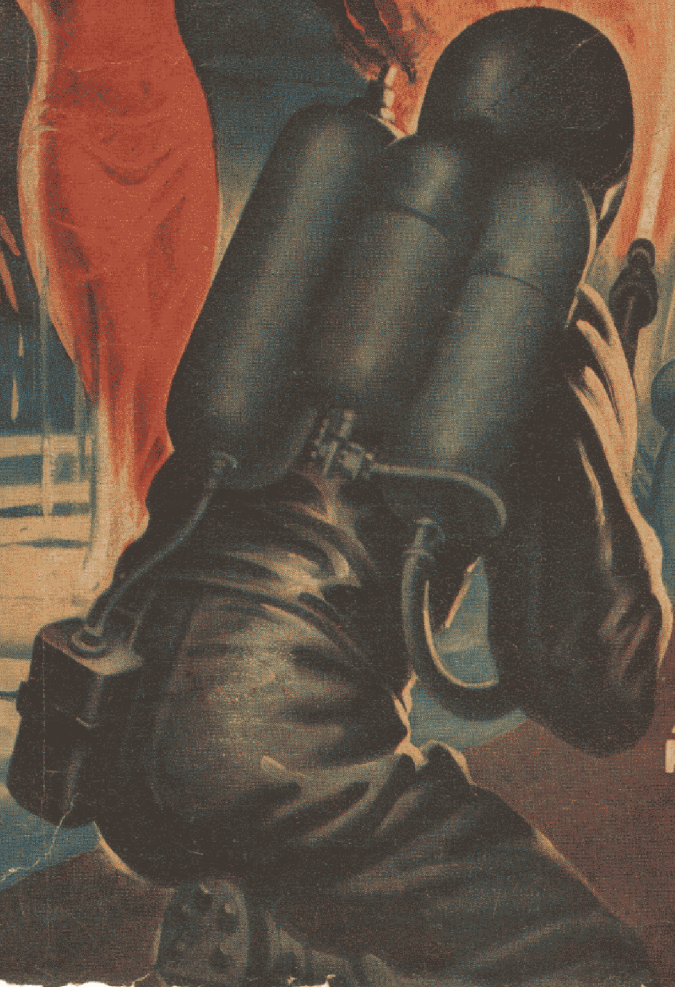


THRILLING

WONDER

STORIES

15¢
AUG.

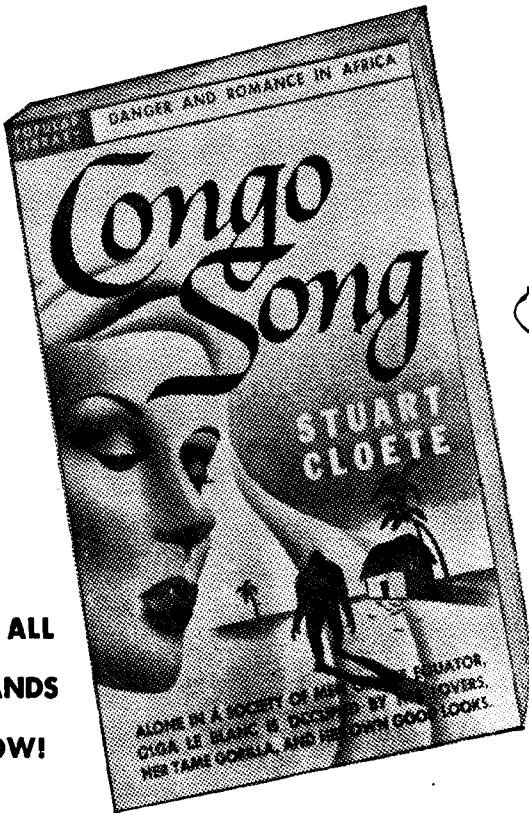


The
**DEADLY
DUST**
By WILLIAM
FITZGERALD

IN THE
CARDS
By GEORGE
O. SMITH

THRILLING
PUBLICATION

Stuart Cloete's Best-Selling
Novel of the African Veldt...



AT ALL
STANDS
NOW!

NATURALLY
a Popular
Library Book

A best seller in the original \$2.50 edition, Stuart Cloete's *Congo Song* may well break all records as a

POPULAR LIBRARY BOOK re-tailing at 25¢. We suggest that you purchase your copy without delay!

Take an alluring, sophisticated woman who follows her scientist husband-in-name-only to a botanical station in equatorial Africa — add five men shut off from all other women — bring to a boil in tropical heat — and you have the explosive recipe for *Congo Song*, Stuart Cloete's most daring best seller!

