanics for each quadratic. How are you, doctor? Hello, Fred."

Brower stepped across to the reactor, which reached nearly from floor to ceiling, with electric cables winding out of one side like the intestines of some metal monster. "Looks like the inside of a battleship," he said. "Do you mean to tell me you two built that alone?"

"The material isn't heavy," said Hargraves.

Brower stepped over to the front of the machine and peered through the plastic window into the dark interior, then studied the control panel, which was swung out, revealing an intricate series of connections behind. "I wish I understood half of what this is about," he said. "Mmm—why that looks like the setup they have on the big Lightning rockets for self-destruction in case they get off course."

"It—" began Rita, then suddenly stopped, eyes fixed widely on Hargraves and mouth making a little round O.

The physicist did not appear to notice her. "Did you wish to see me about something, doctor?" he said. His voice had taken on a sudden edge of chill.

Follansbee's eyebrows went up. "Well, yes—or rather Fred does. We had a visitation today, and I'm not too happy about the result." He sat down in the chair by the desk. "I . . ."

Brower said: "Let me tell it." He turned toward Hargraves. "The point is that the big brass in Washington is getting unhappy because this place hasn't turned out a death-ray or something of the kind. They had a star-spangled general over here this morning, applying the goosing-stick. He was particularly concerned about the amount of money your project was costing and the fact that it hadn't produced anything he could carry home in his pocket."

"I see," said Hargraves, and ran his tongue around his lips. He turned to Follansbee: "What did you tell him?"

Follansbee seemed to be experiencing some embarrassment. "Well—er, since General Cooke made it a positive military order, I was forced to tell him the nature of your project. I don't believe he'll carry it any farther, though. He's like most military men, almost fanatically security-minded."

"All the same—" said Hargraves. "What got him onto that line of thought? Have you ever given any hint, doctor?"

"Not the slightest," said Follansbee. "In all the reports and budget requests I have simply referred to 'the Hargraves reactor', and said it was progressing, or something like that. Nothing specific."

"As a matter of fact," said Brower, "we thought that perhaps you could help us on just that point. It occurred to both of us that somebody must have started this sudden interest of Washington's in the project. They've never behaved this way before, and we'd like to know who's behind it and what caused it. We thought

this was a good opportunity to put the reactor to practical use by going back to where this General Cooke was sent out on his mission, and finding out something about it."

Once more Rita started to say something and stopped with her mouth open, brushing back an errant curl of black hair from her forehead.

Hargraves said slowly: "I'm afraid I couldn't use the machine for that."

"It seems to me—" said Follansbee, and "Why not?" said Brower, both together.

"Well, I—just couldn't. If you'll look at the formulas—"

Brower said, "I've looked at those damned formulas until I'm blue in the face. They convey about as much as if you'd said abracadabra-fee-fum-fie. Will you tell us one good reason in plain English why, when the very continuation of the whole Institute is at stake, you can't use the one thing you've produced to help out? What the hell use is it?"

A muscle at the corner of Hargraves' mouth twitched. "Look here, Fred, I don't like your attitude very well. I don't propose to have you telling me what I ought to do. You don't even know—"

RITA FOLLANSBEE had taken a couple of steps toward Hargraves. Now she touched his arm. "Let's not fight, boys," she said. "After all, we're on the same team. I think I can explain it so Fred understands. Look, it's a matter of geography. We'd have to have your General Cooke come and stand in front of the reactor, and even then it wouldn't be too certain. Isn't that right, Clee?"

"Something like that," he said.

"But you didn't have any trouble reaching Sheppner that time," protested Brower.

"I know," said Rita, "but he was right here at the Institute, and your general isn't. Besides, the reactor's disconnected now, while Clee works in those new circuits. It would take a couple of days to hook it up again."

"Yes, that's it," said Hargraves. "That's it, exactly."

Follansbee sighed and stood up. "Well, I guess we'll just have to make out the best way we can without adventitious aids. Coming home in time for dinner, daughter?"

"I think so. There isn't any reason to stay late tonight, is there, Clee?"

"You go ahead," said Hargraves, seeming to relax a little. "I may have to stick around a while. This prospective interference is going to make speed important."

He turned back toward the reactor as though dismissing the whole subject, and the two doctors were left to make their way out with Rita's help.

When they reached the walk outside, Brower said: "I'd certainly like to have that story repeated in front of a lie detector. If there was ever a pair who were covering something up, it was those two."

"That was—somewhat my impression," Follansbee admitted. "I would venture that there was some explanation he was trying to keep from us, and Rita rescued him with one which was untrue, but which we were forced to accept. Tch—perhaps you are right in not marrying. One raises daughters and they only raise problems."

"But what gets me," Brower continued, "is what they could be holding out. And why from us? Both of us have supported that project to a fare-you-well. We've even squeaked the budget to buy him expensive equipment. And now he turns hostile on us and Rita backs him up."

"I imagine it's a case of love is a wonderful thing—" Dr. Follansbee smiled. "Well, what with these interruptions, I'm behind on that report on the Bender fuel. I suppose our only move is to wait until things sort themselves out."

He had less time to wait than he might have expected. Just as his late-working secretary was closing her typewriter, the telephone rang, a voice announced that long distance was calling Dr. Follansbee, and then:

"Hello, hello. Follansbee? This is Cooke, in Washington. I took that matter we were discussing up with the Weapons Experimental Board. No, I didn't give any details. Very cooperative. On my recommendation they're providing continuing funds. But they insist that one of their own men participate. You won't find him difficult. His name's Clark Segrist, and he's been on the Canadian electronics project. Be there in three days. I think you'll find him useful as well as ornamental."

III

RITA FOLLANSBEE set down her coffee-cup and said: "Father."

The Doctor laid aside his evening paper, looking up. "When my favorite daughter uses that tone it usually means trouble. Emotional or financial?"

She moved her shoulders. "Emotional, I guess. Father, I don't like him."

"I thought you were going to marry him."

"I don't mean Clee, and you know it. Of course, I'm going to marry him. I mean that new man, Segrist."

"He seemed all right to me. Rather a vivid personality in fact. Very well-informed and intelligent."

"That's just the trouble, father. He's too vivid, and too well-informed and too intelligent."

Follansbee smiled. "I don't think I've ever heard before of anyone being too intelligent for a research project as complex as the one you two are working on. And he was sent here by the Weapons Experimental Board, who are pretty careful about the people they pick."

"That isn't all, father. I think Clee's afraid of him."

The tufts over Follansbee's ears twitched. "Cleanthus Hargraves afraid of anybody?" he said. "What gave you such an idea?"

"Oh, the way they talked and acted. I . . ."

Follansbee cleared his throat. "Rita, I don't want to be the stern parent with a double Ph.D., and I haven't any intention of trying. But I think the time has come for a few confidences. For instance, I am convinced that the other day, when Fred Brower and I were down there in the reactor room with you, you weren't entirely frank about not using it to find out about the background of General Cooke's investigation."

She looked at him steadily. "I know. I wasn't."

"Why did you do it? Is it something you had to keep from your father, who is also"— he gave a little smile—"director of the Biochemical Institute, if I may remind you?"

"Cleanthus couldn't explain so you'd understand. It was something about the rules."

"What rules? I know of nothing in the regulations—"

"Not that kind of rules. The kind he has to follow or he wouldn't be here at all. The rules his own people make."

Follansbee made a little movement of impatience. "Rita, for a girl of your education and logical faculties, you are singularly incomprehensible. I had to examine Cleanthus Hargraves' background before admitting him here, and I know he was born in Princeton, New Jersey, went to college at Sheffield Scientific and has been in government service almost ever since. What do you mean by his own people? Did he tell you this?"

"No. It's just—well, I can tell what he's thinking."

"What!"

Now she hurried on. "He can tell what I'm thinking, too. I know it's crazy and possibly unscientific, father, but we seem to have a kind of case of double ESP on a mutual basis only. It isn't exactly telepathy, nothing as definite as that, because it doesn't come in words, only in impressions, feelings and pictures, and it doesn't work with either of us on anyone else. But while we were talking, that afternoon in Building Three, I knew that using the reactor the way you wanted to was against some rules that were made

elsewhere . . . it was like being in the reactor yourself and getting into someone else's mind in the past."

"I see." Follansbee was silent a moment. "Or perhaps I don't. Do you think that this is something that can have been induced by the use of the reactor?"

"No, it isn't. Definitely. It began before the reactor was built. Do you remember the time we drove over to the Richardsons' at Temple Hill, and I insisted on coming back the long way, through Bellevue? Well, I insisted because I had a perfectly clear mental picture of Clee there in the outskirts of Bellevue—his car was broken down, and he was wondering how to get back to town. Then—we came along and found him there. There have been lots of other times, too. It seems to work whenever either one of us is in trouble or upset about anything."

FOLLANSBEE was staring. "It ought to be subject to experimental verification," he said. "Certainly a remarkable case of double ESP if it's as you say. I wonder whether we could get a grant for further study."

"That isn't the point, father."

"Why not? I can think of nothing—"

"I said before it was this Segrist. Clee's worried and frightened about him, and—"

"And my daughter is suspending her status as a scientist because her interests as a woman are involved. Is that it?"

"I suppose so."

"Well, then, let's consider the whole problem logically, and begin by assembling our data. To begin with, I will accept as a working postulate the idea that an extra-sensory rapport exists between you and Cleanthus. I think it requires investigation and verification, but purely as a postulate it is no more difficult to accept than some of those in vector analysis." He paused and looked at Rita; she seemed less nervous.

"Now—Segrist arrived about ten this morning. Fred Brower took him to his living quarters in Obermeyer Hall and then brought him back to my office, where he showed his credentials and we chatted for a few minutes before going over to Building Three. Did anything happen during that time? Did you get a—message from Cleanthus?"

Rita shook her head. "I'm sure not. What has that got to do with it?"

"Since we have postulated the existence of an extra-sensory rapport between you and Cleanthus, we must not overlook the possibility of other rapports of the same kind. I then brought Segrist over to Building Three and introduced him. I did not myself notice any evidence of disturbance on his part at the time. When did it begin?"

Rita's forehead wrinkled with thought. "I think—no, I'm sure it was after you'd gone. They made a couple of remarks about what they'd been doing before coming here, and then Clee said something about the machine being one for investigating the possibilities of time. Let's see—no, I didn't get anything then. Segrist was just interested and excited, and asked what the principle was. Then Clee went to the safe and got out the formulas and handed them to him. Oh, I remember, now. Segrist began to read through them—he had his finger on the paper following them when Clee said, 'You see, it's a matter of Riemann quadratic analysis, or something like that. And then Segrist looked up from the sheets and said, 'Are you sure it isn't Von Hardekker analysis, Dr. Hargraves?' And then I got the most frightful jar from Clee! It startled him and I could feel he was frightened."

"Von Hardekker analysis?" said Follansbee, frowning. "I never heard of it. Are you sure?"

She nodded. "I noticed it particularly, because I had never heard of it either."

FOLLANSBEE got up and went to the bookcase. "Not in 'Who's Who in Modern Science'," he said after a minute, and took down another book. After another minute: "Nor in Bastrop's 'Makers

of Mathematics.' I don't have the German yearbook here, but I'm prepared to doubt that we'll find the name there, either. Hmm, then we have two indigestible and inexplicable facts. The mention of Von Hardekker analysis disturbed Cleanthus. He must be familiar with it, or he wouldn't have been disturbed."

"That isn't two facts, father; that's one fact and a deduction."

"My dear, you didn't give me time to state the second fact, which is chronologically the first. The other one is this question you brought up earlier, about receiving from Cleanthus something concerning the violation of rules which his own people make. I believe I quote you correctly. That is within our postulate and we must accept it as valid information."

"I forgot."

"Very well. Moreover, these two facts are of the same order, since their indigestibility consists in not according with information we previously had, or thought we had. Now either that information was erroneous, or—"

"Father! Aristotelian logic?"

"Hmmm . . . beg pardon. It's a useful tool, but I admit that in connection with our rather peculiar postulate, it might lead us astray. Well, then? We have two indigestible facts, and Segrist is evidently familiar with one of them. I think we may hypothesize he knows the other. . . . Rita, I don't like where this is leading us."

"I think I see," she said in a small, hurt voice.

"The questions that arise might as well be faced nevertheless. What are these rules that have been, or are in danger of being, violated? Who makes them? What does Cleanthus mean by 'his own place?' That is, if you interpreted his message correctly."

"That's in the postulate," said Rita, in the same voice.

"So it is. Well, let's move on to the next step. The suggestion that Cleanthus has violated some rule is very strong. It is made up of his obvious unease at the prospect of violating one at our requests, and a parallel discomfort at the appearance of Segrist, who is also apparently familiar with the rules, whatever they are. We had that by hypothesis, you will remember."

Rita made an unhappy sound and Follansbee came over to put a hand on her shoulder. "Don't forget, however," he said, "that the information we lack is not necessarily unfavorable. A rule which prevents Cleanthus from using the reactor for eavesdropping purposes clearly arises from a reasonably decent standard of moral conduct . . . though I don't suppose that matters too much when you're in love."

"It doesn't, father. I just don't want him to turn out to be—working against the United States, or something."

"I don't think you need to worry about that. If the postulate is correct, he couldn't have avoided worrying about it and so notifying you. And if it isn't, then you are probably being deceived by what you regard as messages."

Rita stood up. "That's Aristotelean logic, too, but I love you for it—" She kissed him. "Thank you and good-night."

She went slowly up the stairs. Dr. Follansbee sat down and took up his paper again; then, after his daughter had left, he put it aside, went into the study, closed the door, picked up the phone and asked for a number in Washington. When the connection had been made, he said:

"Ed, this is Walter Follansbee. You remember when I turned out that analytical camera for you on the government's time, you said you'd do something for me. Well, I'd like to collect. We have a new man in here named Clark Segrist, just arrived today. I want a check run on him. . . yes, I know the F.B.I. checks them to death, but they only take in the routine sources, and this looks like something special. . . he was on the electronics project in Canada. . . yes, the ten-dollar tour, including wife-beating and whether he pulled wings off flies as a kid.

. . . and if anything at all serious turns up, get the local security people here and don't even call me back. Thanks a lot."

He hung up and turned frowning back to the living room. As he reached the door there was a small cry from upstairs, and a moment later Rita appeared, still fully dressed.

"Father!" she said frantically. "Something's happened to Clee!"

He stopped short. "What do you mean?"

"I don't know. I can't tell. But I got something from him like a flash of light, and then it was all dark, and then I was looking across a meadow toward a river, just as though I was in the reactor."

"We'll see." He went back in the study, picked up the phone and dialed Building Three. After a moment, he said, "No answer," and glanced at his watch. "I don't think it can be anything serious, Rita, if you remain in communication with him. Probably some experiment he's thinking or dreaming about. Let's let it rest till morning. It's very late, and—"

His voice trailed away as he turned from the phone.

Rita wasn't there. The front door slammed.

IV

RITA ran down the stairs of Building Three, across the room to look in the window of the reactor. Only dimly visible behind the doubled plastic, Clean-thus Hargraves lay on the couch that had replaced the original chair within, his eyes closed. Rita gave a little gasp and turned to face Clark Segrist as he rose from the chair where he had been sitting. His dark face was so smooth as almost to be shiny; he had peculiarly brilliant black eyes.

The girl said: "How long has he been in there?"

Segrist glanced at the clock. "Eight hours and fifteen minutes. He started just after midnight."

"Didn't he tell you that so long an exposure was dangerous?"

"I don't remember. Is it?"

"Yes, it is—especially when there isn't anyone who understands the reactor to handle the controls. Why did he ever do such a thing without me here? What did he go back to look for?"

"I really can't say," said Segrist, coldly. "But I wouldn't worry about the controls. I'm quite familiar with this type of machine."

"I hope you're as good as you think you are," she said and turned to the instrument board. "Pressure okay, temp okay, radiation—" Suddenly the last of her composure vanished in a little scream, and she turned a distorted face toward Segrist.

"Don't you see what you've done?" she cried. "That lever! It sets the duration control for indefinite! He won't come back automatically, and he's been there eight hours already. We've got to get him out!"

Before she could grip the control levers, Segrist had flung himself across the room and clamped down on her wrists.

"Let me go! Let me go!" she panted, struggling. "I've got to get him out of there!"

Coolly he half-dragged, half pulled her away from the reactor. Suddenly her strength seemed to give out. She collapsed into the chair with her face on the table and began to cry.

Segrist stood over her, frowning. "Miss Follansbee—" he began.

"Oh, why didn't I stay?" she sobbed, shrinking from him. "I knew there was something wrong!"

Segrist looked down at her for a minute; then half under his breath, he said, "So that explains it. The crude form—" Then: "Miss Follansbee, forgive me for asking you a highly personal question. Are you—emotionally involved with him?"

She looked up. "Yes," she said. "Why should that make any difference? I'm going to marry him, if—if—"

Segrist glanced at the floor and then back at the girl. "I am sorry to hear it," he said. "But you are entitled to an ex-

planation under the rules."

She was recovering herself at dealing with a concrete problem. "What do you mean?" she asked.

"It is very unlikely that you will see the man you knew as Cleanthus Hargraves again. Oh—" he held up his hand as she started to say something—"there'll be a Cleanthus Hargraves in the same body, but not the one you are attached to. He is being punished for having broken one of the strictest rules of our society."

Rita Follansbee gave a little gasp. "I knew he had broken some rule, but there was another one he didn't, and—please, explain it to me."

The dark face was melancholy. "It is your right to ask. The rules also require me to avoid inflicting pain without reason, even emotional pain." He nodded toward the reactor. "Have you used that device?"

"If you mean have I been in it, yes. But only for a short time. Clee—Dr. Hargraves wouldn't let me—"

"Then you can realize what I say when I tell you that Hargraves had no right to build it; or rather, Silan Tronet hadn't. That is his real name."

SHE WAS WHITE; but composure had returned. "I think I see," she said. "You're telling me he used a reactor and came here from another time. But how—"

"Just a moment. Your assumption is correct. When the possibility of movement in time became a practical fact as the result of the Von Hardekker mathematics in the year 2122 of our era, which does not correspond to yours, the same process of analysis showed us that it contained one element of danger. This would occur if someone succeeded in going into the past and building a time-reactor there, and then succeed in the necessary alterations that would make it possible to penetrate the local future, the future of that past era. This would place such a strain on the whole time-continuum that the result might be the destruction of this galaxy and the entrance of an entirely new one into the cosmological cycle."

"I don't believe I quite follow that," said Rita.

Segrist tapped the pages of formulas. "The mathematics of it are there. Silan Tronet had no right to set those formulas down, either. Somebody might be able to understand them before Von Hardekker's time."

Rita shook her head slowly. "I don't think much damage has been done by the formulas," she said. "The people who have seen them can't understand them. Even me."

"That is fortunate. As a matter of fact, although we know approximately what is necessary to build a reactor that could penetrate the future, that also is among the lines of research forbidden by the rules. At least until the basic mathematical principles are more fully developed. In addition to his other violation, that is what Silan Tronet was doing here—building a reactor that would penetrate the future."

"I know," said the girl. "I helped him work on it. I think he was going to put me in it."

Segrist said: "I'm afraid I can see why. He fell in love with you. Regardless of the rules, he was determined to take you back into his own time. I'm sorry, but we can't allow the rules to be violated. It may seem hard to you, but too many other people are involved."

She was silent for a moment. Then she seemed to deliberately change the subject: "Would you mind explaining one thing to me? When I was in the reactor, I found that I could be in the other person's mind all right, but I couldn't control anything they said or did. The other person went right on doing the things she had done in the past."

"That is the background for our rules," said Segrist. "There is no control over the movements of the host body. But if the host mind is sufficiently intelligent, it is capable of being educated to a certain degree, of being persuaded to

think along certain lines. It only happens when the person from our time is peculiarly en rapport with the host, and can intensify the efforts of the host mind. It always places a strain on the time-continuum, of course, and when there is such an event, it is dangerous for anyone else to use a reactor in the same period. My arrival here is an exception."

"Isn't it dangerous, then? Why did you come?"

"It had to be done. Don't you see—" Segrist leaned forward, eyes sympathetic. "Our study of the time-continuum indicated a severe strain at this time and place. Silan Tronet, who is one of our best workers in Von Hardekker analysis, was sent back here to relieve the strain, and thus permit us in our own period to carry on further researches in the possible penetration of the future. Of course, no one in our time realized that it was Silan Tronet, using the really excellent mind of Hargraves, who had caused the strain. It's another case of not really being able to alter the past. He overstayed his leave, and I was sent to investigate. I consider it lucky that I was able to educate the mind I am using in time. He had almost completed the future circuits."

Rita lowered her dark head. "He wasn't really going to make the reactor public," she said. "Didn't you notice he built an automatic self-destroying mechanism into it? I—I think that after we went to your time together, he was going to let the machine be destroyed."

"An effort to keep within the spirit of the rules," said Segrist. "I'm sorry it can't be permitted."

RITA said: "But what will happen to him now? Why did you send him so far back, and for so long?"

"I don't know precisely what will happen to him now. Probably he'll live out his life in the mind of someone in your colonial period. I had to send him back to before the discovery of electricity, so that he couldn't possibly find a mind that he could educate enough to make the building of another reactor possible. We won't know for a day or more. You see, two minds have now gone into the past—Silan Tronet, and that of the Cleanthus Hargraves of this present. But as Silan Tronet has had much the longer journey, their reactions will be different, and the connection between them will probably break. Then the real Cleanthus Hargraves will simply wake up and walk out of the reactor, without remembering Silan Tronet at all."

"The real Cleanthus Hargraves!" said Rita, with a trace of bitterness.

"I admit it isn't certain," said Segrist, soberly. "The Cleanthus Hargraves of this time may not be aware of the necessity of staying within the reactor field. We have lost some valuable researchers in that way. In case that happens the body in the reactor will simply go into a coma and eventually die."

"I'm not quite sure I understand what you mean by a reactor field," said Rita. "A force field?"

"No—and yes. At the spot corresponding physically to this in the past, there is now a reactor field. Its physical extent is not great, and unless Cleanthus Hargraves stays within it, or gets into it at the moment the separation between him and Silan Tronet takes place, he cannot be brought back. If he is in it when the return control is turned on, he can't help himself. That was how we knew Silan Tronet was breaking some rule. He didn't appear in the reactor field when it was time for him to come back."

"I see." Rita was silent for a moment, with lines of strain around her mouth. Then: "Let me go to him and bring him back. Or send me with him."

Segrist slowly shook his head. "You're allowing emotionalism to overcome clear thinking. Don't you see that your position as a guest-mind in the past would be intolerable? You might not even know him."

Rita said, "I'd know him anywhere. I don't think you understand how humiliating it is for a woman to have to beg. . .

but I'm going to beg you anyway. In that wonderful future of yours, don't you give any thought, pay any attention to—to the desires and happiness of two people who are—in love with each other?"

"More than you do in this time," said Segrist. "We're faced with a declining population, and an absence of the impulse toward permanent relationships. One of the basic rules of our civilization is that nothing shall stand in the way of a truly matched couple. But the establishment that such a matching exists is a matter—"

The bell at the head of the stairs rang.

"Shall I answer it?" said Rita.

Segrist nodded.

She went up the stairs slowly and swung back the door. In the gap stood Captain Grissom, head of the Institute's security police unit, with two of his men. "You got a man named Clark Segrist here?" demanded Grissom. "Like to talk to him for a minute."

Segrist had followed to the foot of the stair. "I'm the one, officer," he said. "What do you want?"

Grissom pushed past the girl. "You're the Segrist that was on the Moosehead electronics project, aren't you? We'd like to have you answer a few questions about being a British agent. Nothing serious, just routine, but we have to make these checks, you understand."

"My God!" said Segrist, half under his breath. "I forgot they had nationalities in this period—" He swung to Rita. "Don't change the settings; I've cut in a secondary hookup, and you might lose both of them. All right, I'm coming."

V

RITA stopped pacing the floor, sat down and said: "And I guess that's all, Father."

"Most extraordinary, most extraordinary," said Follansbee, shooting his eyebrows up and down. "Though I don't know that it's any more extraordinary than the building of the reactor itself, or the fact it actually works. However, I am prepared to accept the provisional hypothesis that Segrist's statement was substantially true. I wonder what General Cooke will say. However, he has only himself to blame for sending a man here who turns out to be a British agent."

"I thought the British were our friends."

"They are." He smiled. "But one doesn't tell everything one knows, even to friends. They may not remain friends forever. As a matter of fact, I doubt the advisability of communicating Segrist's story, even to General Cooke. He may prove hard to convince."

"Father, what are we going to do?"

"Do? I don't see that there's anything particular to do but to await the course of events. When Cleanthus comes back—"

"Father, you don't understand. That's just the point. It won't be the same Clee. It will be the Clee who first came here, very nice and everything. But not my Clee—not Silan Tronet."

"I see. And you can't operate the reactor well enough to bring him back by yourself?"

"I'm afraid to. He's got some unlettered controls that I don't understand. And he may not be in the reactor's range, and there isn't a great deal of time."

"Did Segrist—?"

"It wasn't anything Segrist did or said. I've been hearing from him, from Clee. You know, just as I told you, as though I were in the reactor and looking through his eyes. . .that's why I stayed over there most of the afternoon. It kept coming to me in flashes, and I didn't want to miss any of it that might be important, so I stayed there. He's in trouble, father."

"What kind of trouble? What do you mean?"

"I'm not sure that I quite understand myself, but I know he's terribly worried and afraid he's going to die. I don't know why, but he was sitting in a room writing on a bare wooden table. I couldn't

make out very well what he was writing, because he made the letters so differently than we do now, but it was something about letting his books go to Alicia, like a will."

"Hm . . . do you have any clue as to what time-period he is in? It might conceivably be helpful."

"Some time in the 18th century. There are trees in bloom outside the window, and I don't think the streets are paved. There's some grass, and I can tell he has those funny knee-pants and long hose."

"Nothing more specific than that?"

"No—wait a minute. There was a book on the table. It was a 'Poor Richard's Almanack.' "

FOLLANSBEE smiled slightly. "I'm afraid that isn't much help. 'Poor Richard' was issued annually for about twenty-five years, if I remember correctly. Was there anything to indicate specifically what he was troubled about?"

"No. . . wait, there was a box at one side of the table. I think it had two pistols in it."

"I see. That could very well mean a duel, which would be well within the customs of the 18th century, and would account for a certain amount of concern about his future. Yes, yes. And I presume that if the host were killed, the guest would be just as dead as though it happened to himself: Did Segrist say anything on that point?"

"Not directly, father. Only that Clee—or Silan Tronet—would have to live out his life in the past. But Clee's so worried; he's trying to teach his host something—I think about electricity."

Follansbee said: "I'm afraid that won't turn out to be of a great deal of practical use. Even if Segrist is right and he has obtained entry to a good mind, the necessary apparatus and sources of current would hardly be available in the 18th century."

Rita said: "Father, I want to go to him. I'm sure I can prevent this duel, or whatever it is—and even if I can't, I want to be with him."

"I see. I will certainly not oppose it." He came over and laid a hand on her shoulder. "It's a matter of my daughter's happiness. Could you show Brower or myself how to operate the reactor to send you to join him?"

"I don't think so. Especially not the way it is now, with the new circuits Segrist built into it last night. I could only handle it for short time-jumps anyway, a week or so."

"I don't suppose you could build a duplicate? A Chinese copy of the original one? After all, you did work on it."

Rita shook her head. "There wouldn't be time even if I could; there's this worry about the host, and besides, Clee and Silan Tornet are apt to split apart. Segrist said so. And I'm not sure I could build one anyway. There are some of those bars and wires that seem to go right through each other. The ones that use the radioactive isotope metals."

"You think, then, that the only chance is to persuade Segrist to send you back there? Didn't he refuse before?"

"Yes, but things have changed since then. I thought perhaps—well, he's been arrested, and maybe you could get them to let him out or something, if he would."

Follansbee walked back and forth for several steps, hands behind his back and eyebrows and ear-tufts twitching. "You realize, don't you," he said at last, "that we're dealing with two quite different persons? The Segrist who belongs in our time-span might be quite willing to accept such a proposition, while the other one, the one from the future, would resist."

"I thought of that. I don't know which one would win, but from what he said, I think that the future man could accomplish things only when they are to the advantage of both guest and host."

"Hmm, let me think," said Follansbee, and resumed his pacing.

"There's another thing," said Rita. "I think there's a good reason why the Segrist from the future might be willing to accept. Our Segrist must have come here from some place where there is the

field of a reactor from the future. While he's arrested, he can't get back to it to return to his own time-span. And if they really find him guilty of being a spy, he won't ever get back."

FOLLANSBEE stopped, looking thoughtful. "You mean that the reactor field from the future ought to be somewhere up in Canada, where Segrist came from? Probably, probably. But if what he said is true, it must have taken him some time to educate the present Segrist, and he's been a good many places, so the reactor field might be almost anywhere. But isn't there another field through which this personality from the future—I forget his name—became the guest of Cleanthus Hargraves?"

"Of course. But—"

"But what?"

"There's something that doesn't quite fit, father. Clee—Silan Tornet—came here in a reactor placed in his own time—the future—but that reactor must have been very near here in *space*. Don't you remember, when Clee first came to the Institute, I—I didn't pay him any attention? It was only afterward, when I began to get messages from him, that we—fell in love. That must have been after Silan Tornet arrived from the future."

"Hmm, I concur. What is it that doesn't fit?"

"Segrist says that when someone is in the field and the operator from the future wants to bring them back, they can't help obeying—going back to the future. It seems to me that Clee must have found some way of breaking down or discounting the field he came in—perhaps it was the reactor he built. But anyway, the only field from the future that Segrist can really count on is the one he came in, so he'll just have to help us."

Dr. Follansbee pulled at his lip. "The more complicated this gets, the more complicated it gets," he said. "But I can see your point. However, there's just one other thing to be considered. You said the apparatus had an attachment for self-destruction. Won't Segrist use it?"

"I suppose so; even if he does send me back."

"Has my daughter considered what General Cooke and the people in Washington would say to that? The reason Segrist was sent here was because they are already dissatisfied with the amount of money spent on the project without more tangible results. Now, to have the whole thing go to pieces without any more—"

"Oh, father!"

"I merely wished to mention it. However, since I am myself responsible in a sense for Segrist's incarceration—"

"How? What do you mean?"

"I fear I asked a friend of mine in Army Intelligence to look up some of his antecedents."

"I'm glad you did it, father. It gives us a chance to put some pressure on him—the only chance we have, if you'll do it. But I can't ask you to, if it means you're going to lose the Institute."

"I merely wished to call your attention to the matter. . . . the possible consequences for myself do not affect me in the least. I consider it unworthy of the dignity of a scientist to be influenced by such considerations; and besides, I have an offer to head up the new research department at the Day Chemical Company, which is much more attractive than what I am doing here. So put on your hat, and we'll go over to the security office."

Rita jumped up, ran across the room and put her arms around her father's neck.

"I don't care what happens, I just want to be with him," she said. "Am I terribly selfish?"

"Mmm—I think no more than normally so. However, you had better be provided with an extremely strong line of persuasion. The Hargraves reactor is a double-A project, and we must persuade Grissom to obtain access to it for a man who is under suspicion of espionage."

VI

FOLLANSBEE said: "It has doubtless occurred to you to wonder why we had you brought here. The answer is quite simple. We have brought you here to persuade you to send my daughter to the period where Cleanthus Hargraves is now."

He sat in the arm-chair by the desk. Rita was in the straight chair, her face reduced to a singular ghastliness by the vapor lamp. Segrist, his arms folded, stood just inside the entrance, while behind him Captain Grissom, one hand on his gun, scowled suspiciously.

Segrist said: "I fear I must decline. I'm sorry; but I have already told your daughter as much, and given her the reasons why I cannot do it."

"Has it occurred to you," said Follansbee, "that if you are jailed for espionage, you will not be able to reach the field of the reactor which is to pick you up?"

Segrist smiled. "I don't think I'll worry about that. In the first place, I haven't been convicted of espionage yet, and in the second, the only suggestion has been that I am spying for Britain. They won't jail me for that; they'll deport me."

Follansbee turned to Grissom. "Is that right?"

The captain nodded his head gloomily. "I guess so. That's what they usually do with those Limies, even when they're hotter than the grids of hell."

"I could look up the places you have been recently, and make certain you were kept away from them," said Follansbee.

Segrist smiled again. "You couldn't do it as a practical matter," he said. "And even if you could, do you expect, with the tiny smattering of knowledge you have, to compete with the scientific resources of an age several thousand years in advance of your own?"

Rita made a little sound, and Follansbee said: "Am I correct in assuming that the field by means of which Hargraves, or your version of him, reached this period, is now inoperative?"

"Why do you wish to know?" Segrist asked.

"I should think that would be obvious. We want to protect ourselves against any future visitations."

"You need not worry. This particular time-span will be closed off, not only by the rules, but for technical reasons as the result of the construction of this reactor."

Follansbee said: "Then if no further danger is to be anticipated, I cannot conceive the reasons for your objection to doing as we ask."

"I have already explained them in detail to Miss Follansbee, and I don't think it necessary to go over the ground again."

Follansbee stirred in his chair. "I don't understand why you take such a hostile attitude. Surely, we can discuss this question like reasonable men. Now, let me ask you this: I quite understand that it is against your rules to do as we wish. But since the reactor is already in existence, there can be no objection to letting me operate it."

Rita cut in: "Yes, why not, Mr. Segrist? I helped build it, and I know enough about it to know that unless you changed things a lot, it would be easy for you to cut in the self-destroyer, so that if it were used once, it never could be again."

One of Segrist's hands rasped his chin, and he appeared to consider. Then he said: "No. You're too much of a scientist. I can't allow you to handle something that might give you a clue to the Von Hardekker mathematics and their application. It mustn't be done in this time-span, which is already strained."

Captain Grissom said from the door: "The way I get it, Doctor, this creep is holding out on you. You want me to take him over?"

Follansbee shook his head, and Segrist said: "It wouldn't do any good. A knowledge of the essential mathematics is required."

FOR a moment there was a silence in the room, with the soft hum of power from the reactor. Rita leaned back in the chair and closed her eyes. Finally Follansbee said: "I presume you are equally immune to appeal on emotional grounds—but it seems to me that no civilization which prides itself upon its humanities, as yours appears to do, can afford to neglect the moral responsibilities in keeping apart two people who quite evidently belong together."

Segrist's face took on the expression of sadness that Rita had noted before. "You are expressing it pedantically," he said, "but this is quite the strongest argument you have offered. We feel deeply about such matters—in my civilization. But since your time, since this time-span, it has been discovered that the success of a union between two people is not merely a matter of attraction, which may be temporary. There are other and very strict, criteria. In fact, it is one of the criticisms of this time-span that its emotions are too shallow, and Silan Tornet is now suffering the penalty of having allowed himself to be carried away emotionally, without applying the tests we find necessary."

Dr. Follansbee's eyebrows wiggled, and he said: "The point is philosophically very interesting. What are the—"

Rita's eyes suddenly came open, and she said: "They're coming for him."

"Who?" said Follansbee.

"Clee—they're coming for Clee. Father, it is a duel . . . he's going to fight the lieutenant of a frigate, and he's almost sure he'll be killed, because the lieutenant is a dead shot. I—I can hear their feet on the stairs. Oh, can't we do something?"

She clutched her father's hand, but it was Segrist who spoke, with a note of astonishment and eagerness in his voice: "Miss Follansbee, do you mean to say that you can follow Silan Tornet's mind in the past?"

"Certainly," said Rita. "I always could. He's just been writing what he thinks is his last letter. I see it. Wait a minute." She put one hand to her head, and concentrated. "It goes like this: 'April 19, 1752. My Friend and Preceptor: I fear I have not many more hours of this desirable existence, and our experiments in physic must be deferred to a happier world. But before taking my undignified departure, I would have you consider whether it might not be that the electrical fluid in the Leyden jar be the same as that contained in a cloud of thunder. It seems to me that this might be established beyond peradventure by flying a kite of silken fabric, whose arms are supplied with metal points, and whose cord is also of silk, in such a shower of thunder, with something of metal at the lower end of the cord to collect the urgent fluid if such be the case. This is my testament. Farewell. Your unhappy pupil, Richard Needham.' There; now he's folding and sealing it. The address is on the outside; 'To His Excellency of the General Assembly, Dr. Benjamin Franklin.' Now he's giving it—"

Follansbee said in an awed tone: "Franklin flew his electrical kite in June, 1752."