CURRENT POPULAR LIBRARY HITS

DUEL IN THE SUN by Niven Busch

BEDELIA by Vera Caspary

CRUCIBLE by Ben Ames Williams

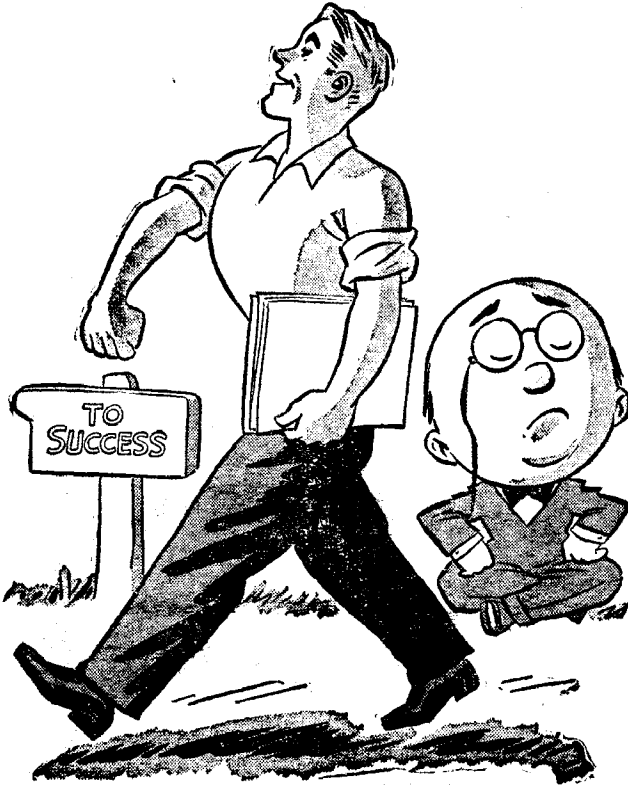
RAMROD by Luke Short

THE RED HOUSE by George Agnew Chamberlain



Popular Library, Inc., 10 East 40th St., N. Y. 16

How to pass a genius



All of us can't be geniuses. But any ordinarily talented mortal can be a success—and that's more than some geniuses are.

Now, as in Esop's time, the race doesn't always go to the one who potentially is the swiftest. The *trained* man has no trouble in passing the genius who hasn't improved his talents.

In good times and bad times, in every technical and business field, the *trained* man is worth a dozen untrained ones, no matter how gifted.

The International Correspondence Schools can't make you into a genius. For more than 50 years, however, I. C. S. has been helping its students to become *trained, successful leaders*—and it can do the same for you.

Mark your special interest on the coupon. Don't be like the unsuccessful genius who wastes his life in dreaming of what he intends to do. **Act now!**

INTERNATIONAL CORRESPONDENCE SCHOOLS



BOX 3968-J, SCRANTON 9, PENNA.

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

- | | | | | |
|--|--|---|---|--|
| <input type="checkbox"/> Accounting | <input type="checkbox"/> Advertising | <input type="checkbox"/> Chemistry Courses | <input type="checkbox"/> Radio Servicing | <input type="checkbox"/> Mechanical Drafting |
| <input type="checkbox"/> Arithmetic | <input type="checkbox"/> Bookkeeping | <input type="checkbox"/> Chemical Engineering | <input type="checkbox"/> Telegraph Engineering | <input type="checkbox"/> Mechanical Engineering |
| <input type="checkbox"/> Business Correspondence | <input type="checkbox"/> Business Management | <input type="checkbox"/> Chemistry, Analytical | Electrical Courses | <input type="checkbox"/> Mold-Loft Work |
| <input type="checkbox"/> Certified Public Accounting | <input type="checkbox"/> Commercial | <input type="checkbox"/> Chemistry, Industrial | <input type="checkbox"/> Electrical Drafting | <input type="checkbox"/> Patternmaking—Wood, Metal |
| <input type="checkbox"/> Cost Accounting | <input type="checkbox"/> Federal Tax | <input type="checkbox"/> Chemistry, Mfg. Iron & Steel | <input type="checkbox"/> Electrical Engineering | <input type="checkbox"/> Reading Shop Blueprints |
| <input type="checkbox"/> First Year College | <input type="checkbox"/> Foremanship | <input type="checkbox"/> Petroleum Refining | <input type="checkbox"/> Electric Light and Power | <input type="checkbox"/> Sheet-Metal Drafting |
| <input type="checkbox"/> French | <input type="checkbox"/> Good English | <input type="checkbox"/> Pulp and Paper Making | <input type="checkbox"/> Lighting Technician | <input type="checkbox"/> Sheet-Metal Worker |
| <input type="checkbox"/> High School | <input type="checkbox"/> Higher Mathematics | <input type="checkbox"/> Civil Engineering | <input type="checkbox"/> Practical Electrician | <input type="checkbox"/> Ship Drafting |
| <input type="checkbox"/> Illustrating | <input type="checkbox"/> Motor Traffic | <input type="checkbox"/> Architectural and Mining Courses | <input type="checkbox"/> Power House Electric | <input type="checkbox"/> Ship Fitting |
| <input type="checkbox"/> Postal Service | <input type="checkbox"/> Salesmanship | <input type="checkbox"/> Architectural Drafting | <input type="checkbox"/> Ship Electrician | <input type="checkbox"/> Tool Designing |
| <input type="checkbox"/> Secretarial | <input type="checkbox"/> Sign Lettering | <input type="checkbox"/> Architecture | Internal Combustion Engines Courses | <input type="checkbox"/> Toolmaking |
| <input type="checkbox"/> Spanish | <input type="checkbox"/> Stenography | <input type="checkbox"/> Building Estimating | <input type="checkbox"/> Auto Technician | <input type="checkbox"/> Welding—Gas and Electric |
| <input type="checkbox"/> Traffic Management | <input type="checkbox"/> Traffic Management | <input type="checkbox"/> Building Estimating | <input type="checkbox"/> Diesel-Electric | Railroad Courses |
| <input type="checkbox"/> Air Conditioning and Plumbing Courses | <input type="checkbox"/> Air Conditioning | <input type="checkbox"/> Contracting and Building | <input type="checkbox"/> Diesel Engines | <input type="checkbox"/> Air Brake |
| <input type="checkbox"/> Heating | <input type="checkbox"/> Heating | <input type="checkbox"/> Highway Engineering | <input type="checkbox"/> Gas Engines | <input type="checkbox"/> Car Inspector |
| <input type="checkbox"/> Plumbing | <input type="checkbox"/> Refrigeration | <input type="checkbox"/> Lumber Dealer | Mechanical Courses | <input type="checkbox"/> Diesel Locomotive |
| <input type="checkbox"/> Steam Fitting | <input type="checkbox"/> Steam Fitting | <input type="checkbox"/> Reading Structural Blueprints | <input type="checkbox"/> Aeronautical Engineering | <input type="checkbox"/> Locomotive Engineer |
| | | <input type="checkbox"/> Sanitary Engineering | <input type="checkbox"/> Aircraft Drafting | <input type="checkbox"/> Locomotive Fireman |
| | | <input type="checkbox"/> Structural Drafting | <input type="checkbox"/> Flight Engineering | <input type="checkbox"/> Railroad Section Foreman |
| | | <input type="checkbox"/> Structural Engineering | <input type="checkbox"/> Forging | Steam Engineering Courses |
| | | <input type="checkbox"/> Surveying and Mapping | <input type="checkbox"/> Foundry Work | <input type="checkbox"/> Boilermaking |
| | | Communications Courses | <input type="checkbox"/> Heat Treatment of Metals | <input type="checkbox"/> Combustion Engineering |
| | | <input type="checkbox"/> Electronics | <input type="checkbox"/> Industrial Engineering | <input type="checkbox"/> Engine Running |
| | | <input type="checkbox"/> Practical Telephony | <input type="checkbox"/> Industrial Metallurgy | <input type="checkbox"/> Marine Engineering |
| | | <input type="checkbox"/> Radio General | <input type="checkbox"/> Machine Shop | <input type="checkbox"/> Steam Electric |
| | | <input type="checkbox"/> Radio Operating | <input type="checkbox"/> Machine Shop, Inspection | <input type="checkbox"/> Steam Engines |
| | | | <input type="checkbox"/> Home | Textile Courses |
| | | | <input type="checkbox"/> Address | <input type="checkbox"/> Cotton Manufacturing |