"Yes," said Segrist. "I don't think there's much doubt that Silan Tornet began trying to educate his host, and was responsible for the discovery of electricity in that time-span, even if the credit went elsewhere." He turned to Rita. "But that isn't important now. Miss Follansbee, I won't send you to join him, but I can bring him back here." He smiled at her. "And I will."

RITA gave a little gasp, and Dr. Follansbee's mouth fell open as Segrist took three rapid steps to the control-board of the reactor and began rapidly handling levers and switches. "You and Silan Tornet are an ESP matched pair," he said over his shoulder. "There. We will know in five minutes whether the personalities have split."

"Would you mind explaining?" said Follansbee.

"Not at all. In our civilization, we

have discovered that while a certain amount of ESP may exist in individuals, it is only really effective when two people share it, and those two are a man and a woman. Every effort is being made to extend and develop it, and one of our highest rules is that no obstacles shall be thrown in the path of such a pair. You and he were truly made for each other."

Rita got slowly to her feet.

"Clee certainly must have known it," she said.

"Obviously. That was why he built the reactor and included the forbidden circuits. He knew he could not be punished when it was a question of attaining his ESP mate, even if he had to try to bring her out of the past."

"Why didn't he tell you, then, and save all the trouble?"

Segrist said ruefully, "I'm afraid that's my fault; I didn't give him much chance to talk, when I forced him into the reactor. But he knew the past could not be altered without the destruction of the whole continuum in any case, and he doubtless expected the error to be rectified."

One of the lights on the instrument panel winked out. The three watched breathlessly as the figure behind the plastic panel stirred, turned over slowly, and then, as though he were moving with infinite difficulty, got to his feet and stumbled toward the door. Rita flung herself on the handle, and the next moment they were in each other's arms, while Follansbee was blowing his nose loudly.

CLEANTHUS HARGRAVES looked over the girl's shoulder.

"Am I released, Proctor?" he asked Segrist.

"Not quite," said Segrist. "We cannot allow the future circuits. You know what that means?"

Hargraves tightened his arm around Rita's shoulder. "That if I want to be with her I shall have to stay in this time-span."

"That having found your ESP mate, you are condemned to stay in this time-span," said Segrist.

"But the reactor!" said Follansbee.

Segrist gave him a thin smile. "I told you you had only a smattering of scientific knowledge." He turned back to the reactor, made an adjustment and quickly pressed a couple of keys. Behind a panel at one side a blue light began to glow, and increased in intensity until it seemed to fill the room. Segrist put his face close to it.

"Destroy the body!" he shouted—and then turned suddenly and extended his hand to Hargraves. "Good-bye, Silan Tornet."

There was a click somewhere within the reactor. The blue light went out, to be succeeded by another, whiter light somewhere in the interior of the machine, and an odor of ozone. "Hey!" cried Captain Grissom from the door as, with a series of ominous sputterings, something like a flash of lightning shot across the interior of the reactor. The instrument panel seemed to detach itself, went crashing to the floor in a shower of sparks.

And Segrist raised both hands to his mouth, eyes wide, and back-pedaled away from the reactor. He brought up against a wall. He said:

"Where am I?"

Hargraves took one of Rita's hands. He said something, so softly that Follansbee didn't hear.

Rita said:

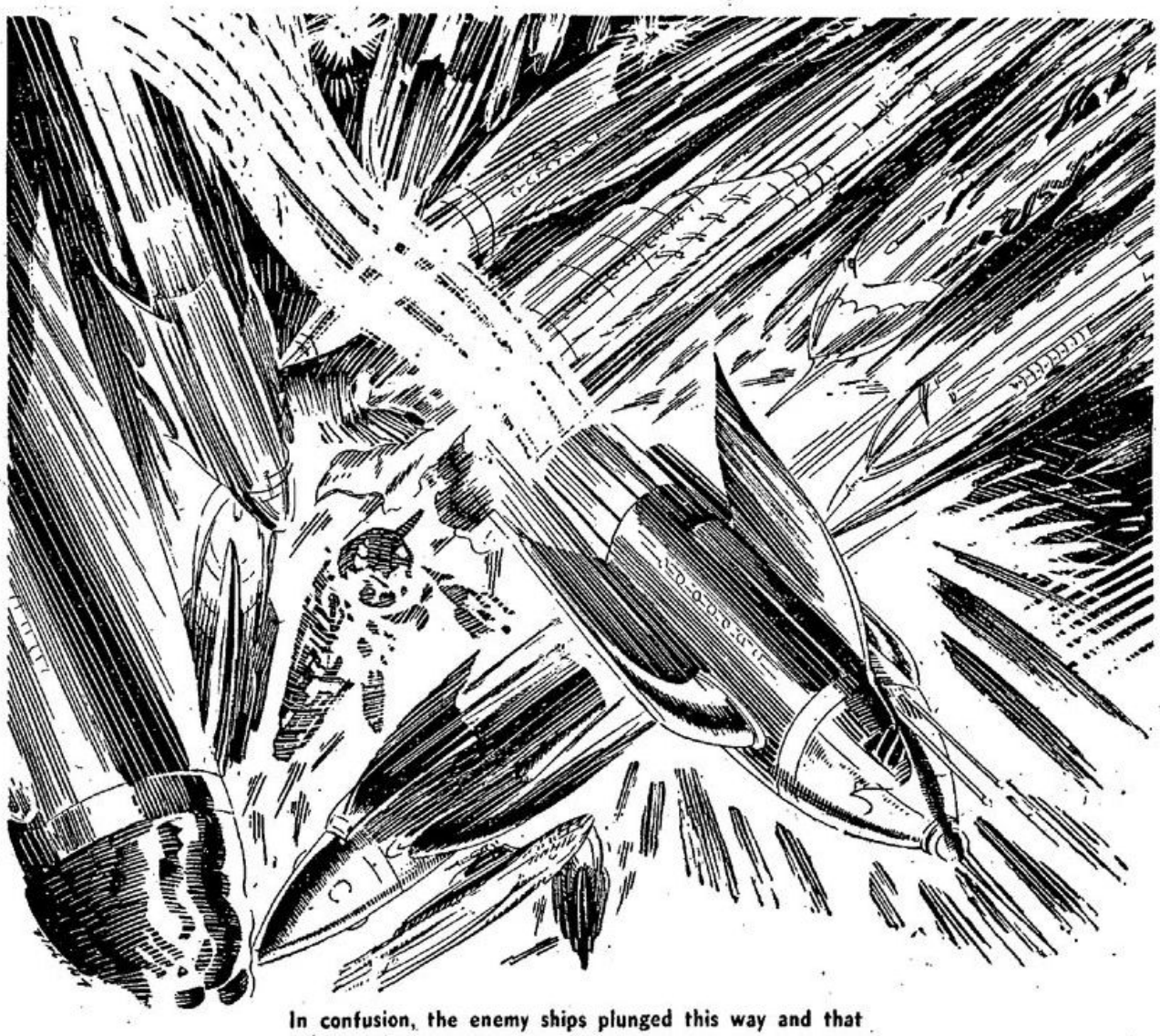
"Oooh! Now I see."

"You see what?" said Follansbee.

She groped for a chair. She sat down, still holding tightly to Hargrave's hand. "When they destroyed the body Clee had in the future, he forgot all the Von Hardekken math he needed to build the reactor. He just told me. And you won't get it out of Segrist, either . . . the field of the other reactor—*his* reactor—was right here all the time, and when this one broke, it could operate again. Segrist is—"

Segrist said again, plaintively, "Where am I? The last I remember—"

"—he's Segrist again," Rita finished.



In confusion, the enemy ships plunged this way and that

The First Spaceman

By GENE L. HENDERSON

Rogers was a hero . . . if only he hadn't come back alive!

THE SMALL group of people at the New Mexico rocket-launching site were grim-faced, silent. Their eyes went often to the tall, powerfully built young man who stood to one side, whispering to a beautiful girl. It was evening, and a chill breeze was whipping up. It caught the girl's blond tresses and blew them about. She frowned and caught them before they had blown too far.*(1)

Senator McCarney, a short and rotund little man, glanced nervously at his watch, then up at the General. The General nodded. The Senator said: "It's almost launching time, Rogers."

*(1) It is a well known fact that one of the effects of hard radiation during the first Atomic War was the destruction of the surface cells nourishing the hair of men and animals. In short, she was bald.

The young man turned from the girl and came to attention before the group. "I'm ready, sir."

The half-concealed tautness in voice-tones, the nervous twitch of the girl's lips as she reached again for her tresses, revealed the seriousness of the little drama.

"Rogers," began the Senator, "I'm almost at a loss for anything to say. You understand, of course, that the fate of the entire world depends upon you this evening?" He turned a little to the right, in obedience to the television crew's frantic gestures. "Your name will go down in history as the first man ever to pilot a fighting rocket into outer space—and you go in defense of not just a single country, but the entire world!"

The young man's square-cut jaw tilted up a trifle more in the strong glare of the floodlights. The dignitaries and technicians assembled sighed and shook their heads at the sight of the brave figure.

It had been only the day before that a harsh metallic voice had interrupted every radio and television program on the air. It had demanded that Earth surrender unconditionally within twenty-four hours or face complete destruction of all life. World leaders had immediately conferred.

Rogers was to be their answer to the alien threat.

The Senator's next words fell heavily into the silence of the evening—a soft silence broken only by the thunderous *RAT-TAT-TAT-TAT* of riveting in a nearby shop and the rumbling roar of heavy trucks as they poured supplies into the area. "It is regrettable that you should depart on what would seem to be a suicide mission . . . but it is a loss that we must face bravely."

Rogers shrugged his shoulders disdainfully. "My life is of no consequence, Senator," he said calmly. The girl gazed at him adoringly, then happened to notice a young engineer who stood at the control panel off to one side. He was trim, handsome, and he wasn't going shooting off into space . . . so what could be more natural than for her to move a little closer to him, unnoticed in the grim drama that was unfolding?

The Senator beamed. "I'm proud of you, son. And I am happy to inform you that the World Congress has passed a special resolution guaranteeing that your $10,000 government insurance is in force, and will be paid to your great-uncle promptly upon your demise."*(2)

A sudden, bright smile of incredulous surprise and delight broke over the face of Rogers, momentarily destroying his remarkable self-control. He stammered in confusion, "But sir, I, that is, I mean —this is more than I expected or deserve—"

"Nonsense!" declared the older man. "It is only fitting that the World Government should be generous at a time like this."

Rogers was almost overcome; he surreptitiously wiped away a tear that crept from the corner of one eye. In fact, he possessed but one eye, having been born a mutant immedately after the last Atomic World War. In school he had been nicknamed, "One-Eye." *(3)

"I'm off," shouted Rogers, eye flashing.

An eminent psychologist, who had been snoring at the side of the Senator during the speeches, snapped back to consciousness at the last words and glared hopefully and suspiciously at the assembled men and women.

THE WORLD'S first spaceman strode to the metal ladder that led up to the airlock of the rocket. There was a thun-

*(2) A hold-over from World War II which developed, some authorities maintain, a suicide complex in many members of the Armed Forces. As worthless live civilians, they were suddenly projected into a situation wherein they became worth a large sum of money as cadavers. The temptation became too great in many instances to resist gouging the government. Historians point out that this tendency continued well into the post-war period, particularly in the case of ex-soldiers with families. The period was known as "The Buckforapoundofbutter Age"—unfortunately, the meaning of this is no longer known.

*(3) During the period following the first Atomic War, mutants became rather numerous. "One-Eyes" were commonplace and at first threatened the very foundations of the optometry industry. Then "Three-Eye" mutants made their appearance and restored balance and stability to the industry.

derous ovation from the throng as he eased through the hatch.

He strapped himself into the chair before the control panel and quickly checked all instruments. There was a red cover marked DANGER over one switch, which he laboriously pried off; curiously, he threw the switch to the "On" position. Nothing happened. He frowned and slipped on a headset. Speaking into its mike, he called the ground-engineer:

"The manual switch that explodes the atomic warhead is not functioning."

"I know, sir," came the unhurried and smooth reply from below. "We thought you might be a little overeager to try it out. So at the last moment we installed a special relay, timed to remain open until you're at least one thousand miles from the surface of the Earth. Until then, the warhead cannot be detonated. Are your tests complete?"

"Yes," came the short, matter-of-fact reply from Rogers. He had always been noted for concise farewell speeches. Immediately there was a roaring sound and a slight rocking motion as the rocket slowly rose. Soon it gathered speed and was lost to the sight of those below.

The rocket rose far above the Earth and orbited in the ionosphere until it had attained escape velocity. Then it headed swiftly into outer space where the Invaders waited. Navigation out here became one of six directions rather than the ordinary four, which called for the utmost in skill and sudden decisions. Not only that, but the constantly increasing speed of the rocket must also be computed in relation to those six directions, if the rocket was to reach its rendezvous.

Rogers, however, was quite undaunted by the tremendous task thus posed to him. He casually reached over and switched on the automatic-pilot, which was fed by a punched metallic tape from the electronic computor. He smiled proudly, although the throwing of switches had always been relatively easy for him. *(4)

In no time at all, it seemed to him, the radarscope disclosed the shining fleet of alien spaceships that threatened the momentary destruction of Earth. There were at least a thousand of them, and he paled at the tremendous task that lay before him. With his rocket's atomic warhead he could carry but one alien ship to destruction with him . . . he shook his head. There must be a better way. Surely the superior brain-power and reasoning processes of an Earthman could find a way to destroy *all* of these marauders from another universe!

The waiting force insolently held its fire as the rocket approached . . . . and suddenly Rogers put on speed and was dodging in and among them. It was a brilliant maneuver. In their confusion, the enemy ships plunged this way and that, and in seconds had rammed and destroyed each other! All but one, that is. Nine-hundred and ninety-nine enemy ships had gone down together, leaving only one to battle the Earth ship.

The two spun and gyrated warily around each other until at last a lucky burst from an energy-beam of the enemy shot away the Earth ship's entire control-panel!

Rogers gazed blankly at the spot for a moment. Not only had the entire forward section of the rocket been shot away, but the warhead was also lost! This meant that he could no longer destroy the enemy. Fortunately, the ship's artificial gravity field still held the air within the hulk, else he would instantly have perished.

CLEAR thinking and instant action were required. Rogers tried to rise and found that his body would not respond. He became panic-stricken, thinking that the enemy beam must have paralyzed him. Then, to his relief, he saw that the safety straps were still

*(4) In Outer Space Navigation, it will become necessary to set up an entirely new, of which will in all likelihood lead to, in most cases. However—in Rogers' case—he had to, of course, in order that the spaceship, or rocket, would in the shortest time possible. It is probable that only spacemen will understand this technicality.

holding him fast.

There was a radio-tube rolling about on the cabin floor—blown from some of the missing electronic gear, doubtlessly—and he picked it up, examining it minutely. Not a sign of damage anywhere.

Frayed ends of wire straggled from the section of wall whereon the instrument panel had been mounted, and Rogers quickly tore several feet of it loose, along with a jagged piece of aluminum. The latter he stamped into a perfectly formed parabolic reflector, then took it over to the jagged rim of the hole in the ship. To the bottom of the reflector he affixed his wristwatch, after carefully resetting it to read "1:35 A. M." Then he coiled the wire about its rim. *(5)

Time was of the utmost importance. He drew back his foot and kicked the makeshift weapon through the opening in the side of the ship. It floated away, a speck of matter in the infinite reaches of space, unnoticed by the other ship. A few moments passed. Then the enemy ship shot out another beam of energy at Rogers' crippled ship; the deadly beam missed its mark, and struck instead the object that Rogers had constructed. Instantly a blinding glow surrounded it; a split-second later, the glow lashed back at the enemy ship. Both vanished without a trace. *(6)

Rogers inspected the remaining fuel and was dismayed to find only a small amount left. The rest had been burnt in maneuvering or lost by leakage when the bow, with its steering tubes, had been blasted off. He carefully fired one stern tube at a time until the ship took up a trajectory that would coincide with the Earth's orbit. Gravity would then draw him in, and perhaps there would be enough fuel left to make a safe landing.

At the thought of landing, Rogers frowned heavily. His professors—most of them high-ranking officers—had repeatedly stated that it was impossible to land the type of rocket he was now in. It had been originally intended for research into outer space, with all information to be relayed back by radar impulses. It was only at the last moment that necessity had forced slight alterations so that a man, namely Rogers himself, could meet the menace of the aliens.

This was truly a dilemma. If he should land safely and thus disprove the teachings of his professors, there was no telling what might happen. He might be confined to his quarters, even court-martialed.

The easy way, he thought glumly, would be to blast off into outer space and perish—a hero in Earth's history. But fortunately no true military man ever thinks in terms of doing things the easy way, else Earth might never have had a first-hand account of Rogers' amazing victory. As it was, Rogers decided to make every effort to survive.

With his watch disintegrated, time had no meaning to him; but it became readily apparent that the oxygen supply would not last until his return to Earth.

He carefully fed the data into the computor. The aswer came out: "Oxygen supply: 21 hours." Next, he had it figure out the time it would take him to reach the Earth's atmosphere. The reply was: "52 hours."

Rogers frowned. One figure was higher than the other! That meant he would run out of oxygen before he reached Earth . . . now he must find out *how long* he would be with oxygen before the end of the trip. The mathematical principles involved quite escaped him, so he decided to use the computor again. Carefully, he stated the problem to it.

In a matter of minutes he received

*(5) It is not surprising that Rogers could do all of this, since he had taken a special course in electronic engineering at the Space Academy. He graduated with the highest honors in his class. He was the only one in his class.

*(6) Readers of the "Preliminary Spaceman" will remember the discussion of Time Relativity. A field of force present in the coil of wire was changed into a time warp when the watch was inserted into it. Rogers had cleverly changed the setting of the watch so that it was incorrect, creating a *false* space warp. Thus, the aluminum formed a reflector that caught the energy of the enemy beam, transcombobbled it, and directed a time component back at the alien ship which was inconsistent with its position at that time. So both were neutralized and vanished.

the reply: "By the time you reach Earth, the cabin will have been exhausted of oxygen for a period of 31 hours."

The spaceman formulated another question in desperation: "What shall I do?"

This time the machine took longer, sounds of intense concentration coming from its interior. Finally, the answer sheet shot out. "There are two courses of action: (1) you must quit breathing for 31 hours; (2) you must turn on the emergency supply of oxygen."

Rogers pondered carefully. He must make no mistake. He must approach the dilemma with all the logic that he possessed. First, not breathing for thirty-one hours would be extremely difficult; in fact, quite impossible. That left one alternative: the emergency supply of oxygen. His face brightened . . . of course! Why hadn't he thought of it before? Surely such skill and resourcefulness in time of an emergency would gain him even another medal. He turned on the oxygen.

DURING all this while, Earth was undergoing wild celebration and thanksgiving over her deliverance from the aliens. The battle had appeared only as blobs of light on the radar-scanners, and each time one had disappeared the watchers held their breath in anxiety. Then wild cheering would break out when it became apparent that Rogers' ship was still in existence.

When the battle had ended, the lone speck of matter representing Rogers' ship in the vastness of space had been accidentally lost from the radar-scopes. Sorrowfully, it was assumed that he had perished in his epic struggle.

A monument was rushed through to completion by a grateful Canada. Hollywood whipped up a movie called, "The Life Of The Rocketeer," and advanced admission prices 50%. An aircraft carrier was named after him, and there soon appeared a special issue of one-dollar bills with his picture and name engraved on them.

Night clubs featured a new drink called, "The Space Filler." It was happily named, as brass-buttoned managers of local bastilles could testify all over the world. "Trustworthy Timothy," a renowned used-car dealer, even featured a "Rogers' Special" on all of his lots. This consisted of leaving the tires on the automobile, when delivered, that were present when the purchaser inspected it.

Unaware of all this, Rogers coasted into the gravitational field of the Earth and picked up speed. He waited calmly until the green-and-brown features of good old Terra filled the heavens, then cut in a starboard rocket tube. Gradually the rocket took up an orbit around the Earth and slowed down as he eased it into the atmosphere. As he approached closer, there were many reports on Earth of new Flying Saucers. In California, hunters momentarily ceased shooting each other and gazed into the heavens, awe-stricken.

The rocket skimmed closer and closer to one of the Great Lakes, finally making contact in much the same manner as a rock skipped acros the surface of a pond. It skipped and belly-whopped for thirty miles, then dug in, tossing up a cascade of water, and settled about a hundred feet from the shoreline. Rogers jumped into the lake and swam to shore.

He was mildly surprised to see a trio engaged in conducting a picnic. It was the senator, the girl—who was the Senator's daughter—and the good-looking engineer. The Senator looked up with utter astonishment. "Rogers, what the devil are you doing here?"

Rogers stiffened and saluted snappily, spraying water in every direction. "My mission is accomplished, sir."

The Senator was vexed. "Rogers, you have completely disrupted all of our plans. The first fifty-dollar payment on your insurance policy was sent to your great-uncle—I'm afraid you'll have to make it good as soon as possible."

Rogers flushed. "I'm sorry, sir. I'll

make it good immediately."

That night, there was a secret meeting of the World Congress. The many, many inconveniences caused by Rogers' return were pointed out and debated. The vote that followed was unanimous. Rogers was called in and told of their decision and accepted it dutifully.

THE SMALL group of people at the New Mexico rocket-launching site were grim-faced, silent. Their eyes went often to the tall, powerfully built young man who stood to one side, murmuring something to a beautiful girl whose blond tresses blew about in the breeze of the evening. She frowned and caught them before they had blown too far. *(7)

The Senator glanced impatiently at his watch and looked at the others, who nodded. He called out, "It's almost launching time, Rogers. Remember, when you reach Mars, you must set an example by your conduct that will reflect credit upon Earth and the World Congress. Perhaps in fifty years or so we may establish a colony there—however, don't be looking for us. This is a very great honor that has been conferred upon you, Rogers."

A flush of pleasure and pride filled Rogers' face. "You are much too good to me, sir. It's more than I deserve."

He turned and strode toward the rocket as he had on that momentous evening he had taken off to defeat the Invaders . . . but this time there was a slight difference. The other time he had strode alone, the focus of grimly hopeful gazes. Now he was virtually borne along by the friendly hands and feet of the happy throng that had come to see him off; jovially slapping his back and shoulders to keep him continually off balance, they took him to the rocket and heaved him like a side of beef up the ladder into the airlock. Rogers was so moved that he wept.

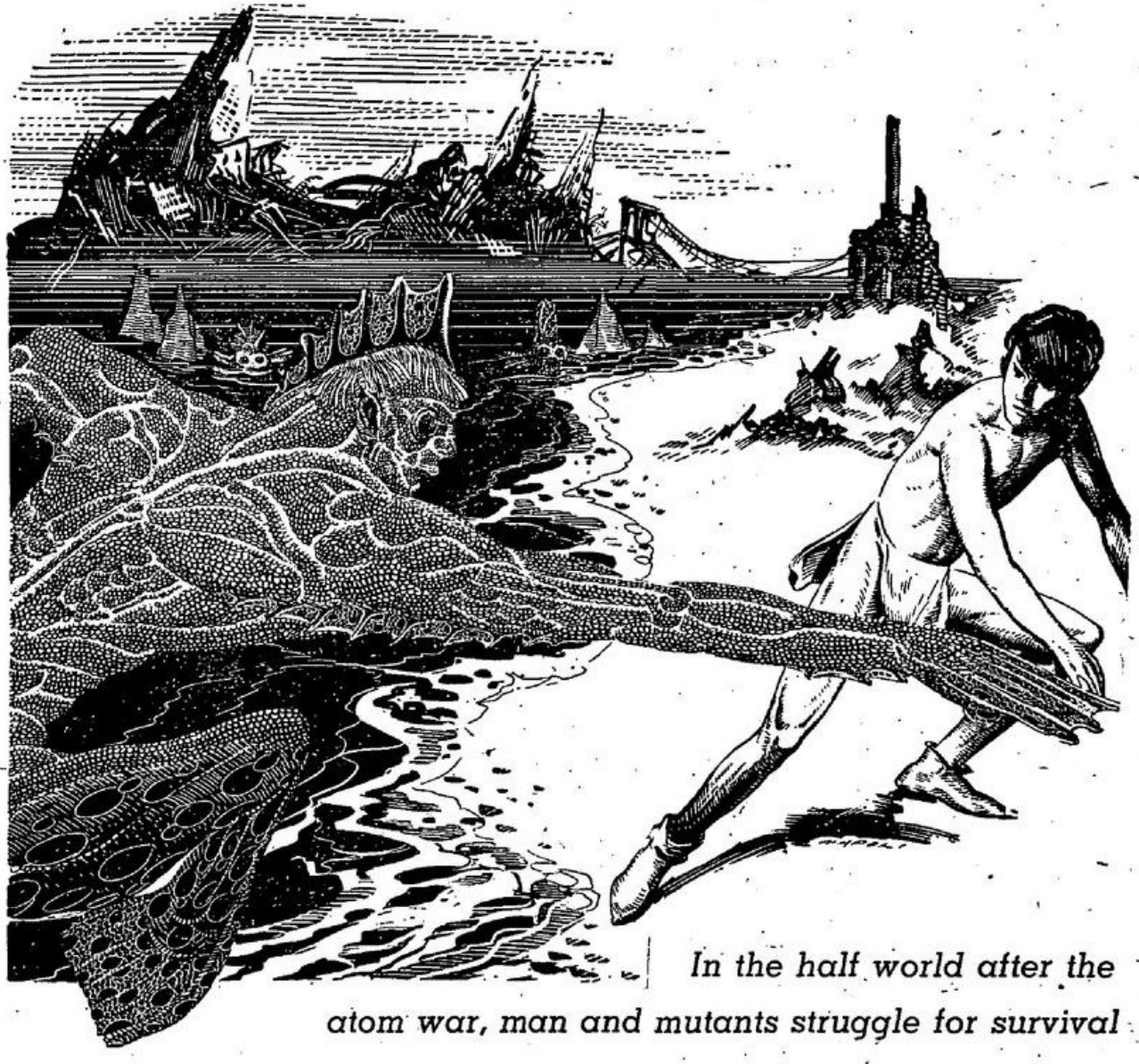
The rocket took off.

Rogers saw a red cover marked DANGER over one switch. . . .

Six seconds later, it became evident that the psychologists and technicians had designed the second rocket as an exact duplicate of the first, atomic warhead and all.

This time the manual switch for exploding the warhead functioned perfectly.

*(7) See Footnote 1.



In the half world after the atom war, man and mutants struggle for survival

Who Knows His BROTHER

by GRAHAM DOAR

THEN CAST the first stone, if it must be cast, but not with hatred, not with pride in our own stainless state. Throw with good aim and a reluctant arm, as a man wields the razor to cut his own throat. For—and of this be sure—by this act, by this however needful violence done, we have assumed a measure of the guilt, have made in some part a defeat upon ourselves. Mankind is henceforth the less, and by our doing.

Make no mistake. A man may hate and be strengthened and ennobled by it. Let us by all means hate oppression and injustice, hate greed and the cruelty of ignorance and fear. Hatred, so cultivated, is a precious thing—but tend it well. Multiplied too rapidly, dropped

carelessly in too fertile a soil, allowed to cross with ignorant prejudice, blind self-seeking, it may bloom at last into death and destruction for us all. Guard your hatred well, then, and sow it sparingly.

Lest the future be left to the wind and the lonely rain—on a ravaged earth—under an empty sky.

—Taken from the address of Dr. Rhama Lhal to the United Nations Security Council in March of 1956, the Year of the Death.

AND NOW, nearly a thousand years after the Year of the Death, the race of man was vanishing from the scarred and bitter face of the earth.

Like the scorpion, trapped in the gathering holocaust, frantic in the searing, circling flame, Man turned his poisoned sting against his own body. At first the abnormal births were few, and the appointed watchdogs of "racial purity" (the tired old phrase had a new and bitter meaning) searched them out and destroyed them mercilessly.

The young mother, smiling sleepily at the faces around her bed, asked for her child and was answered by stony silence and averted eyes. She wept; and the sound of her weeping was the voiceless shout of doom. True, the warped, erratic seed was weak, but it gathered strength in numbers. The watchdogs lagged behind in the ghastly contest.

Patrols, organized to rove the hillsides and the wooded valleys, hunted down and exterminated the little groups of "deviates." But, carried secretly in the proud bodies of the hunters, the hunted had their allies, the injured cells seeking survival in whatever form. The percentage of viable mutations increased yearly and the day came, as was inevitable, when the abnorms banded together and struck back. Now began the end. Who can know his brother in the night, in the heat and clash of battle?

BOY was fifteen in the spring of that year, 2952 A. D. On his birthday, his father presented him with the six arrows with the priceless metal points and together they went into the woods. Boy killed a kau at nearly sixty paces, a creditable shot, and his father administered the ceremonial *coup* with his bone-handled metal knife. The ritual cup was filled and, over the sweet, still-warm blood, they talked of what it was to be a Man.

His father talked and Boy listened, his heart big in his breast. It was as though he were hearing for the first time these well-loved stories of the brave world that had been before the Year of the Death.

He heard again, as with new ears, of the world full of men and of their great sittis. He listened enraptured to fantastic tales of kars that went over land, over water, even through the air. Fantastic, yes, but he had seen with his own eyes the twisted snakes of metal called traks over which the land kars had run. Eaten by the red evil, now, and mostly gone to rust, but visible proof that here ancient proud Man had lived and worked his miracles.

Oh, it must have been a lovely world then, with men everywhere, talking, laughing, busy with their many magical works. But then had come the Death, the many deaths, the fire and the bursting thunder and the roiling poisonous clouds, raining from the skies on the men and on their sittis. They fought, or fled in terror, or died in terror where they stood, and it made little difference in the end because this was the end of the Day of Man. And this, too, Man had done; this was not the least of his many miracles. To have undone, in one brief while, Nature's centuries of quiet, patient striving, was this not a proud thing, grandly conceived and grandly executed?

The voice of Boy's father was bitter now as he talked of the years after the Death, when the abnorms grew strong and roamed the land, everywhere hunting and killing the few remaining men. The men were evil, said the freaks (in his anger, Father used the terrible

word), and had brought evil on the earth. They must die.

His father sat in silence for a time and looked at the ground. "Hunted and driven, a few of us yet survive, and in our wrathful strength have taught the abnorms to fear us. There is our little sitti here in the hills and, I have heard, a greater one in the big valley to the east. There may be—there *must* be others. I have had a dream . . . a thought that, some day, all the men might come together and together build again a great sitti . . . perhaps where one of the ancient ones stood. Perhaps the day is yet to come." He raised his head and looked at Boy. "You are, today, a man. In this blood we have shared, you become my brother. Take my dream and share it, also. Nourish it, carry it with you where you go." He stood up. "Come. We must get back to the sitti before it grows dark. Wipe the knife and the arrow and rub them with the fat to keep the red evil from them."

Boy moved as one in a dream and his father's words rang and sang in his ears. Today, a Man!

THEY came in the night. Boy woke from untroubled sleep to a world made hideous by their hoarse, formless cries and the confused, answering shouts of his own people.

Torches flared and already most of the houses of the little sitti spewed flame. He raced to the window-opening, his belly cold and tight. Lurching on their springy, twisted legs, tumbling, running through the sitti, wreaking ruin and death with their clumsy wooden weapons, there were hundreds of them and still they came.

The Springers! The soft-boned, great-bodied abnorms from the lowlands. Farmers, they were, and scorned by the hunters of the wooded hills! Only the week before, Boy's father had led a raid against one of their sittis, killing twenty or thirty of them and seizing their grain and herds. This was their answer.

Anger burst blindingly in Boy's now wide-awake mind. These—these *freaks* daring to attack *men*—and Boy himself but today a man!

He snatched up his short bow from beside the tumbled couch, slung on the little quiver of precious arrows and plunged through the window. In the shadow of the house, he knelt and strung the bow, selected and notched an arrow. The string twanged, a clean, thrumming note, and one of the huge, pale forms rolled suddenly on the grass, tearing at his soft chest and making high shrieking noises.

Boy grinned wolfishly and looked for a second target.

He heard his father's voice, near, raised in a despairing shout that choked off suddenly with an ominous, horrible gasp. Boy shouted in answer and came to his feet running. As he rounded the corner of the little house and came into the flare of the smoking torches, a huge form blocked his path.

He lunged, stabbing rapier-wise with the arrow in his hand, felt it catch slightly and slide in. His hand was against the cold, soft flesh, and he felt the slimy touch of blood. Boy gagged and wrenched desperately at the arrow.

A wooden club wielded by a strong hand crashed down on the back of his head and he pitched forward in the dew-damp grass. Over his still figure, the bloody, hopelessly unequal fight went on for a while.

HE HAD been sick in the grass where he lay and, as the sour smell mingled with the odor of burning from the cooling ashes of the sitti, he vomited again, thin, rancid-bitter liquid that burned his throat. Choking, his eyes stinging and swollen with tears, he felt around in the grass until he found his bow. The quiver, slung at his side, still held four of the metal-tipped arrows. There were plenty more to be had here, their owners past any need for them.

There were bodies everywhere. Ten of the Springers, it seemed, for each

one of Boy's own people—but there had been so many of them! Everywhere they lay in boneless lumps of disgusting pale flesh, and from most of the lumps protruded the neatly feathered shafts of the deadly hunting arrows. Nowhere was there movement; nowhere any sign of life.

Hopelessly, he sought among the crumpled forms for his parents. Hopelessly sought and found them—and hopelessly turned away. For a while he wandered, reluctant to begin thinking, through the ruined sitti, kicking at a glowing coal here and there, pausing briefly to remember an occasional familiar face. Finally the lightening sky in the east reminded him of coming day and the day's danger.

They would be back, Boy knew. The Springers would return to carry away the bodies of their own for their curious ritual of burial. It was time for him to move on and there was nothing to hold him here. Resolutely he approached one of the dead enemy and laid his hand on the shaft of the arrow that protruded from the soft, huge chest. He tugged and the Springer made a gasping sound and then writhed wildly on the damp grass.

Panic struck at Boy, seized him utterly, and he began to run. Panic became hysteria and he ran wildly, his mind's eye seeing the pursuer lurching and springing after him. He missed the trail into the woods and tore through the tangle of underbrush, feeling in the slashing vines the cut and thrust of a wooden spear. His hurt head ached with dizzying throbs and globules of pure white light burst before his eyes. His breath whistled and rasped in his throat and seemed never to reach his burning lungs.

In the end he ran himself, literally, into unconsciousness, pitching forward on the carpet of pine needles and dried leaves, sliding to a crumpled halt against the bole of a tree. The strung bow was still tightly clutched in one outstretched hand.

BOY wandered for days through the thick forest along the range of hills. Much of the time his head ached blindingly, and he could never get enough liquids to drink. Water was scarce and, anyway, was thin and unpalatable to his taste. Finally he happened upon a grazing kau and shot it. He drank deep and slept. In the morning he managed to get down some of the flesh and after that, slept again.

His head easier, his strength returning, he began now to plan. He remembered his father's dream—his own dream now, his alone—and he began to make his way toward the east, toward the great river valley nearly a hundred miles away. If he could find there the group of men his father had spoken of, he would join them. Men were scarce enough in the world of the abnorms; he would be welcomed.

Days later, circling the rim of one of the great, glass-bottomed craters that dotted the countryside, he saw a wisp of smoke ahead. Boy quickened his pace but went with caution.

The Springers, he knew, used fire to prepare food and he had heard of other abnorms who did so. No men had this habit so far as he knew. He circled up the hillside to get downwind of the smoke and selected a tall tree to climb.

From his lofty perch he could see the fire, a tiny one, and the dwarfed, big-headed figure that tended it. Boy had never seen one but he had heard of them and he knew this abnorm for a Puffer: The short, crooked arms and legs, the small torso and the huge, hairy head were unmistakable. The abnorm appeared to be alone.

Boy carefully descended the tree and crept up on the clearing. From a hollow behind a rotting oak about forty paces away, he watched curiously while the Puffer prepared his simple meal. The dwarf pounded blueberries into a thick paste with grain and baked it on a hot rock. He plucked and cleaned three tiny birds and turned them on a stick over the glowing coals. Boy's stomach

growled slightly and the saliva came up in his mouth. The smell, burned or no, was delicious.

He raised to one knee and notched an arrow. For a fleeting moment it crossed his mind that it might be simpler to ask for a share of the food and his right arm hesitated. A *man* suing for favors from a *freak*? His mouth twisted in disgust, his eyes narrowed and he drew and loosed.

The birds fell into the fire but he managed to snatch them out in time. He couldn't stomach the acid, unsalted berrycake but the Puffer had a watergourd which Boy was glad to get.