Name _____ Age _____
 Own _____ State _____ Present Position _____

Working Hours _____ A.M. to _____ P.M. Length of Service in World War II _____

Special tuition rates to members of the Armed Forces. Enrollment under the G.I. Bill of Rights approved for War II Veterans.
 Canadian residents send coupon to International Correspondence Schools Canadian, Ltd., Montreal, Canada.

THRILLING

WONDER

STORIES

Vol. XXX, No. 3

A THRILLING PUBLICATION

August, 1947



A Complete Bud Gregory Novelet

THE DEADLY DUST

By WILLIAM FITZGERALD

When Geiger counters all over America went into too-high gear, Dr. David Murfree knew that there was only one man to see—Bud Gregory, the hillbilly genius of the atom! 11

Two Other Complete Novelets

- ATOMIC!**.....Henry Kuttner 48
What nuclear war may do to the world we know is a closed book to mankind—but here's what coming eras may possibly bring!
- IN THE CARDS**.....George O. Smith 64
When Jim Forrest stole the block of zonium from Ellen Haynes he almost upset the entire system—but he had a compelling motive!

Short Stories

- NOON**.....Hudson Hastings 31
John Weston tries to save Serena from the Flame Blossom
- THE JET JOCKEYS**.....R. W. Stockhecker 39
An ace speedster throws away his chance at first place
- THE STROLLER**.....Margaret St. Clair 79
There were parasitic forces stowed away in the space freighter
- DONKEYS TO BALD PATE**.....Samuel Mines 84
Professor Weedlemeyer gives a pair of mules some human intelligence
- DARK DAWN**.....Keith Hammond 89
Dan Gresham joins forces with the Swimmers to save undersea civilization

Special Features

- THE READER SPEAKS**.....The Editor 6
- SCIENCE FICTION BOOK REVIEW**.....A New Department 112
- Cover Painting by Earle Bergey—Illustrating "Atomic!"

Published every other month by STANDARD MAGAZINES, INC., 10 East 40th Street, New York 16, N. Y. N. L. Pines, President. Copyright, 1947, by Standard Magazines, Inc. Subscription (12 issues), \$1.80, single copies, 15c. Foreign and Canadian postage extra. Entered as second-class matter May 21, 1936, at the Post Office at New York, N. Y., under the Act of March 3, 1879. 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.

PRINTED IN THE U. S. A.

Read Our Companion Science Fiction Magazine—STARTLING STORIES

They Never Knew It Was SO EASY To Play

Thousands Now Play Popular Songs
Who Didn't Know a Note of Music Before

You, too, can learn your favorite instrument at home, without a teacher, this quick, easy, money-saving way

THINK of the fun YOU are missing! The popularity, friendship, good times! Why? Because you think it's hard to learn music. You have an idea that it's a slow, tedious task, with lots of boring drills and exercises.

That's not the twentieth-century way! Surely you've heard the news! How people all over the world have learned to play by a method so simple a child can understand it—so fascinating that it's like playing a game. Imagine! You learn without a teacher—in your spare time at home—at a cost of only a few cents a day! You learn by the famous print-and-picture method—every position, every move before your eyes in big, clear illustrations. You CAN'T go wrong! And best of all, you start playing real tunes almost at once, from the very first lesson.