It was nearly a week before he came to the river, high, near the northern end of the valley. He turned south and followed the widening stream down into the level-floored bottom. He was a little nervous so far from the forest but the grass was almost shoulder high, making good cover. On the second day he came to an enormous pile of a sort of rock, crumbling by the river's edge. Across the water he could see its twin, rearing up from the far bank. He knew that he was looking at one of the ancient works of Man and he ran his trembling hand in wonder over the dry, rough, powdery surface. Broken now, and useless, still it stood in his awed vision, the high, graceful span flung across the turbulent current to make safe passage for the magical kars.

For an hour or more he sat beside it, dreaming, lost in a strange, thrilling joy.

Then he slept.

He awoke suddenly, the skin prickling across his shoulders. There was a rank, heavy odor hanging in the windless, twilight air, the smell of river slime, and a small splashing sound came from the water a few yards beyond his outstretched feet. He reached for his bow and met emptiness and realized at the same moment that the quiver was gone from his side.

There was rustling, snake-like movement in the long grass near as he started to his feet. Cold, ropy arms were around him, suddenly, gripping, tightening with bone-cracking strength. He snarled and bit viciously as one of the arms slid around his throat.

There was a fishy taste in his mouth that was not fish and the rank odor was very strong.

Terror surged over him as he recognized his assailants, the Fishers, the waterpeople, and terror grew to madness as he heard gawping, chuckling cries and louder splashing from the water. More of the fearful, dripping abnorms were coming, bounding on their flipper-like feet, waving their thin, hideously strong, tentacle-like arms. Madness drove Boy's agile, twisting body. He stabbed an elbow into the bony, ridged face at his shoulder and kicked hard at the dirty-white belly of the Fisher in front of him. There was a slight, momentary slackening of the grip on his throat and body and he writhed, heaving desperately.

Then he had broken free and was running.

FOR two days he wandered, weaponless and hungry, moving aimlessly south along the wooded slopes. For fear of the fierce, flesh-eating Fishers, he kept away from the river banks. On the second day he surprised a kau grazing through the brush and chased it but he was weary and weak with hunger and the fleet creature easily outdistanced him.

It was early afternoon of the third day that he stumbled across the top of a low ridge and came to the edge of a bluff that looked out across miles of level land to the far thin ribbon of shining water. Boy sat upon the ground and stared.

He rubbed his eyes and looked around again.

It was a sitti. Such a sitti as he had never seen. There must have been a hundred, oh, two hundred houses and, unbelievably, some of them built on top of each other, three, even four high.

This was, this must be the place of the men! Boy's weariness slipped from him as he contemplated this already blooming flower of his dream, his father's dream. Surely, even ancient Man would not have been ashamed of such a sitti as this.

Almost dancing in his joy, he ran swiftly along the bluff, looking for a way down.

Miles upstream, the Fishers sat in conclave on the muddy banks. Sunlight glinted and broke against their moist, shining skins. Their pale eyes glittered as the thick, transparent membrane was opened and closed in excitement. The air was filled with the sodden, gawping sound of their speech and with the swirl and splash of water as thousands of them dived and swam and floated like a great herd of seals.

The scouts finished their reports and, after a few moments of silence, the leader spoke. "Tonight," he said. "It will be tonight. There is no moon and the sitti will be dark. Look to your weapons."

The sun was lowering when Boy found a path down the bluff. He raced down it and came upon a road, a cart-track that bore the unmistakable signs of wheeled vehicles. His joy burst all bounds.

These indeed were men, since of all the abnorms only the Springers ever used kars.

Springers, Boy know, had never built this towering sitti. He loped along the dusty road toward the nearest of the houses.

And now he saw figures moving about the building. Three of them, two tall and slender, the third small and chubby.

As he caught sight of them, they disappeared into the house.

Boy shouted aloud and began to run faster, his small, flying feet kicking up spurts of dust. "Ho there, friends!" he shouted. "Ho, friends! I, too, am a man!"

The leader of the Fishers glanced at the setting sun and waved a long, webbed hand in the agreed signal. The squad captains gawped their orders and the Fishers slid into the river and began to swim. The females sat on the bank looking after them, hushing the young, watching the silent river, seeing the occasional sparkle as the last rays of the sun caught a sleek head raised, gulping air.

The tall figure nudged his mate and the child into the house as he saw Boy running toward them. Standing in the shadowed doorway, holding his cross-bow ready, he heard the howling cries and narrowed his eyes into the slanting sunlight. Suddenly he recognized the running figure and he gasped and raised the weapon, loaded and wound, to his shoulder. There was a snapping sound and Boy stumbled, rolled on the grassy edge of the road, snarling in hurt and puzzled fear and rage, biting and snatching at the metal shaft that protruded just under his arm. Slowly he grew quiet and his yellow, blazing eyes began to dull.

His hand slipped from the bloodied cross-bow bolt.

THE tall figure stood over him, touched him with a foot. Boy, dying, saw through a mist, saw the smooth, hairless skin, like a Springer's, saw the flat, narrow face, the small nose—and only one pair of eyes! Men, indeed! These were not men!

Boy's long face twisted, showing his yellowed fangs in bitter, snarling self-derision, and he died and his foolish dream died with him.

The tall figure nudged him again with a foot and spoke over his shoulder to his cautiously approaching wife. "One of the Killers," he said. "Those four-eyed wolf-types from the hills. That was a close thing, they're one of the most dangerous of the abnorms. We men are going to have to do something soon. These freaks are getting bolder all the time."

His wife paled at the awful word but

she nodded agreement while her blunt-fingered hands scratched absently at her thick, scaly skin.

There was a small sore forming just at the base of her tail and it itched her terribly sometimes.

Her mate said, "You and the young one stay in the house. It'll be dark in a minute. I'll get rid of this." He used his tail to steady himself while he lifted Boy's heavy body and went with it across the road toward a grove of trees. Wisely, since it was growing dark, he carried the re-armed cross-bow ready in his other pair of hands.

The leader of the Fishers decided it was dark enough. Again he signalled and the swimming figures turned and swarmed up over the rocky shore. Silently, at first, they poured through the streets of the quiet sitti, unseen, getting into position for the attack.

The final signal came and the squad captains bawled the battle cry as the bloody work began. The Fishers all took up the shout and their gawping bellows rang out over the dying screams and alarmed cries of their trapped victims.

"Kill the freaks!" boomed the Fishers. "The world for the men!" they cried. "Death to the freaks! Kill the abnorms! We men must rule the world!"

(Continued from page 6)

surface for the volume of gas ejected. The slots would be wide at the edge and narrow toward the center, thus influencing the shape of the vehicle towards a disk.

Hush-Hush Jigsaw

One of the more entertaining hobbies in this world, if you can retain a certain detached objectivity, is piecing together the stray bits of information you pick up here and there, to make the whole jig-saw puzzle of hush-hush news.

Certainly one fact is inescapable from these scattered items—the boys aren't talking just to hear the sound of their own voices. We are on the threshold of space travel. We are probably actively constructing a space satellite. And just as a minor corollary, what about the flying saucers which a surprising number of hitherto reliable people claim to have seen?

For a lot of science fiction fans, a great day may indeed be dawning. A day when their friends, who tolerated their queer addiction to "fantasy" literature, may find themselves projected into an unfamiliar world where fantasy becomes stark reality. And where, as we have said before, science-fiction becomes the staple literature instead of the literature of tomorrow. In which case, science-fiction writers are going to have to work like the devil to keep ahead of reality.

As for ourselves—we just hope we live long enough to get onto one of these expeditions. It doesn't much matter where. Just to take that jump off this old mud ball of Earth. The last—the greatest adventure!

ETHERGRAMS

WITH STARTLING gone monthly, the gap between letters received and letters in print will be cut, which should please no end the fans who've been griping about the three month wait. There's just nothing we won't do for our readers . . . Anyway, here are the letters:

TASTY PUDDING
by Bob Hoskins

Dear Sam: As the old saying goes, the proof of the pudding is in the taste. And that statement can be warped to read the proof of editorial fitness is in the first issue completely assembled by the editor. Merwin has given you an astonishingly good first issue; keep up the quality in the future.

Incidentally, have heard that STARTLING has a novel by Mack Reynolds & Fredric Brown in the stable. True? If so, when will it appear? And what is the title? This team, both competent writers by themselves, has something special on the ball when they hitch their writing horses to the same story.

The longer lengths exceptional this issue, while the shorter ones passable, although I'm surprised at Merwin for scheduling something like GREASE IN THE PAN for appearance in one of his own mags. I think I'm right in assuming this is Russell's first novel for you'uns, no? Let's hope that he will duplicate the feat in the very near future.

Schomburg exceptional on the cover. I suppose 'tis useless to request the original? Thot so. Oh, well, mebbe someday Better Pubs will be a little more free with their original illos. Who knows, but what they may someday give interior illo credit?

Thank thee for using my letter in your first issue. (I assume all the departments are your material this time.) But please, how about getting me a little closer to the front of the section? I dunno why, but with two or three rare exceptions, my letters always get shoved into the middle and back portions. Only once in STARTLING have I shared one of the two top honor spots, namely first and last letters, which two are all many, many people read.

The end of the year is at hand, so I shall repeat my summing up of the year's issues of SS. But first, a pause, while I scoot along at top speed to get the other five issues.

*** (a pause) ***

NOVELS:

1. THE STAR WATCHERS, by Eric Frank Russell.
2. THE STARMEN OF LLYRDIS, by Leigh Brackett.
3. HOUSE OF MANY WORLDS, by Sam Merwin, Jr.
4. THE SEED FROM SPACE, by Fletcher Pratt.
5. THE DARK TOWER, by Wallace West
6. PASSPORT TO JUPITER, by Raymond Z. Gallun

All were excellent, although there is a perponderency of space opi among the gathering. The only ones which can avoid this cognomen are the Pratt and Merwin deals. Hear tell Sam's story has been chosen for hard-cover publication, I think by Doubleday. The only one I would choose as a certainty for eventual book-publication is Russell's in the current issue.

NOVELETS:

1. THE ODYSSEY OF YGGAR THRALG, by C. H. Liddell.

2. THE GAMBLERS, by Mack Reynolds & Fredric Brown.
3. THE TWO SHADOWS, by William F. Temple.

One, a light fantasy; the others, heavier science-fantasy. None the psuedo-science-fiction of which SS and TWS have been so fond of running. None of the Future novelets made a showing this year, whereas last year I gave Hamilton first and third spots. All novelets would be an honor to any anthology of superlative science-fiction.

SHORT STORIES:

1. WITCH WAR, by Richard Matheson.
2. YES, SIR!, by H. B. Fyfe.
3. A TAXABLE DIMENSION, by (?) Samuel Mines.

Short stories have been your weak point in the past year. Over half of them I had to half re-read before I could recall them. Such ain't good.

The best cover is undoubtedly the Schomburg on the November issue. Here's hoping we see a lot more of our boy Alex. Only don't make the mistake of giving us a continual diet of him. If necessary, give us an occasional Bergey. But have variety! SS was in a colossal rut, having featured Bergey on twenty-seven straight covers, with nary a break. The last non-Bergey job was by Belarski, on the March '47 SS.

If there are any fans in the Albany area, I wish they'd look me up. Will be attending Albany State Teacher's College. My address will be 1 Thurlow Terrace. Phone number, 62-9225.

Here I want to insert a plug for the ISFCC, one of the best fan clubs now in existence. Simple to join—no dues! The only cash obligation is a sub to the club organ, the EXPLORER, at the rate of half a buck per annum. For further information, write Ed Noble, Jr., Box 49, Girard, Penna., or myself at 1 Thurlow Terrace, Albany, N. Y. Or better yet, send Ed a dime for a sample copy of the zine.

A lot of fans are discovering the pleasures of membership in such an organization, and not regretting it in the least. Don't miss out on the fun! Join today!—*Lyons Falls, N. Y.*

That far enough up toward the top? And having made it—what have you got to live for now? But wait, let me answer some of your questions. Haven't seen a Reynolds-Brown novel. Could be your informant was thinking of THE GAMBLERS? Have a long Kuttner coming up next ish though—WELL OF THE WORLDS—and better Kuttner ain't been wrote.

Yep, Sam's book, HOUSE OF MANY WORLDS, is in hard covers. And thanks for the plug of my own short story—shucks, wasn't nothin'.

CRONE-ICKLES

by Rory M. Faulkner

Dear Mr. Mines: Would address you as Sam in my informal Western way, but don't want to get the Sams mixed up! Now for the barrage of perfume and stink-bombs.

Your lead novel, THE STAR WATCHERS was one of the finest I have ever read. It is quite the best thing Eric Frank Russell has done since his DEAR DEVIL in—if you will excuse the expression—another publication.

Merwin's GREASE IN THE PAN isn't much of a story. (For this he quit editing?) It's only claim to any value lies in the trick ending, provided you get that far. This story calls for a sequel, to be entitled FAT IN THE FIRE. On second thought—forget it!

THE GAMBLERS, by two of the Taos Ring, had a good plot, but I find stories written in the second person singular peculiarly hard to read. One thing bothers me—how in the name of common sense did our hero mix the oxygen out of those containers, what did he mix it in and how did he get it back into the containers after he got it mixed? Riddle me that one, Reynolds and Brown!

THE CUPIDS OF VENUS, by William Morrison. I was afraid this would turn out to be either a formula Saturday Evening Post Love story or an inferior "1948," but was agreeably surprised on both counts. I liked the way the powers-that-be finagled with plain old contrary human nature in their matchmaking. A good story.

But you sure are cutting down on the stories! Why not a few more good shorts? I am glad you are having movie reviews. I had already heard a good deal about WHEN WORLDS COLLIDE from Dr. Robert Richardson, who told me he had been on the set with Chesley Bonestell several times. He seems to think it is a real thriller, especially the scenes of destruction.

The cover on this November issue was wonderful. Try and keep Schomburg happy so he will do more and more and more for you. The double-barreled space ship is especially intriguing; looks like an interplanetary P-38, which was once described by a female airplane spotter as "two airplanes with their arms around each other."

Your first editorial is the epitome of modesty. It is also re-assuring except for one item—your idea of science-fiction detective stories. *That* I won't buy! NEEDLE, by Hal Clement, is the only successful one of that ilk I ever read. I loathe detective, western, and sports stories gussied up with galactic trimmings and miscalled science fiction. The Taos Tribe do too much of that already. Don't ever *do* this to us!

All in all, son, a good start. Congratulations from an aged crone who has been reading science fiction for lo, these fifty years and more. —*164 Geneva Place, Covina, Calif.*

Can't find much to fight with you about there. The detective story idea was just one as a sample of many untouched fields—whether you like detective stories or not. As a matter of fact it grew out of a conversation with Fletcher Pratt, which later led to a couple of good novelets by said able scrivener. And although I've never been overly fond of detective stories myself, I think it is a valid part of the pattern in its place.

RETURN MATCH

by Joe Gibson

Dear Mines: Haven't read the stories yet (Startling, Nov. '51) but already I gotta couple questions about that Schomburg cover. First, what are those three little, dark pods on the ship's stabilizer? Second, why in blazes is the ship equipped with piston-type fuel-pumps?

In other words, the cover's so good those minor inconsistencies stick out like glaring errors. Perhaps it's the curse Schomburg will have to accept with the blessing of being so fine an artist.

Kinda feel I got bushwhacked back in TEV, this time. I said it's hardly accurate to judge the men who open new frontiers by the human sheep who follow them, seeking selfish opportunity, and I'll stick with it. You asked me what I think the men who opened the new frontiers were seeking, though—and I'll tell you. I don't think it was any of the things you implied.

Your "tough monkeys who went forth to kill Indians, slaughter the game, wipe out the forests, destroy the soil, rip out the oil and gold and coal and generally wreak havoc" weren't frontiersmen in my book. They were tough, all right—but they were still the human sheep who followed. The opportunists. Among early pioneers, even such men as Dan'l Boone were Johnny-Come-Latelies—and history and the smugly civilized world would've ignored Boone if it weren't for his Wilderness Road and Boonesboro. But opening a new frontier doesn't necessarily mean opening it to the public. Most frontiersmen's attitude was damn the public, let 'em go find their own frontiers. And I don't think I confused courage with nobility in any way; either; as I said, reckless courage isn't much help—to live in a wilderness, you have to know what you're doing.

What men seek in new frontiers is probably something as personal as what some men seek who take their religion seriously. You might say they're seeking themselves. A more recent example is the XS-1, that rocket plane built by Bell Aircraft. Several test-pilots gave it preliminary flights, but none were willing to shove the throttle wide open and slam it past the sonic barrier. Then, there was a Captain Yaeger, and he was a personal friend of one of the engineers, and they put their heads together, trying to figure out by deduction just what would happen to that ship at speeds no human being had flown before. It took quite a while before both men were satisfied. They were sure they had the answer; they had checked all possibility of error. There remained only one way to prove their answer beyond doubt—so Yaeger was the man who flew faster than sound. What happened was what they knew would happen, and Yaeger had figured out what to do about it. He knew what he was doing. And he lived to tell about it.

So I repeat, with emphasis, that if any crewmen on the first expedition to Mars meet any intelligent monsters, said crewmen are not likely to shoot first and ask questions afterward. In the first place, there's no way of knowing where to put the bullet so it'll kill the beastie! A Martian might have his heart in his left hind leg, for all we know. But as for the first group of colonists to reach Mars, I don't know. Maybe the first group would be all right. After that—better have a corps of field psychiatrists handy, plus a headquarters of staff psychiatrists to examine the field psychiatrists. And even then, I wouldn't be too sure.

By that time, the guys who survived the first expedition to Mars would probably be making the first human footprints on Venus. Can't say. I blame 'em.

However, I'm not advocating that we junk civilization and return to the wilderness, as some philosophers would have us do. The fire feels just as hot as the frying pan—and a frying pan can be cooled off; i. e., methinks we could take a little closer look at this thing we call civilization.

Science fiction's a good place to do it. But another small paradox is suggested in your editorial remarks anent comic-book stf versus intelligent stf. Hastily, I voice loud agreement. Let's have intelligent stf, by all or any means. But—are we with the multitudes, Sam, or are we all by ourselves 'way out here? What deductions are to be drawn from the sales figures on FOREVER AMBER, FLYING SAUCERS, and DIANETICS?

Shuddering thought, eh? — *24 Kensington Ave., Jersey City 4, N.J.*

The little pods, m'boy, are not pods at all. They are precisely machined contact points for the launching rack. As the ship gathers speed for the take-off, its motion is controlled from the launching cradle by three long metal arms, whose extremities rest in these depressions and through which flows a continual stream of information regarding speed, stability, vibration, temperature, engines, communication system and so on. Should anything go wrong before too great a velocity were reached, the cradle might yet be brought to a stop. After that—well, the scientists back at earth would at least know why the ship went bloop.

Nor are they pistol type fuel pumps. There are two kinds of fuel used and injected alternately into the combusion chamber—which is why you get the different colored flames at intervals.

As to your frontiersman: there were probably as many different kinds as there are men. Some were undoubtedly the pure idealists, burning with a lambent flame, which you describe. Others were slightly psychopathic and couldn't get along with anybody, so hit for new territory. And plenty were the opportunists I mentioned who were out for loot.

BULL-HEADED?

by Patrick-Martin Paul Kelly

Dear Ed: This being my first communication with an editor, genus SFC, it most probably should be longer, but to get to the subject (you would not believe that I am in a University and taught by Jesuits from the atrocious composition of this card, would you?) I for one am very much in favor

of the fast and permanent return to SF of Captain Future and the Futuremen. This is because I weaned my Science-Fiction teeth, so to speak, on Captain Future back in 1940-1942, before I moved from "God's Country" up in the Bay Area to this misconceived bit of artificial oasis in the desert called LOS PUEBLA DE NOSTRA MADONNA DE LOS ANGELES DE PORTCUIENICA. (I hope that's it.) I have only one major critique: let's stop being such bull-headed and foolish atheists in SF stories. Yours, in the Lord. — *2601 S. Figueroa Street, Los Angeles 7, Cal.*

One of the things we will not do is to dictate a religious attitude for either our authors or readers. Personally, we have never felt that our own ideas on religion or any other controversial subject were any more important or valuable than anyone else's ideas and that very likely all ideas have merit. The only limiting factor here is that in a column like this we serve as a sort of official referee and we reserve the right to stop a discussion whenever it promises to become acrimonious or unpleasant. Apart from that, any side is welcome.

FUN LOVER
by Joel Nydahl

Dear Mr. Mines: I would like to be one of the first to welcome you as editor of the Standard twins SS and TWS. You know of course that you're taking over two fine mags, and are going to have a tough job to keep up the quality that Sam Merwin Jr. has kept in the past. But I think you can do it.

I have heard of STF editors writing detective stories but I see that you write westerns. But I hope that you don't write just westerns only because I would like to see some STF stories by you.

I hope that you aren't an editor like one I know who doesn't believe in having any fun and sticks to the "adult" type of story alone. If you are you won't find me buying SS anymore.

This a request. Now that Merwin is gone lets have some more letters from the Coles. What do you say boys?

As you may have guessed by this time, I am only 13 years old and I'm proud of it. I can't stand people who think that just because someone is not 21 or over that they are just a bunch of morons. I wonder how many of these so called adults read STF when they were young and enjoyed it. Personally I'm sure I get as much enjoyment out of STF as anyone.

This letter is already too long so I guess that I'll sign off. Never yours, always Mines — *304 W. Washington St., Marquette, Michigan.*

Oh, we believe in having fun, all right, Joel, you don't have to worry about that. In fact, the handful of stf stories I have written personally, about which you ask, were all the fun-loving type but one. There was one not very long ago in TWS called JUST PUSH THE BUTTON and another called A TAXABLE DIMENSION. All very fun-loving. The serious one was called FIND THE SCULPTOR but that was some time back. There'll probably be more.

VOICE OF DESPAIR
by Sheldon Deretchin

Dear Mr. Mines: Hey, what gives? I wrote a letter to SS saying that I liked the July ish and now I see that you printed my letter in TWS saying that I liked the June ish of TWS.

I demand an apology, or at least a note from you correcting your mistake.

Now what I have that off my relatively unhairy chest, I'd like to ask a favor of you. I'd like you to change my announcement about THE VARIANTS to say that any stfan who might be interested should write. We changed the club to a correspondence club as we couldn't find any members around where I live. As a correspondence club we have 17 members so far and are getting more ever day (or trying to, anyway).

The June ish was all right, but it could have been better. It was above the run of the mill stuff though, considerably above.

Oh, before I forget: thanks for printing my letter, but please don't print my next one in the wrong mag. — *1234 Utica Ave., Brooklyn 3, N. Y.*

This one's in the wrong mag too, isn't it, Sheldon? Let that be a lesson to you. When your letter reaches me, the envelope is not with it. And there's nothing in the letter itself to tell whether you intended it for SS or TWS. If you can find any clue in yours above except a possible indication in the next to last paragraph, you are wasting your time as a fan, you should be a sleuth. Put some clue on your letter itself—okay?

BANK STATEMENT
by R. J. Banks Jr.

Dear Sam (sob) Mines: It is with great grief that I note the retirement of that other Sam, the one who made the terrible twins the thrilling twins, and then made 'em quads. He says you are capable of filling his shoes, though, and his recommendation is good enough for me (the publishers too, huh?). The current (Nov.) issue shows that you either have the famed "Merwin touch" or he made up the issue before leaving. It is certain that he selected all the yarns, though, and fandom will reserve judgement on you until they see what kind of stuff *you* buy.

I haven't read the two long yarns yet, but E. F. Russell can always be depended on for at least a minor classic and the Reynolds-Brown team is going great guns in one of your competitors. I can give my opinion on the shorts, though: THE CUPIDS OF VENUS by Morrison was a good story; nothing stupendous, but good solid stuff like the readers have come to expect under the Merwin regime. Keep them coming, and you *will* fill those *big* shoes! GREASE IN THE PAN by Sam Merwin, Jr. (Oh, revered name!) was a better than average "anecdote" or "cosmic joke" type,

even though I guessed the gimmick in the middle of the second page.

Say! Where did you—or Marse Merwin—latch on to Alex Shomburg? I rank him in the same class of cover artists as Ches Bonestell and Malcolm Smith, though he's not so technically accurate as the one, nor so colorful as the other. His work is beautiful, beautiful, beautiful, but I'm already beginning to get nostalgic for the old Bergey-types; I've even hauled some of my back issues out, and looked at them long and longingly, with a wistful eye. Why not leave the reprint mags in Bergey's capable hands; have him stick to his straight girlie pics (the rocket, globe, and smiling-faced female head things were his worst offerings), with an occasional symbolic thing like the one for Sept. 1947 (my first) issue, illustrating Hammond-Kuttner's LORD OF THE STORM. Interior pics are miles behind the Shomburg cover, but are still passable in comparison to your competitors. Cartier is doing some work now for other mags beside *Astounding*, and you are missing a GOOD bet if you let him slip through your fingers! Bok and Finlay are well worthy of rejoining your art-staff, too.

Now the meat of the mag, the departments, natch! (Stolen from another fan letter I saw somewhere six months or more ago. Don't ask me where.) The *WHEN WORLDS COLLIDE* movie review was quite well done, told just enough to make the reader curious; I second loudly the advice at the end: "—you can't afford to miss it." The same thing probably goes for the books reviewed also, but I'll never know—what faned can scrape up $5.95 to $2.50 at one time; and anyway, there isn't any bookstore in Corsicana.

TEV was a beauteous thing, though I've seen much longer ones way back when. 22 letters on just over 14 pages is the record, I think, but I'm far from certain. The letters of pure comment I'll pass over, but I have something to say on questions raised by various others. W. Paul Ganley—I agree whole-heartedly on most of your comments on the fanmag reviews. Merwin never "snooted" me, but showed a major amount of attention to an unworthy mag. My second issue (which was frankly revolting to me!) made his A-List; my third issue (much better, I thought!) made it too, but over at least three of its contemporaries which I know were better.

Earl Newlin—A fellow Texan! While I don't quite agree with your views on maturity, I have neither the space nor the inclination to argue. I have read all the Matheson yet published, and have spotted not three, but four distinct styles. Three of them I like, and one revolted me—but it was probably the most commercial of them all! I say let's keep Matheson and *all* his styles.

Joe Gibson—You made some good points, but I have to go along with Mines in disagreeing. Remember what your chemistry teacher in high school said, "No matter how soundly reasoned an idea is, it is worthless if the basic premise is in error."

Ed Seibel—I have heard of the Stanford tests, but never seen one. If Corsicana had such a thing in the school system, I would have been out at least four years ago! (I'm a senior in high school now.) That's not all bragging. When I was in the sixth grade, Corsicana's one and only Intelligence Test was given out (to the seven grades in my school, at least). It was the "Gray-Votaw Intelligence Test" and worked on the basis of 120 being perfect; including questions for students up to the 9th Grade. My rating was the highest (87) in two sixth grade classes (totaling over 70 students), and was exceeded only by three in the 7th grade. We got no promotions for high scores, but I did manage to parlay my top score, plus a privately published booklet of puzzles, jokes, and fiction (none of it stf though) into a half-year promotion in the 7th grade.

Pardon my running over the prescribed 2 pages, Ed, but I just have to get in this last word or hundred.

I like your system for reviewing the fanmags, but I wish you would give the special mention to just one mag (ala Merwin of a year and more ago), rather than splitting the honors among two or more, as of late. I wish you could give more space to the reviews (at least three pages—you are using less than two now). I wonder, I just wonder, who will get special mention in the review which will include my 60pp. UTOPIAN 5; Lee Hoffman's 99pp. QUANDRY 13; Manly Banister's 90pp. NEKROMANTIKON 5; and Coos Bay Fandom's 60pp. IT 2. Of course, my practice of airmailing each issue as soon as it is finished may pay off, by beating the others out by enough to put UTOPIAN in an earlier review.

Merwin used to like poetry, but it has been notably lacking in the letters under your short editorship. You no like? On the outside chance that you do, here is my offering:

The NOLACON with sin and gin
Has come and gone, and so Merwin
Though in our hair and under our skin,
He was renowned among the fen
Can Mines turn the trick again?

—111 South 15th Street, Corsicana, Texas.

I like poetry too, but the difference between Merwin and me is that he could write it and I can't. So if the urge to rhyme comes over you, yield to it, by all means. I like it, I like it, but I can't rhyme back at you. I'll play it straight.

Schomburg, yep, good. But there's more Bergey coming up and Marse Bergey is experimenting with new techniques as you can see by the JOURNEY TO BARKUT cover and will see further with the VULCAN'S DOLLS cover. I'm not bragging when I say you're going to see some striking covers in the near future, by both Bergey and Schomburg.

ANSWER TO A PRAYER

by F. F. Green

Dear Ed, A friend of mine and enemy of yours (Expl.: He writes you letters) took a traveling salesman's job (all farmer's daughters, take shelter!) recently and left me his library, until such time as he should be settled again. Included were a stack of SS and TWS, which I looked through to see if any of my favorite authors were present. On finding some I began to read—and the

changes that have ensued since I fervently prayed for fifteen cents in the years gone by when I was a steady reader are the excellent reasons for this letter.

Having just read through a stack, both old and new, and having the old and new type stories fresh in mind, as well as the covers for visual comparison, I feel qualified to discourse upon improvements. So here goes.

Cover: Bergey has improved his style, despite the loud colors you insist that he use. They're more symbolical, the colors blend better, the women look real, and BEMs are largely absent. All of which I appreciate. The March and May covers show this. The March, which is a symbolic illustrating THE STARMEN OF LLYRDIS, is the best I have even seen on SS.

Novel: What I have prayed for. The abandonment of the dull, inhuman, and uninteresting (especially) super science lead novel. People, to me, are far more interesting than machines, and a man lighting another man with his brains and fists is better than a man figuring a whole universe of silicon creatures whose one thought is to destroy earth with their terrible death ray which the intrepid hero finds and changes one wire to a different post which changes the shape of the awful ray to the effect that humans are now immune and all silicon creatures within ten million miles drop dead. And if the previous sentence sounds dull and dead—so did the old style novels.

Ed's note: I *like* your little notes in front of the good stories. Interesting and informative.

Stories: Some pure fantasy! If I were a rooster I'd crow over that. The story by C. H. Liddel in the January '51 issue. Extra good! Give me more. And your comment to the effect that no matter how gadget-bound you make it, s-f is still fantasy. Will I rub that in a few faces! Less dependence on super-science genius and more human emotion, action, values. Excellent!

Last and also least, the Vibrating Ether. Better here, too. The untimely (he lived too long) death of Sarge Saturn helped a lot and the readers themselves did the rest. Boukets to yu! — *420 Luverne, Panama City, Florida.*

All the remarks, comments, quotes and achievements for which you are doling out credit seem to belong to Merwin, as you have apparently been referring to an issue before his departure. That's all right—I can gather up the plaudits for him and modestly ape a certain unsuccessful contender for the White House by remarking "me too," in a small voice. Anyway, now that you're back and find stf so much better than you'd expected, let's hope you stay.

REMEMBER THESE?

by Chester R. Johnson Jr.

Dear Ed; I hope this letter won't have to be typed for you to look at it. If it does it's just too bad, because I'm in bed and can't get to a typewriter.

Would it be possible for me to get the May, 1951 issue of SS? I missed it and would like to have it for my collection. (Relax, I sent him one—Ed.)

Also, I wonder if you or the readers of SS could help me identify a couple of stories. I read them four or five years ago before I started collecting stf and so didn't keep them. I think they were in either SS or TWS, but can't be sure.

In the first story the man who met the alien invader was killed. His son, 25 years later, joined the underground fighting the galactic empire. He and some friends from other systems were captured and exiled from the galaxy in a disabled ship to die. They were rescued by a patrol ship from another galaxy, their ship was repaired and they went back to destroy the conquerors. This sound familiar?

In the second story a man and a girl were trapped during an air raid in a cellar in Vienna. This was during World War II. Looking for food, they found and ate some jelly. It put them in suspended animation for a thousand years. When they woke up, Vienna was gone, the Earth was a park, the playground of an Oriental empire. The couple were sent to the moon as slaves where they helped organize a revolt which threw off the yoke of the Orientals. I know the plot is very familiar, but can you identify either one of these stories? — *Box 96, Albuquerque, New Mexico.*

We can take care of the missing issue of SS, but one of the fans with an omnivorous memory and an omniscient collection will have to help you with the stories. They're entirely too familiar to us.

NEW INDEX

by Donald B. Day

Dear Mr. Mines: I am now preparing for publication as a hard-cover book an INDEX TO THE SCIENCE-FICTION MAGAZINES. Started in 1935, it covers all of the American science-fiction and most of the fantasy magazines from the first in 1926 thru 1950. THRILLING WONDER STORIES, STARTLING STORIES, CAPTAIN FUTURE, FANTASTIC STORY QUARTERLY and WONDER STORY ANNUAL are covered as well as THRILLING WONDER's predecessors AIR WONDER, SCIENCE WONDER, WONDER STORIES and WONDER STORIES QUARTERLY and 36 other publications—over 1250 magazines altogether. All stories and articles are listed alphabetically by both author and title and there will be a checklist of all magazines indexed.

In addition, it is desired to include all the information on pseudonyms that can be *definitely verified.* To insure correctness, only data from such first-hand sources as the authors themselves, editors and agents will be used.

Therefore, I would like to ask that all authors who have used pen-names in the science-fiction or fantasy fields send me the information at the address below. In the case of individual pseudonyms, the name alone is sufficient. Where stories have appeared under "house names," I will need the titles of each story and the by-line under which they appeared.

Since transcription of the final copy from the file-cards will begin shortly after the first of the year, the sooner this information is received, the more certain it is of inclusion. — *3435 NE 38th Ave., Portland 13, Ore.*

You've got a head start with Merwin's breakdown in TWS—and from here on, I'd prefer to let the authors give you the dope first hand. A good index is a colossal job and you have our admiration and sympathy. Good luck.

ENTHUSIASM
by Gene Krumlauf

Dear Ed: Boy, what an Ish! It was adequate, capital, excellent, immaculate, and "wholesome"? In one syllable, it was good.

Here is my run down of the issue (if anybody cares).

1. Cover: One that you can show your parents or girl-friend. Keep them coming.

2. THE STAR WATCHERS: Personally I like that kind of story. A long one with a good plot.

3. THE GAMBLERS: Not a bad story and a swell ending.

4. GREASE IN THE PAN: Just right for a short.

5. THE CUPIDS OF VENUS: Not bad.

Features: Not bad, or am I repeating myself? Good luck to you and all S.F. Fans! — *2401 East 6th St., Tucson, Arizona.*

After that what can we say but that we love you too?.

TIGHT LITTLE ISLE
by Capt. K. F. Slater

The form of address doesn't need much change, Mr. Mines, so . . . Dear Sam: It seems a long time since I pushed a letter in the direction of SS, or TWS, and it is even longer since I managed to creep into the Letters Section, so I guess I'll have to start plugging away.

The fact that Sam Merwin has given way to Sam Mines is just a teeny bit annoying, as it would appear having spent much time and energy getting square with Sam The First, I've now got to start all over with Sam The Second.

Not that I object to you, Sam. In fact, I quite liked your modest statements in your editorial and the preface to CURRENT FAN PUBLICATIONS. Given time, a few helpful hints from your readers, you will doubtless manage to keep SS going, and I'll be very happy. I would strongly advise you to ignore all helpful hints from readers, including any I proffer, too. Trying to follow them all would be most confusing.

But to my pet peeve of the moment:

I thought everyone had got the meaning of that encoded address of mine. Firstly, I am not in the air force, the navy, or the space patrol. I am in the British Army, hence Capt. (Captain). The next little bit is my unit: 13 Group, Royal Pioneer Corps. Now my unit is in Germany, therefore B.A.O.R.—British Army On the Rhine. The numeral following that is just the postal number for the benefit of the Army Post Office.

Then the review of OPERATION FANTAST in the November issue. Please, it was not O.F. you reviewed, but O.F. NEWSLETTER, a connected-but separate publication. O.F. runs to twenty printed pages, not a miserable four photolith sheets of foolscap reduced to microcosmic size. The sub rate covers both and also membership of OPERATION FANTAST, which is slightly more than a fanzine. You may or may not have received our 1950 HANDBOOK, but just in case you haven't (it was addressed to Sam Merwin) I'm having Derek Pickles send you another copy. That contains the full dope on O.F., plus a lot of other stuff about s-f in general, including a listing of all magazines, editorial addresses, sub rates, and so forth. Needless to say, SS and your associated mags are included.