No needless, old-fashioned "scales" and exercises. No confused, perplexing study. You learn to play by playing. It's thrilling, exciting, inspiring! No wonder hundreds of thousands of people have taken up music this easy way. No wonder enthusiastic letters like those reproduced here pour in from all over the world.

Sound interesting? Well, just name the instrument you'd like to play and we'll prove you CAN! If interested, mail the coupon or write. Do it now!

U. S. SCHOOL OF MUSIC
2948 Brunswick Bldg.
New York 10, N. Y.



Music is the magic key to friendship, fun, romance. The person who can play a musical instrument is always sure of a welcome. Why not let music open up a new world for you. Thousands have discovered unexpected pleasure and profit in music, thanks to the unique method that makes it amazingly easy to learn.

**Send for FREE Booklet and
Print and Picture Sample**

See for yourself how this wonderful self-instruction method works. Sit down, in the privacy of your own home, with the interesting illustrated booklet, "How to Learn Music at Home." No salesman will call—decide for yourself whether you want to play this easy way.



Learned Quickly at Home. "I didn't dream I could actually learn to play without a teacher. Now when I play for people they hardly believe that I learned to play so well in so short a time." *H. C. S., Calif.



Invited to Parties. "Before I took your course I didn't know one note of music. Then three months later I started to play for dances. I've been invited to many parties. The course is easy and interesting." *R. C. M., Vancouver, B. C.

Well Worth Money. "The course is self-explanatory. When I started there is little one need to learn. It is well worth the money and I fully believe you have the finest course on the market today." *R. E. G., Clarksburg, W. Va.

Surprised Friends. "People who hear me play don't understand how I do it. They ask if I haven't had lessons from a teacher. To their surprise they find I haven't. I'm glad to be a student of your school." *M. H., Athol, Kans.

U. S. SCHOOL OF MUSIC
2948 Brunswick Bldg., New York 10, N. Y.

I am interested in music study, particularly in the instrument indicated below. Please send me your free booklet, "How to Learn Music at Home" and the free Print & Picture Sample.

Piano	Reed Organ	Modern
Guitar	Tenor Banjo	Elementary
Hawaiian Guitar	Ukulele	Harmony
Violin	Clarinet	Mandolin
Piano Accordion	Trombone	Practical Finger
Saxophone	Flute	Control
Trumpet, Cornet	Piccolo	

Name..... (PLEASE PRINT) Have You This Instr. ?.....

Address.....

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

Notes: If you are under 18 yrs. of age, parent must sign coupon.

*Actual pupils' names on request. Pictures by Professional models

SAVE 20—Stick coupon on penny postcard.



A DEPARTMENT FOR SCIENCE FICTION FANS

ENTRIES in the amateur magazine contest announced in our last issue are swarming in. It begins to look as if we had really started something that will not only supply TWS with a brilliant new department but will give encouragement, long deserved encouragement, to the scores of industrious and creative scientification faneditors who have labored so long and so hard for an extremely limited if devoted public.

In order to start off with a more or less cosmic bang, we are therefore withholding announcements of the first winner or winners until our next issue, when the first victors will see their prize products in print. We want the best from the widest possible field and are aware of the fact that some of the editors competing wish sufficient time to select their own favorites. So be it.

The Idea of the Contest

For those who missed the earlier announcement, the idea of the contest is that each amateur editor or publisher select his favorite story, article, letter or poem published before or during 1946 and submit it or them to us as contest entries.

Beginning with the February issue (our first for 1948) we are asking entrants to submit their pick of the same material published this year—and from then on the contest will stick to work published in the preceding year only.

The requirements follow:

(1.) Each submission shall be submitted in printed form in the amateur magazine in which it was originally published.

(2.) Each submission shall be accompanied by a letter from the editor or publisher submitting, giving us something of the story behind his magazine as well as similar information about his submission and its author.

(3.) The submission of a work shall constitute permission for THRILLING WONDER STORIES to print or not as we see fit and to pay for, if printed, as we see fit.

Once again, that's it. Keep them coming. You've made a fine start!

The current appearance of numerous fantastic and science fiction stories in the so-called "slick" magazines constitute a tribute to the increased popularity of stf. Some of our long-time best authors, are now finding themselves sought after by publications which pay almost in Hollywood figures.

This is a fine thing—not only because they are receiving greater recognition and reward, but because their success will turn more talented writers to scientification and will encourage all those now writing to produce work of higher quality. No one is going to lose!

However, as well-known author Carter Sprague, who has penned many a yarn in many a field for many a year, points out, this development has produced some curious results, not all of which are favorable to progress in scientification—at least not immediately. Says Mr. Sprague:

Dear Editor: It is good to see stf on its way up. You and your gang are moving in exalted company these days. The success of Robert Heinlein seems to have been a sort of bell-wether to the entire field.

However, I was amused at a couple of recent pseudo-scientific appearances in a pair of our biggest national magazines. It would seem that the editors of these magazines, having discovered a new toy, seem fondly to believe that anything they run along stf lines must therefore be new. And except for the appearance of a tried-and-proven stf author like Heinlein, the authors to whom they have given pseudo-scientific assignments suffer from the same illusion.