Which doesn't leave me much space, does it? I note if one goes over-leaf on an air mail form, your printers always ignore the back half, so I'll have to say just a few words about the Nov. issue here. As I've not yet read anything 'cept the editorial, the letters and the story captions, I'll not be able to say much, shall I? But this was one of the better covers, tho I fear that Mars and Earth are too close for accuracy. The no-policy-except-to-give-the-best-of-all-available-stuff is a policy I like, although it can result in some awful things, as witness one of your rivals. A fairy tale need not be illogical, by the by. Try reading Dornford Yates' THE STOLEN MARCH! — *13 Gp. R.P.C., B.A.O.R., 15, c/o G.P.O., England.*

Thanks for the breakdown on that address—it was haunting me, nights. And I appreciate more than I can say, the very warm way in which you and the fans have accepted the change and taken me to your collective bosoms. This is going to make it embarrassing when it comes to swapping insults a la Merwin. I've had plenty of practice—I shared an office with Merwin for the better part of nine years and if you think the insults were thick in his columns, you should have heard what passed for dialogue in that office. So—no cracks about your labeling a certain orb on the cover of November SS as Mars. . . . Anyway, I'm glad that first editorial passed your critical judgement. As to the fanzine reviews, you'll find the name of Jerry Bixby signed to them now—a name you'll likely remember. Jerry is a lad hep in these matters and I am very glad to have him backing me up. With SS on a monthly basis there's a bit more to do.

You'll also find a review of the book (*Tomorrow-Sometimes Comes*) you sent me, in the column reserved for that purpose.

RETURN OF THE NATIVE
by Larry Farsace

Dear Mr. Mines: I thought you might be in-

terested to know that after an absence of a decade or so an old time fan is returning to stf. Your latest issue helped a lot, being like a magnet with its beautiful cover featuring THE STAR WATCHERS. However, just in case you're interested in knowing the truth, the chief reason for my purchase of the magazine is because the readers' departments seem so extraordinarily alive with all sorts of pet peeves, reminiscences, bouquets, and flower pots. In fact, believe it or not, it was your reader's department that really sold me the issue!

First of all, there was the long letter by W. Paul Ganley. Gosh, that was a honey, especially that part about a fan putting everything he's got into his brain child fanzine. It reminded me of my own GOLDEN ATOM, put out for about ten or eleven issues back in '40 or thereabouts, and the work we did for sheer love, including a trip down to Maryland just to secure a stray unpublished verse by Weinbaum, as well as several trips to New York to obtain material personally from such celebrated personages as Virgil Finlay, Jean Cummings, and Hannes Bok.

As you see, I have a lot to do in order to catch up with what was missed in the past decade since GOLDEN ATOM went into suspended animation. (Incidentally, W. Paul Ganley, wasn't there another mag called FAN-FARE published back in '41?) I guess I'll never know some of the stf. classics (?) missed. Has there been anything as good as the old Weinbaum or Clark Ashton Smith stories? As for the stf, fan magazines, I guess I'll be completely out of luck there unless there has been some way to keep track of the relative merits of the many thousand large and small affairs there must have been in all parts of the country in the space of ten years.

By the way, in case you've had the patience to follow through on my letter so far, would you allow me to mention my latest avocation—of songwriting? Its a song called *Be With Me*, recorded by the Copacabana Orchestra, to be released by Louie Prima's Robin Hood Records soon—I hope. Thanks for the plug! — *187 North Union Street, Rochester 5, N. Y.*

Though we reprint some of the old classics in FANTASTIC STORY MAGAZINE and WONDER ANNUAL for their historical value and for collectors and for the benefit of those who might have missed them, it is our contention that stf has *moved* since you were around last and all you have to do to convince yourself is to read THE STAR WATCHERS in the November issue, JOURNEY TO BARKUT in the last issue and VULCAN'S DOLLS in this one. I simply don't think the old stuff touched it, good as it was for its time.

Incidentally, you missed a helluva lot of great stories while you were missing—that terrific Kuttner run—DARK WORLD, MASK OF CIRCE, LANDS OF THE EARTHQUAKE and the Hogben shorts, not to mention dozens of others; Leigh Brackett's wonderful SHADOW OVER MARS and THE SEA KINGS OF MARS, Murray Leinster's DISCIPLINARY CIRCUIT trilogy and his wonderful LAWS OF CHANCE, Fred Brown's WHAT MAD UNIVERSE, the Oona and Jiks series by Margaret St. Clair, AGAINST THE FALL OF NIGHT by Arthur C. Clarke —well I can see we're going to have to publish some reprints to bring you up to date. Anyway, welcome home.

GRIPE RIPE
by Larry Walker

Dear Mr. Mines, So we have a new editor among us eh? Or is he new? Sam Merwin, Sam Mines; hmm. Oh well, down to the business at hand. The top story in the mag was natch the Russell yarn, but I got a question about it. Where did Raven and the rest of the Watchers come from? Were they humans originally, or were they Gods or what? Of course some of the readers who claim to be geniuses will have it all figured out, I suppose.

Number 2 was THE GAMBLERS, a very good story but how was he sure that an even amount of poison would get in each bottle?

Number 3 and very close behind was GREASE IN THE PAN. I'm always a sucker for a trick ending.

Number 4 and last, but still a fine yarn, was THE CUPIDS OF VENUS—another tricky one, but I guessed the ending and it spoiled the story. Now for the features.

I like your way of reviewing the fanzines better than the old way. Book reviews were there, that's all I've got to say about them. Movie news was ditto. W. Paul Ganley gripes me period. Of course he's probably a fine guy. But you couldn't tell by his letter. Hold on a minute; I just got called away for a while and have had a change of mind. Who am I to be griping about Ganley when I haven't even read his mag? So if Ganley read this I hope he reads on and sees my apology. Two top letters were by Bob Hoskins and Joe Gibson. — *2367 Wolcott, San Diego, Calif.*

Don't see any great mystery about where Raven and the rest of the Watchers came from. Read the last page of the story again and follow Lomax' thoughts carefully. You'll see what happens to Homo Sapiens through the transmutation we commonly call Death. According to Russell, that is.

AFTERTHOUGHT
by Edward G. Seibel

Dear Editor: After thinking about and over a certain letter in which I bitterly criticized Mr. Merwin's story, I have come to the conclusion it should never have been written. If by some chance you are considering its publication (which I doubt) please do not print it. — *P.O. Box 445, Olivehurst, Calif.*

Having already printed the letter in our last

issue, Ed, the least we can do is to run your very handsome apology. What caused the change of heart?

MUSIC OF THE SPHERES
by Chester A. Polk

Dear Sir: This is the first time I have written to your magazine, although I have been reading it for more than a year now, and think it is a fine job.

What made me write this time is that I have just come back from a trip South, which included one evening at the New Orleans Convention. All I saw was the last night of it, but I certainly was impressed by the high level of the entertainment offered, and by the people I met there. I even spoke to Mr. Fred Brown, who is the co-author of a really first-rate story in your current issue!

By the way, I think this whole issue is exceptionally good. The Eric Frank Russell story is one of the best—maybe *the* best—science fiction stories I've ever read. I know he has a book out now called DREADFUL SANCTUARY. What else has he written? If any of your fans would care to get in touch with me (at the address below), I would be very happy to hear from them. I would particularly like to know where I can find old stories (more than two years old) by Russell, Brown, Brackett, Hamilton, and Van. Vogt. Of course I've read some of them in the anthologies, but I'm sure there are many I've missed.

I would also like to find out something that puzzled me at the Convention. The evening I was there, they had a very good skit in which one of the actors was a professional writer, and a very funny lecture with slides delivered by another of the professionals present. But I didn't hear any singing. Aren't there any science fiction songs? I asked a few people, but none of them seemed to know. If any fan can tell me more about it, I'd appreciate hearing.

This letter is getting too long. But before I close, I do want to tell you how much I like your new covers by Schomburg. I think they're much more science-fictional than the old kind. I hope you find room to print this letter, as I should like to hear from some other fans. — *Wernersville, Pa.*

It's kind of comforting at that, to have so many people agreeing with you. We thought THE STAR WATCHERS among the very top stf stories we've ever read and nobody has publicly disagreed with us yet. As to science-fiction songs—didn't you ask the editor of TWS the same question? For fuller discussion, see February's TWS.

APPROVAL
by Gerald Hibbs

Dear E. V.: You'll find the longest part of this letter is the heading. Just wanted to say two things:

1st: Liked the November SS cover by Schomburg very much.

2nd: Three long, loud cheers for Earl Newlin, Jr., and his letter.

Oh, yes (for this I could get my ears chopped off), I don't see anything wrong with Bergey. — *Box 262, Detroit Lakes, Minn.*

Suggestion: wear ear muffs. Ennywho, what's wrong with the Bergey on this cover? The babe? She should happen to you. And how do you like Bergey's developing techniques?

AND SOME MORE
by Paul W. Blake

Dear Mr. Mines: This is the first time I have ever written to a science fiction magazine editor, although I have been reading science magazines—both fictional and otherwise—for several years.

I have just finished the November, 1951 issue of SS, and here is my rating of the stories:

I. *The Star Watchers* by Eric Frank Russell—Very good plot—Excellent suspense—Let's have more of Mr. Russell's work!

II. *Grease in the Pan* by Sam Merwin, Jr.—One of the best short stories ever—Unique plot.

III. *The Cupids of Venus* by William Morrison—Interesting enough, but too much detail.

IV. *The Gamblers* by Reynolds and Brown—Just a fair story, but I especially liked the way Bob Thayer increased his chances of living by mixing the poisoned oxygen with the dozen good bottles of it. This made for a satisfying conclusion at least.

I also like to read the letters in TEV, and hope I can be lucky enough to get a letter in it sometime.

Alex Schomburg produced an excellent cover for this issue of SS. No beautiful, but scantily clad, women. Not that I have any objections—far from it—but it is a nice change as long as it isn't permanent.

I enjoy reading the Movie News feature. I have seen *Rocketship XM, Destination Moon,* and *The Thing. Destination Moon* didn't have much of a plot, but was more scientific than the other two.

You publish a very good all around magazine, and I like your companion to SS, Thrilling Wonder Stories. (I believe you publish both mags.) — *410 Enid Street, Houston 9, Texas.*

We are only at the threshold of a new era in covers. While Bergey seems to have specialized in babes and Schomburg in gadgets, don't let that mislead you into typing the boys. Schomburg can do gals like nobody's business and Bergey can do gadgets and lots of other things. You saw his cover for JOURNEY TO BARKUT in January, didn't you?

THE PIXIE TOUCH
by Evelyn M. Catoe

Dear Editor: I have only one reason for writing this letter and that is to tell you how much I liked the novel, THE STAR WATCHERS, in your November issue.

For some reason I am not inclined to be whimsical and so my letters are apt to be monot-

onous; just the same I intend to express my opinions.

Here are my ratings:

2. THE GAMBLERS—A very good example of "menace from the stars" the suspense nearly made me turn to the ending first but I suppressed the desire and won my reward of a nice climax.

3. THE CUPIDS OF VENUS—Obvious.

4. GREASE IN THE PAN—This plot has been so overworked that even Shakespeare couldn't write a good story around it, and the writer isn't a Shakespeare.

The score how stands at fifty. Want to try for a hundred?

Did I say that I wasn't whimsical???? I beg your pardon it must be the ham in me. Every time I sit down to write a fan letter this seems to happen it starts out sensible and ends up looking like I'd been under the affluence of incohol.

There doesn't seem to be anything else to say but good-by, hoping the next issue is even better. — *323 Powers Street, New Brunswick, N. J.*

This affluence of incohol is responsible for a lot of strange effects. For instance there's the science fiction joke about the two drunks who were fooling with a flashlight. Said one: "If I shend thish beam of light shtraight up inna air, I betcha six million dollars you can't climb up it."

"Nothing doing," shaid—('scuse, said) the other. "I'd get about halfway up and you'd turn it off."

WINDUP

by Donald C. MacKechnie

Dear Mr. Mines: First, let it be said that I don't want to enter into the long-standing debate regarding the merits, or lack of same, inherent in SS covers. As long as the stories sandwiched between them remain uniformly good I shall continue to haunt the newsstands with two-bits clutched in my hot little hand.

Second, a number of fans rate one story from the July issue, namely: Richard Matheson's WITCH WAR, as something better than the ordinary. For myself, I can't see it. I agree with E. E. Newlin, Jr: Matheson should stick to *one* style—preferably a style other than the one employed in this nightmarishly awful little tale. Perhaps, though, Merwin let it through the gates because its style was actually STARTLING?

Third, you mention in TEV that few authors have delved into the possibilities of crime in the not too distant (5000 years hence) future. Perhaps you overlooked Kuttner's PRIVATE EYE, which was published in January, 1949, by one of the competition—it was included in Bleiler & Dikty's BEST OF 1950. A honey of a yarn, with a really *new* twist. (To me, anyway.)

Fourth; a request. For a number of years a story has been haunting me. I read it while still in high school, long before I thought the navy would get me . . . approximately 1939 or 1940, although I wouldn't swear to it. It was the first scientifiction I had ever read, and did *not* make me an omnivorous reader—until about two years

[*Turn page*]

ago. I have never forgotten the story (still can't get it out of my head); anyway, I began buying up TWS, SS, WSA, and anything else I could lay my hands on, past or present, in an effort to find *that story*. So far, no luck.

I appeal to you, or to any of the myriad readers of SS, for help. Plot follows (as nearly as I can remember):

Hero and party arrive on Mars and find the planet deader than last year's petunias, except for seven children. A great civilization has vanished, leaving behind it great buildings, tremendous machines, unthought-of intelligence, and an ever greater heritage. But the whole works won't work. Hero and party play needle and haystack looking for the gimmick which will set the great dynamos, etc., percolating again, but find nothing except what seems to be seven banks of dials (puzzles, sort of), set in triangular form. All the while, hero and party take care of seven waifs. Then, one day, one of the kids gets hold of a pencil and the marks he makes resemble one of the triangles! On hunch, hero herds all seven into room containing seven triangular gimmicks. The kids go at it slow, but are successful, and Mars hums again. With aid of new ally, Mars, hero and party return to Earth with a fleet of ships, bent on saving their nationality from extermination at the hands of another. (I don't remember the reason hero and his party had for going to Mars in the first place, but the story certainly was a humdinger.)

I don't know what mag published it, nor what the author's name was. But I'll die happy if I ever read it again.

Incidentally, I've been accumulating rejection slips for about 8 years, and am presently polishing up a short story which will presently land on your desk with a wallop (I hope). Also have a novel, if that's what you call 30,000 words, in the works. Trust you won't blow a hole in your head when you see them.

That's about it, except for this: If there are any stf fans in or around this neck of the woods interested in getting together for mutual benefit, we already have the nucleus of a wide-awake group under way, and would appreciate hearing from others.

I wrote that last paragraph just in case you can't recall the story (see above), and throw my salvation to the colonies.

If this letter sees print, in part, or in its entirety, thanks muchly.

Yours for more and better stf yarns in the near future. — *521 - 19th Ave., N. W. Calgary, Alberta, Canada.*

Fortunately, we do not remember story described above. But somebody will, count on it. So you'll be able to die happy. The remarks on the detective slant in stf were just tossed in to start an argument—am I glad I said "few" authors instead of "no" authors!

What did you think of Pratt's DOUBLE JEOPARDY?

So there you have it for another issue. We'll be back next month, in just half the usual time. Be seeing you.

—*The Editor.*

SCIENCE FICTION BOOKSHELF

REVIEWS OF NEW BOOKS

TOMORROW SOMETIMES COMES by F. G. Rayer, Home & Van Thal, London, 9s 6d, which works out to about $1.35 net.

WITH the world trembling again on the verge of war, it is more than likely that a careless word, a gesture, an order may set off the holocaust. So it is in this British book, in which the hero, Major Rawson, falls victim to a combination of circumstances which leads him to believe the enemy is attacking and gives the order to "retaliate." He is undergoing an operation while enemy planes drop an atom bomb or two neatly on the hospital, and the combination of powerful anaesthetic and atomization tosses Rawson into a state of suspended animation from which he awakens two generations later.

The world is in a pretty bad mess, bomb craters and mutants all over the place. The prevailing salutation is "Cursed be the name of Rawson". His descendants are hunted and killed as outcasts. The mutants—telepaths—are outcasts too and they are planning a revolt which calls for invading the cities and capturing the Mens Magna—the mechanical brain—which regulates all human life. An immense machine covering square blocks, it answers all questions, interviews thousands of questioners at one time and is self-regulating, self-repairing and self-improving. Having become wiser than any human, the machine has decided that man's suffering is greater than his happiness and so man must go.

Rawson's coming has changed the factors, however. The machine says that although time travel is impossible, Rawson can travel back on his own time track and undo the original decision which led to war.

The jacket will remind you of the old Paul illustrations in WONDER. Despite a somewhat pulpy look, this is a solid British job of good writing, good characterization, plenty reader identification. It has action, but does not fall into trite action patterns. If you are interested in buying a copy, write

[*Turn page*]

Capt. K. F. Slater, 13 Gp. R.P.C., B.O.A.R. 15, c/o G. P. O. England.

THE CITY IN THE SEA by Wilson Tucker, Rinehart & Co., Inc. New York, $2.50.

Tucker's version of the future is one of woman dominant, thought of which should make some males lick their chops and others cringe. A woman's army of occupation troops is holding down an unidentified country in boredoom, having no interest in the scrawny native males, when a bronzed, magnificent barbarian arrives from over the mountains. He is bigger than the women—the first such male they have ever seen—and tough female warrior hearts begin to flutter like school-girls. The barbarian leads a troop on a scouting expedition over the mountains to find his land—an expedition from which they never return. The gimmick is that there is a shortage of women in his native city and he has taken it upon himself to bring back some matriarchal fodder.

Personally we thought this a rather slim plot for a full-length novel. It is pieced out with some ordinary adventures of the gals en route. And as science fiction it is on the elementary side. However, we repeat an idea that has before now occurred to us in this respect: As an introduction to science-fiction, as a gift to a new science-fiction reader, this sort of book is probably a better choice than one of the more complex types such as we run here. On that basis it may attract new readers where a tougher reading job could scare them off. But having said so much, it is about all that can be said for the book. The writing is proficient enough, but there are no memorable characters or ideas. The infinite possibilities of a society in which the Amazons are dominant, and the males are only unimportant hangers-on, are barely scratched.

This story could have been a sober commentary on a reasonably probable future state, or it could have been humor, satire or farce. Instead it was told as straight and rather mild adventure.