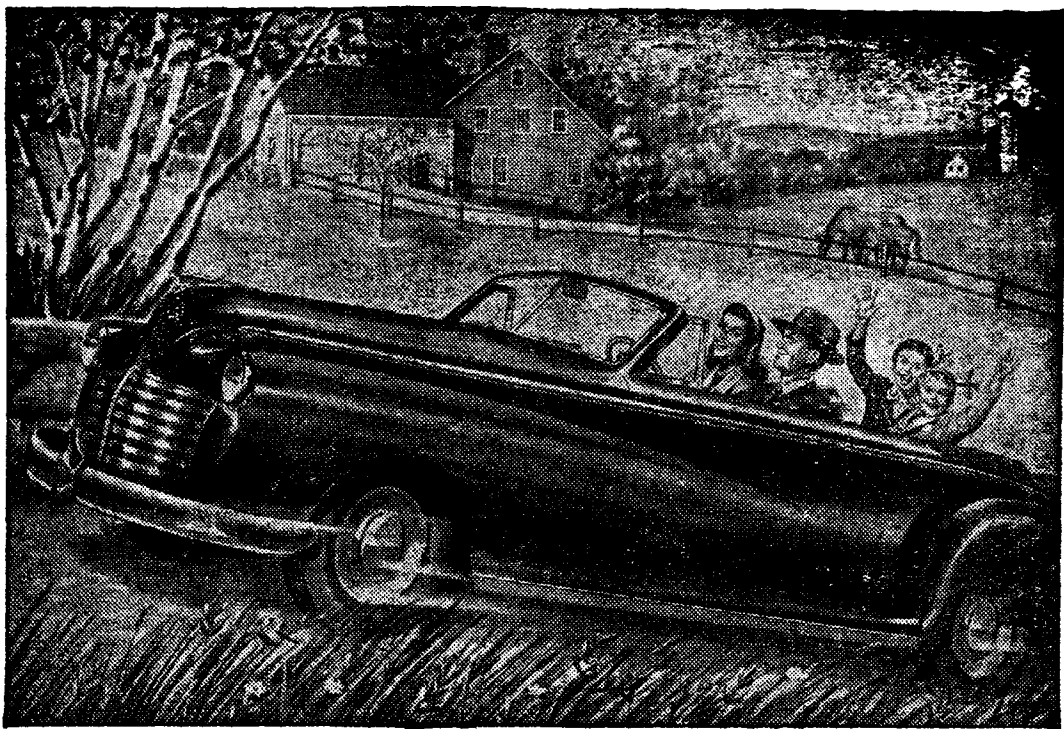
One of the stories mentioned was a two-parter by a highly distinguished "name" writer, who seemed to feel that he had something just out of the incubator in describing a world blasted to bits by atom bombs and a New York City reverted to jungle. Disregarding the excellence of the author's craftsmanship, it seems to me that this theme is one from which any veteran reader of stf would turn away quickly with a loud yawn. It can't have been done in one form or another more than a thousand times already.

The other, a short story by another noted writer, proposed that supersonic flight in an unstated direction would take the pilot rapidly backward in time toward pulling infancy. The pilot in question realized this fact just before reaching a time when his plane must necessarily vanish, leaving him stranded in space and time without either paddle or parachute. So he turned around and regained his years by going the other way.

I have read many a time travel story in stf magazines, but surely never one as silly as this. Shades of George O. Smith—how come he still had on his high-altitude outfit if his plane could turn up missing? He would have been baref than a Bergey BEM!

It is our belief that at least one editor on every magazine planning to publish stf with any regularity should do some back-issue reading among the maga-

(Continued on page 8)



This car is running with an "EMPTY" gas tank!

EVEN AFTER the gas gauge says "empty" a modern car can keep going for a good many miles. Here's why.

Automobile manufacturers know human nature. They figure that, sooner or later, we'll get careless, or misjudge how far we have to go. So the gas gauge is set to show "empty," while there are still a couple of gallons left in the tank.

This reserve supply is a swell idea that has kept many a family from getting stuck.

It's an even better idea for a family's budget!

A *reserve supply of dollars* is a lifesaver in case of financial emergency. It will keep your family going if sudden illness strikes, or unexpected expenses show up.

And one of the easiest ways to build just such a cash reserve is *buying U. S. Savings Bonds on the Payroll Savings Plan!*

Millions of Americans have discovered that *automatic* Bond buying is the quickest, surest way of saving money. What's more, the money you save in Bonds buckles right down and starts *making more money*—in just 10 years you get back \$100 for every \$75 you put in today.

So keep on buying Bonds on the Payroll Plan. Buy all the extra Bonds you can, at any bank or post office. And remember, you're helping your country as well as yourself—for every Bond you buy plays a part in keeping the U. S. strong and economically sound!

Save the easy way..buy your bonds through payroll savings

Contributed by this magazine in co-operation
with the Magazine Publishers of America as a public service.



THE READER SPEAKS

(Continued from page 6)

zines so long devoted exclusively to the field. As it is, the boys and their pet authors simply aren't hep.

Thank you, Mr. Sprague, for the fine white heat of your indignation. We must confess that we agree with you on the merits of the two stories mentioned. However, we are all for more stf everywhere as a stimulus to imaginative thought and a perspective-giving escape from life as she is lived.

Anyway, it is probably only the price of fame for stf. Everybody or everything else that ever woke up suddenly famous has suffered the same fate.

OUR NEXT ISSUE

● OCTOBER looks like a big month for football and TWS. Not only will the first fanzine winners be announced and published, but the story line-up contains all the elements of thought-invoking and vertebrae-chilling entertainment as well as an element of controversy.

Leading the issue is a novel by the brilliant James MacCreigh, DONOVAN HAD A DREAM. In fascinatingly realistic fashion, author MacCreigh propounds a tale of life, love and intrigue upon a Venus long-since settled by Earthmen—and Earthwomen. In fact, it is the women who run things and run them with velvet hands (not a cosmetic ad) through which the steel alloy lining is all too evident.

Yes, matriarchies and Venusian life are old studies in stf—but we have never read a story in which they were handled as MacCreigh has handled them here. The sense of urgency, of high peril, of even higher adventure are all present—but presented with a fine feeling for drama and a wealth of detail and mature thought which lift this far out of the space opera class. We're proud of the yarn.

The first of the two novelets that flank DONOVAN is bound to stir up comment if only by its unexpectedness. It is THE DARKER DRINK, by Leslie Charteris. Yes, the Saint has finally crashed stf in one of the most fascinating studies of pathological factors on the loose that has ever stemmed from typewriter—and the cleverness of Mr. Charteris' fingers on those etalon shrdlu keys has long been sung by critics and readers alike the world over.

The adventures of the renowned Simon Templar in his California mountain cabin and, later in Los Angeles, actually defy summarization here. Suffice it to say that they are utterly out of this world. This is an unique achievement in the fields of fantasy and stf.

AUTHENTIC WESTERN
SADDLE RING
 FOR MEN WOMEN OR CHILDREN
 PURE STERLING SILVER
 Only 49¢
 POSTPAID We Pay Tax
 First time at anywhere near this low price! Authentic replica of romantic western saddle. Handsomely formed from solid Sterling Silver by expert silver craftsmen. Massive style for men, dainty style for women and children. A gift of distinction. A pleasure to wear. Sent on approval.
SEND NO MONEY! Just clip this ad and mail with your name and address. Pay postman only \$4.95 plus few cents postage on arrival; or send cash and we pay postage. Wear this sensational ring for 10 days. If not delighted, return for full refund. Specify for MAN, WOMAN or CHILD and RING SIZE. Use cut-out band to determine size.

10 DAY TRIAL ORDER COUPON

ARIZONA CRAFTSMEN Room 6066
 1904 FARNHAM ST. OMAHA 2, NEBRASKA

SEND Sterling Saddle Ring as I have indicated below.
 C.O.D. Cash Enclosed, Send Postpaid

NAME _____
 ADDRESS _____
 CITY _____ STATE _____
 Men's Women's Child's Ring Size _____

STAMMER?

This new 128-page book, "Stammering, Its Cause and Correction," describes the Bogue Unit Method for scientific correction of stammering and stuttering — successful for 46 years. Free — no obligation.

Benjamin N. Bogue, Dept. 4281, Circle Tower, Indianapolis 4, Ind.



MECHANICS • HOME STUDY

- Step up your own skill with facts & figures of your trade.
- Audel's Mechanics Guides contain Practical Inside Trade Information in handy form. Fully illustrated. Easy to Understand. Highly Endorsed. Check book you want for 7 days' Free Examination. Send no Money. Nothing to pay postman.
- Carpentry \$6 • Auto \$4 • Oil Burners \$1
- Sheet Metal \$1 • Welding \$1 • Refrigeration \$4
- Plumbing \$6 • Masonry \$6 • Painting \$2 • Radio \$4
- Electricity \$4 • Mathematics \$2 • Steam Engineers \$4
- Machinist \$4 • Blueprint \$2 • Diesel \$2 • Drawing \$2.
- If satisfied you pay only \$1 a month until price is paid.

AUDEL, Publishers, 49 W. 23 St., New York 10, N. Y.

FOR ITCHING, BURNING, IRRITATION OF ECZEMA PSORIASIS Athlete's Foot

Amazing Wonder Cream—14 DAYS FREE TRIAL
 Do tiny water blisters form? Do dry scaly patches form? Does skin crack, thicken, peel, or swell? Does itching, burning, redness become intense?

SEND NO MONEY—UNLESS 100% SATISFIED

MAIL COUPON TODAY
 WILEY PRODUCTS—Dept. T6-8
 4300 Drexel Blvd., Chicago 15, Ill.
 Send postpaid full size jar Wiley's Wonderful Skin Cream for 14 days Free Trial. Will use it faithfully. If not satisfied will notify you within 20 days after receiving jar; otherwise will keep jar and pay for it.
 NAME _____ AGE _____
 ADDRESS _____
 CITY _____ STATE _____

Finally, we have **JERRY IS A MAN**, a novelet by Robert A. Heinlein which deals in utterly original, subtly humorous and in rarely sophisticated fashion with the battle of well-intentioned Mrs. Bronson van Vogel against a society which, having mastered genetics, produces living creatures strictly for use.

Uproarious yet sharply mindful of human failings, **JERRY IS A MAN** is a story whose match has seldom been conceived, much less written. In its gently drawn distortion of people as they are, it constitutes a triumph of satiric writing.

For illustration hounds—those eerie creatures who seem forever to be buying at our editorial heels, the first two above have been empictured by Virgil Finlay, the last by Stevens. Need we say more?

And the short story line-up is impressive, containing tales by Manly Wade Wellman, Henry Kuttner and Margaret St. Clair. Oh, yes, and your Ed will be on hand with his usual routine of songs and dances.

Better get aboard this one. October it is!

LETTERS FROM READERS

SOMEWHERE along the line the printer seems to have caught up with us—an odd state of affairs after the reverse tribulations of recent years. At any rate, we are including in this department letters anent both the June and April issues. Judging by the sweetness-and-light tenor of most of them, our recent issues seem to have been meeting with approval unprecedented in TWS annals.