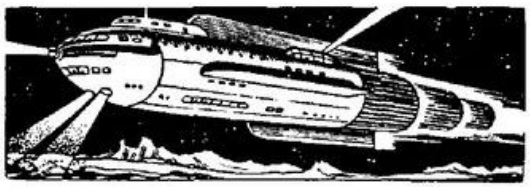
THE OUTER REACHES by August Derleth, Pellegrini & Cudahy, New York, $3.95.

Anthologist Derleth has come up with the interesting idea of collecting, not so much his own favorite stories, as the favorite stories of the authors themselves. And so here we have some of the very top names in science-fiction—each represented by a story upon

which he looks with a very special affection or sentiment for a personal reason.

Stories include THE POWER by Murray Leinster, INTERLOPER by Poul Anderson, DEATH SENTENCE by Isaac Asimov, CO-OPERATE OR ELSE by van Vogt, FARE-WELL TO EDEN by Theodore Sturgeon, GIT ALONG! by L. Sprague de Camp, YLLA by Ray Bradbury, SHOCK by Henry Kuttner, THIS IS THE LAND by Nelson Bond, THE PLUTONIAN DRUG by Clark Ashton Smith, PARDON MY MISTAKE by Fletcher Pratt, and more.

The temptation to see what an author's own favorite story may be is overpowering, even if the result is not always a happy one. This reviewer had read Poul Anderson's INTER-LOPER earlier in magazine form; re-read now it seems rather more like a western than at first. Bond's THIS IS THE LAND is thin and the gimmick is very hackneyed, but it comes not from a stf magazine—from *Blue*



Book, which makes a difference. De Camp's SERVICE FIRST is a satire on the dude ranch, with dinosaur-like lizards from a far system playing cowboy. Fritz Leiber's THE SHIP SAILS AT MIDNIGHT is a science-fiction version of adolescent love. Leinster's THE POWER is a delicately written story of frustration in which a man from another and superior civilization tries to pass on his knowledge to a greedy, superstition-ridden man of the 15th Century.

There is good, bad and indifferent in this collection. As de Camp says in the introduction to his own story: "I had a lot of fun writing it; I enjoyed reading the manuscript when I finished; and I thought it still looked good when it appeared in type. Of course that doesn't prove that it is good (for a writer's opinions of his own works seldom coincide with those of his readers). . . ."

You may agree on that score. But you'll find it interesting, nevertheless, to see what story the writer himself liked best and to try and analyze it, to see if you can understand why he felt that way about it. If you can stand the $3.95 tariff, you'll probably want this book in your collection.

—*The Editor*

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF Startling Stories, published bi-monthly at Kokomo, Indiana, for October 1, 1951. 1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Better Publications, Inc., 10 E. 40th Street, New York, N. Y. Editor, Samuel Mines, 10 E. 40th Street, New York, N. Y. Managing editor, None. Business manager, Harry Slater, 10 E. 40th Street, New York, N. Y. 2. The owner is: Better Publications, Inc., 10 E. 40th Street, New York, N. Y.; N. L. Pines, 10 E. 40th Street, New York, N. Y. 3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: None. 4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner. Harry Slater, business manager. Sworn to and subscribed before me this 1st day of October, 1951. Eugene Wechsler, Notary Public. (My commission expires March 30, 1952)

REVIEW OF THE CURRENT SCIENCE FICTION FAN PUBLICATIONS

WE HAVE at hand the NOLACON booklet, containing ye Conventionne Programme, pages of earnest advertising by sci-fantasy publishers and bookshops and some fanzines, and salutations to those assembled from various fans and the editorial staffs of most of the promags in the field—

With any message of greeting from Standard Magazines howlingly conspicuous by its absence.

In this unhappy connection, we have also at hand a letter from Harry B. Moore, NOLACON Chairman, explaining that the welcoming cry which we prepared and sent down for inclusion in the booklet went mysteriously awol after its arrival at the printer's—just crawled under the hell-box or something, didn't get set up, and wasn't missed until the booklet was run off. While lamenting this snafu, we accept Mr. Moore's apology with maximum good will, being only too familiar ourselves with the horrifying knack copy has for turning up missing. And we regret having been unable to attend the 'CON in person; to those who did we extend our belated very best wishes—we hope you had a swell time.

At our third hand is a letter from Elihu Mueller Meltzer, who wishes to know if the Science Fiction League, which we used to sponsor, is still in existence. We are sorry to reply that it is not; the League, whose sole function seems to have been the dispensing of lapel-buttons, dribbed away into nothingness some years ago. But there are numerous other Stefan organizations around, engaged for the most part in more rewarding activities than the above, and anyone interested can probably connect by studying the promag letter columns (and fanzine reviews) and writing to the groups therein mentioned. Choices range widely from rocket societies to the Second-Stage Slans of Sophomoria, so you steps up and takes yours.

(H'm . . . Stefan . . . Hi, Stefan! . . . Stefan was here! . . . Have we coined a term?)

We prod the heap of fanzines on our desk, and out crawls on many legs:

QUANDRY, 101 Wagner Street, Savannah, Georgia. Published "every as monthly as possible at the sign of the unsigned sign by Proxyboo, Ltd." Editor, Lee Hoffman. 10c per copy, $1.00 per year.

Quandry's first anniversary issue, entitled Quannish, and very, impressive it is. One hundred whopping pages, crammed with articles, poems, spoofs, artwork and fiction—none of it less than fan-fair, some better. We especially enjoyed Walter A. Willis' well-worded wanderings anent the recent London fanclave and fandom in general—good smooth stuff. Editoress Hoffman's rather skilful "The Tragedy of Fannius McCainius" (Vernon L.?) brought a cannonade of delighted yaks from us, and we dutifully dropped our jaw to the floor upon sighting the "news-flash!" on page 57 . . . until, halfway to the phone to check with HLG, we realized it was a cooked-up job. Dirty trick; left a dent in the floor.

Plaudits are due Quandry's typing and mimeoing departments, for a back-breaking task well done.

PEON, Fleet All Weather Training Unit, Pacific, c/o Fleet Post Office, San Francisco, California. Editor, Charles Lee Riddle, PN1, USN. Published bi-monthly, "time, material, finances and the Navy willing." 15c per issue, nine issues for $1.00.

The above-listed obstacles are periodically swept aside by Lee Riddle's determination to put out a good fanzine—come rain, snow, hurricane or All Weather, Peon emerges blithe and bouncing, with a predictably low crud-count. Highlighting this issue are E. Hoffman Price and Anthony Boucher, with pieces bearing a curious relationship: Price hauls off and swats formula-minded editors and publishers who buy and peddle the same old hackety year after year; and Boucher swings lustily at mouse-brained writers who send an editor everything, but everything, except what he wearily advertises as his wants. We agree with both, and doubt that anything short of Armageddon will give them reason to feel differently. Also included in this issue: Lee's chatty editorial column, good book reviews, an interesting article and a fair story, the latter entitled "Harbringers"—either a misspelling or an inference that sails way over our head. Layout and reproduction superior.

SLUDGE, 2 Spring Gardens, Southwick, Brighton, Sussex, England. Editor, Bob Foster. Price, "three issues for one current USA s-f promag or 2 shillings in cash."

Nice package—format and cover illustration—but the contents are a bit of a disappointment. Three stories are in evidence, two of which draw no recommendation of mercy from this jury; the third is somewhat better, but it can't carry the 'zine by its lonesome. Sludge looks to be hand-set however, which, despite great gobs of typographical errors, is evidence that someone is sweating bullets . . . and the artwork isn't bad. In fact, it's pretty good. So maybe Sludge will improve with udge.

ADOZINE, 2058 East Atlantic, Philadelphia, Pennsylvania. Editor, W. C. Butts. Published bi-monthly. 10c per copy, 50 per year.

Composed this trip of the usual advertisements for stf books, magazines; also an adv. for (we quote) "genuine glossy nude art photos of lovely Parisian girls." Science-fiction fannies, perhaps? Adequately mimeographed. Good buys listed. Nuff said.

SCIENCE AND CULTURE MAGAZINE, Holly Circle, Sterling, Virginia. Editor, Stanley E. Crouch. Published bi-monthly. 15c per copy.

A fanzine of rather cerebral bent, containing short articles on World Government, agnosticism, auto-suggestion, the force of gravity and Mary Baker Eddy. Also reprints of pieces by Einstein and Maeterlinck. Some of the opinions expressed we'd be willing to argue, but all in all we enjoyed this one muchly. More.

Next we have a letter from Al Lewis, Chair-

[*Turn page*]

man of the Associate Membership Committee of the Los Angeles Science Fantasy, the gist of which is that LASFS needs associate members in order to continue publishing the club 'zine, SHANGRI-LA.

SHANGRI-LA is sweet sixteen and never been missed—but this singular record in fanzine publishing now threatens to be terminated by a dearth of dollars. Associate membership in LASFS costs one buck, which will go directly toward publishing expenses. Unfortunately Lewis' letter bears no return address, so those interested will have to scratch up that information elsewhere. But it sounds like a buck well spent—we'd hate to see SHANGRI-LA go under.

THE JOURNAL OF SGIENCE-FICTION, 1331 W. Newport Avenue, Chicago 13, Illinois. Editors, Charles Freudenthal, Lester Fried, Edward Wood. Published three times a year. 25c per copy.

A newcomer, and to our way of thinking a new high. JSF's editorial threesome have assembled thirty-two pages wonderfully free of crud, cuteness and egoboosh-wah, and they promise, in their prospectus, to make a habit of it. Martin Gardner leads off with a short article on H. L. Gold—a sound, professional job. Ray Bradbury analyzes himself. Edward Wood further analyzes Ray Bradbury. Charles Recour analyzes Hamling's **Imagination,** and Robert Bloch gravely analyzes the food-population crisis, concluding that a vast and generally untapped source of food-supply lies in the population, itself—i.e., let's all become anthropophagites. Very well—who'll be first to step up to the bloch? Hiding for no apparent reason behind the byline "Anonymous," someone is present with a short but solid rundown on "The Decline of the Pulps"—one of the best items in the book. Others on the contents page are Fritz Leiber, Ted Carnell, John H. Pomeroy, Ken Slater. Cover and format (photo-offset) are neat and unpretentious; JSF's tone is adult and objective. Fix your interested gaze on this one—it isn't going places, it's already there.

ASMODEUS, combined with GARGOYLE, 1475 Townsend Avenue, New York 52, New York. Editors, Alan H. Pesetsky and Michael DeAngelis; Interior Decorator and Associate Editor, Henry W. Chabot. 15c per copy, four for 50c.

Another new one, and, while hardly up to JSF, a better than average starter. ASMODEUS' inclination toward fantasy and fantasy-poetry bounces off our hard head without noticeable effect, but other items included are of superior fan-caliber. Co-editor DeAngelis triple-threats with a poem (see above), a short mood-piece (likewise) and a sensible reply to the fashionable notion that Lovecraft is old-hat. Bob Silverberg's "A Brief History of Fandom" has a number of good yaks in it, and Henry Steiner (née Chabot) is present with a story entitled OUTSIDE, which, though rough in spots, has something fan-fiction all too often lacks—a nice human feel, sans melodrama and sooperdooperscience and so-called humor. Also included: an article by C. S. Blinderman on "Religion and Science," which treats its subject well, and assorted poems and esoteric bits. Artwork by the busy Mr. Chabot is definitely above par, and Asmodeus is neatly laid out and mimeoed. Might try this one.

That's about all the fanzines we have on hand this month . . . but more will come in, and we'll be standing by to opinonate in the April *Thrilling Wonder Stories.* See you then.

And Merry Christmas!

—JEROME BIXBY

$100.00 A WEEK in CASH
PAID DIRECT TO YOU

FAMILY HOSPITAL PLAN

SAVE MONEY!
There's a big advantage to buying this policy by mail. This method of selling is less costly for us—and that's another reason why we are able to offer so much protection for so little money.

Policy Pays for a Day, a Week, a Month, a Year—*just as long as necessary for you to be hospitalized!*

JUST LOOK
The Large Benefit This Low Cost Policy Provides!

The Service Life Family Hospital Plan covers you and your family for about everything—for *every* accident, and for *all* common and rare diseases after the policy has been in force 30 days or more. Very serious disease such as cancer, tuberculosis, heart disease, diseases involving female organs, sickness resulting in a surgical operation, hernia, lumbago and sacroiliac conditions originating after the policy is in force six months are all covered . . . Hospitalization caused by attempted suicide, use of intoxicants or narcotics, insanity, and venereal disease is naturally excluded.

The money is all yours—for any purpose you want to use it. There are no hidden meanings or big words in the policy. We urge you and every family and also individuals to send for this policy on our 10 day free trial offer—and be convinced that no other hospital plan offers you so much for your $1.00 a month!

TWO SPECIAL FEATURES

MATERNITY
Benefits At Small Extra Cost
Women who will some day have babies will want to take advantage of a special low cost maternity rider. *Pays $50.00 for childbirth* confinement either in the hospital or at home, after policy has been in force 10 months. Double the amount on twins.

POLIO
Benefits At No Extra Cost
In lieu of other regular benefits policy pays these benefits if polio strikes—
For Hospital Bills: up to $500.00
For Doctor's Bills while in the hospital, up to $500.00
For Orthopedic Appliances, up to $500.00
TOTAL OF $1,500.00

3c A DAY IS ALL YOU PAY
for this outstanding new Family Protection

Wonderful news! This new policy covers everyone from infancy to age 70! When sickness or accident sends you or a member of your family to the hospital—this policy PAYS $100.00 PER WEEK for a day, a month, even a year . . . or just as long as you stay in the hospital. What a wonderful feeling to know your savings are protected and you won't have to go into debt. The money is paid DIRECT TO YOU to spend as you wish. This remarkable new Family Hospital Protection costs only 3c a day for each adult 18 to 59 years of age, and for age 60 to 70 only 4½c a day. This policy even covers children up to 18 years of age with cash benefits of $50.00 a week while in the hospital—yet the cost is only 1½c a day for each child! Benefits paid while confined to any recognized hospital, except government hospitals, rest homes and clinics, spas or sanitariums. Pick your own doctor. Naturally this wonderful policy is issued only to individuals and families now in good health; otherwise the cost would be sky high. But once protected, you are covered for about every sickness or accident. Persons covered may return as often as necessary to the hospital within the year.

This is What $100.00 a Week Can Mean to You When in the Hospital for Sickness or Accident

Money melts away fast when you or a member of your family has to go to the hospital. You have to pay costly hospital board and room . . . doctor's bills and maybe the surgeon's bill *too* . . . necessary medicines, operating room fees—a thousand and one things you don't count on. What a Godsend this READY CASH BENEFIT WILL BE TO YOU. Here's cash to go a long way toward paying heavy hospital expenses—and the money left over can help pay you for time lost from your job or business. Remember—all cash benefits are paid directly to you.

Examine This Policy Without Cost or Obligation—Read It—Talk It Over—Then Decide

10 DAYS FREE EXAMINATION

You are invited to inspect this new kind of Family Hospital Plan. We will send the actual policy to you for ten days at no cost or obligation. Talk it over with your banker, doctor, lawyer or spiritual adviser. Then make up your mind. This policy backed by the full resources of the nationally known Service Life Insurance Company of Omaha, Nebraska—organized under the laws of Nebraska and with policyholders in every state. SEND NO MONEY—just your name and address! No obligation, of course!

REMEMBER—$100.00 A WEEK CASH BENEFIT IS ACTUALLY $14.25 PER DAY!

FREE INSPECTION . . . MAIL COUPON
The Actual Policy Will Come to You at Once Without Cost or Obligation

The Service Life Insurance Company
Hospital Department P-17, Omaha 2, Nebraska

Please rush the new Family Hospital Protection Plan Policy to me on 10 days Free Inspection. I understand that I am under no obligation.

Name.....

Address.....

City or Town.....*State*.....

THE SERVICE LIFE FAMILY HOSPITAL PLAN

SERVICE LIFE INSURANCE COMPANY
Assets of $13,188,604.16 as of January 1, 1951
Hospital Department P-17, Omaha 2, Nebraska

PAY NO MONEY—SEND NO MONEY!

My values in made-to-measure suits are so sensational, thousands of men order when they see the actual garments. I make it easy for you to get your own suit to wear and show — and to MAKE MONEY IN FULL OR SPARE TIME! MY PLAN IS AMAZING! Just take a few orders at my low money-saving prices—that's all! Get your own personal suit, and make money fast taking orders. You need no experience. You need no money now or any time. Just rush your name and address for complete facts and BIG SAMPLE KIT containing more than 100 actual woolen samples. It's FREE! Get into the big-pay tailoring field and earn up to $15.00 in a day! Many men are earning even more! You can begin at once in spare time to take orders and pocket big profits. All you do is show the big, colorful different styles. Men order quickly because you offer fine quality at unbeatable prices. Yes — superb made-to-measure cutting and sewing — and complete satisfaction guaranteed. It's easy to get first orders, but repeat orders come even easier. With my big, complete line you begin earning big money at once and you build a steady, big-profit repeat business at the same time.

No Experience — No Money Needed
EVERYTHING SUPPLIED FREE!

You need no money — no experience — no special training. Your friends, neighbors, relatives, fellow-workers, will be eager to give you orders once you show them the outstanding quality of the fabrics, the top notch fit of made-to-measure tailoring and the money-saving low prices. Every customer is a source of additional prospects. In no time at all, you'll find the orders rolling in faster and faster. And every order puts a handsome, spot-cash profit in your pocket! Mail the coupon for your big FREE OUTFIT of styles and samples NOW!

PROGRESS TAILORING CO., Dept. C-377
500 S. Throop Street, Chicago 7, Ill.

Mail Coupon for
FREE OUTFIT!

We supply everything—sample fabrics, full-color style cards, order forms, measuring materials — all packed in a handsome, professional leatherette-covered carrying case. Work full time or spare time. Either way you'll be amazed at how fast you take orders and how your profits begin to mount! Fill out and mail coupon today.

Send No Money — Mail Today — No Obligation

PROGRESS TAILORING CO., Dept. C-377
500 S. Throop Street, Chicago 7, Ill.

Dear Sir: I WANT A SAMPLE SUIT TO WEAR AND SHOW, without paying 1c for it. Rush Valuable Suit Coupon and Sample Kit of actual fabrics. ABSOLUTELY FREE.

Name.....

Address.....

City.....State.....