But there are still enough squawks to keep us hopping and the number of conundrums, esoteric puzzles et cetera has been rising like the temperature of a malaria victim afflicted with blondes. Any that we can't answer (any, he says!) we shall gladly unleash on you who read this column.

But first, that rarity, a letter from an author (It doesn't seem to be a rarity this month, chum—you've got two of them).

SHIP'S CHANDLER

by A. Bertram Chandler

Dear Ed.: When first my spies informed me of the impending clean-up I said—not too regretfully—"Cor lumme, they've been and shoved the poor old basket out through the airlock without a spacesuit . . ."

Joking apart—it has made one helluva difference to the magazine. As a fan one could enjoy some of the correspondence, especially when one's own pet likes or dislikes came in for a first class mauling. But it meant that TWS was the kind of publication to be kept in a locked drawer and not, like some of your contemporaries, lent to shipmates short of reading matter as being representative of the best in science fiction.

(Continued on page 97)



AUTO BOOKS ON APPROVAL



SEND NO MONEY. Just mail the coupon for a complete set of Six Big Auto Books. 20th Edition. Whether you are a mechanic or helper, expert or apprentice, auto owner or driver, take immediate advantage of this **FREE EXAMINATION OFFER.**

MAKE GOOD MONEY NOW HOLD A PERMANENT JOB
America wants its automobiles kept in good repair. Men with "know how" are in demand, at big pay. These books will help you get and hold an important job, or give you a chance to go into business for yourself now or later. Any man who half tries to improve himself can learn auto servicing and repairing by this quick reference method. Use the **JIFFY INDEX** to find easily understood answer to any auto problem. These wonder books prepared by eleven of America's great automobile engineers. Many hundreds of valuable illustrations. Send the coupon **TODAY.**

CAN YOU FIX IT?

These wonder books tell step by step **HOW** to make difficult repairs and adjustments. How to keep a car at maximum efficiency, including latest improvement in car design and operation. Engine troubles and how to correct them well covered.

6 BIG VOLUMES
2800 pages, 2000 illustrations, wiring diagrams, etc. including Diesel engines. Beautiful, modernistic, washable cloth binding.

[A year's consulting privileges with our engineers now given with these books without extra charge.]
Vocational Publishers Since 1898

AMERICAN TECHNICAL SOCIETY Dept. AC49
Drexel Ave. at 58th St., Chicago 37, Ill.
I would like to examine your Six-Volume Set of Auto Books. I will pay the delivery charges only, but if I choose I may return them express collect. If after 10 days' use I prefer to keep them, I will send you \$2 and pay the balance at the rate of only \$3 a month until \$24.80 has been paid. Please include consulting service as offered above.

Name
Address
City State
Please attach letter stating age, occupation, employer's name and address and name and address of at least one business man as reference. Men in service, also please give home address.

ACCOUNTANT

BECOME AN EXPERT

Executive Accountants and C. P. A.'s earn \$2,000 to \$10,000 a year. Thousands of firms need them. We train you thoroughly at home in spare time for C. P. A. examinations or executive accounting positions. Previous experience unnecessary. Fernon on our own business man as staff of C. P. A.'s. Placement counsel and help. Write for free book, "Accountancy, the Profession That Pays."

LASALLE Extension University, 417 So. Dearborn St.
A Correspondence Institution Dept. 8329-H Chicago 5, Ill.

INVENTORS

Learn how to protect your invention. Secure "Patent Guide" together with "Record of Invention" form—without obligation.

CLARENCE A. O'BRIEN & HARVEY JACOBSON
Registered Patent Attorneys

78-G District National Bldg. Washington 8, D. C.

WATCH & CLOCK REPAIRING
LEARN AT HOME IN YOUR SPARE TIME! . . . Prepare for a happy future, with security—and qualify for a good job NOW. A fascinating and thorough self-instruction training in American and Swiss watches and clocks. Special section on arm clock repairs. Fast-growing field. Satisfaction is guaranteed. Success-Catalog Free. **NELSON CO., 1139 S. Wabash, Dept. 06, Chicago 6, Ill.**

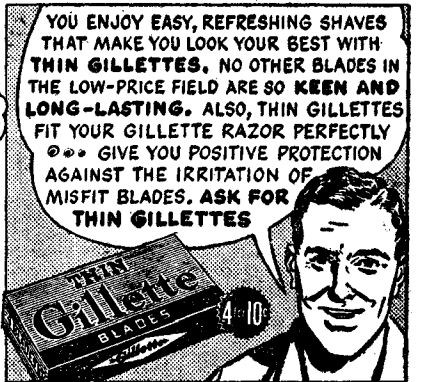
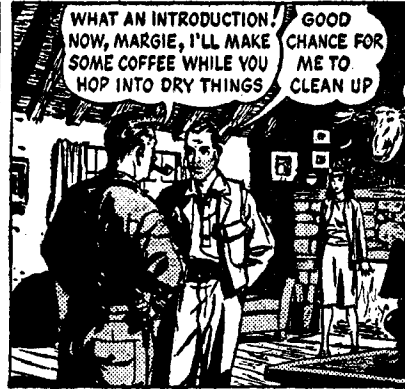
AMAZING! SELLS LIKE LIGHTNING!

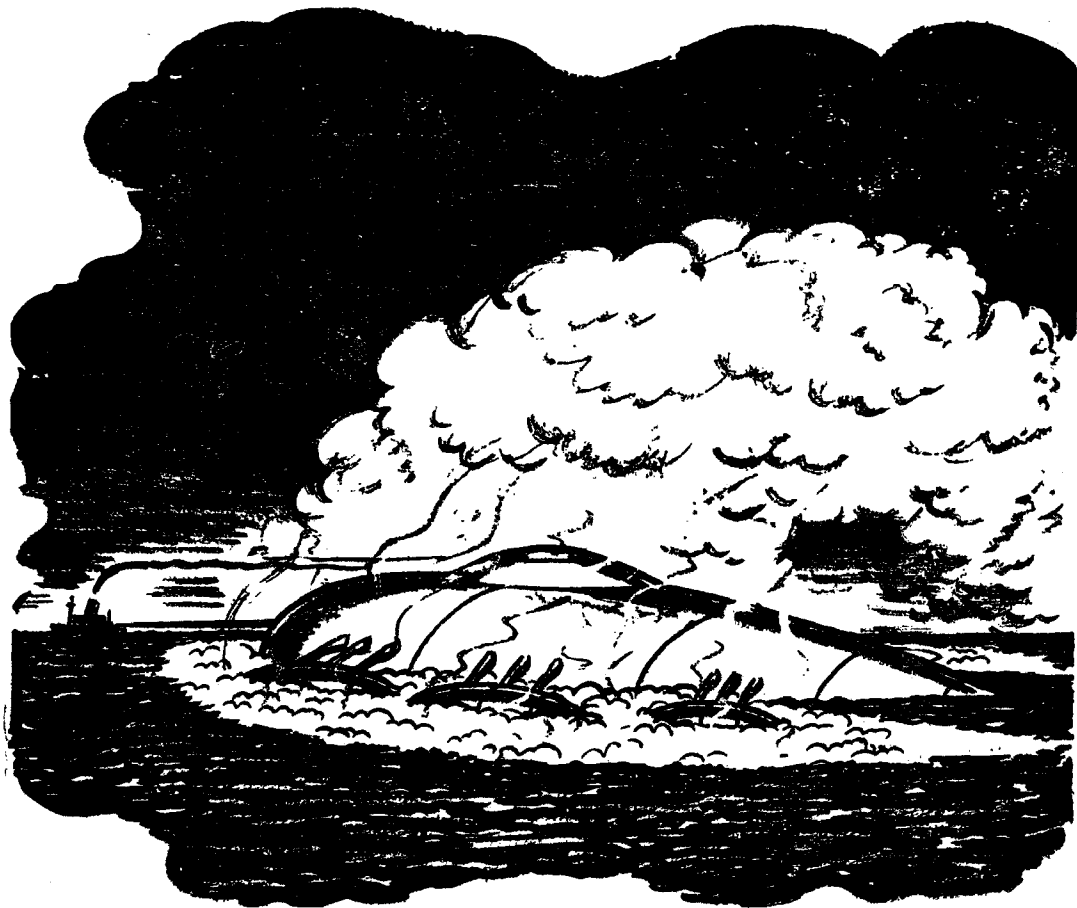
NEW ZIPPER SHOE

ZIPPS ON... ZIPPS OFF

Here's your chance to start a fine, solid, profitable business right among your friends and neighbors. Tie up with the **LEADER** in the direct-to-wearer shoe industry, established 42 years. Just rush post-card NOW for **FREE SAMPLE OUTFIT**, Free 10-Second Air Cushion Demonstrator, Free Automatic Selling Plan. Learn how you can start making money very **FIRST DAY** with over 200 fast-selling Feature Style and Comfort Shoes. **MASON SHOE MFG. CO., Dept. TG-78, Chippewa Falls, Wis.**

TOM FORGOT "THE ONE THAT GOT AWAY" WHEN . . .





An oily liquid came out of the torpedo-shaped object, bubbled to the surface and spread out

THE DEADLY DUST

By WILLIAM FITZGERALD

When Geiger counters all over America went into too-high gear, Dr. David Murfree knew that there was only one man to see—Bud Gregory, the hillbilly genius of the atom!

CHAPTER I

Where Is Bud Gregory?

A STURDY, small fishing-boat wallowed and rolled and heaved and pitched in the huge slow swells of mid-Pacific. It looked very much like any

other fishing-boat and remarkably like those tuna-boats that put out from the West Coast of the United States and pursue their prey for as many thousands of miles as may be necessary.

It was just a little over a hundred feet long and was powered obviously by a Diesel engine. There was just one thing odd about

A COMPLETE BUD GREGORY NOVELET

the boat and one oddity about its crew and one about the object it towed and one about its wake.

The odd thing about the boat was that something remarkably like a radar antenna was fitted atop its pilot-house. The oddity about its crew was that every man wore heavy protective clothing of a sort usually found only among workers about atomic piles.

The oddity about the object it towed was that aside from the supporting pontoons that kept it afloat it was made of lead. It was a torpedo-shaped object some forty feet long and no more than eight or ten feet in diameter, kept from sinking by sheet-metal floats on either side.

The oddity of the wake was that it was quite clear for a few miles and then—miles and miles behind—dead fish lay on the water. It was possible to back-track the tuna-boat for a long, long way by dead fish lying on the surface. Of course, perhaps fifty miles astern the dead fish had been scattered by the waves and the trail had been thinned out and was not so clear.

But the fishy corpses made a trail for a hundred miles beyond that if you looked for them. Curiously, the trail was equally dense along its whole length, as if a certain poison-ousness only had been towed through the water and did not spread afterward.

There was an oddity in the behavior, too, of the small craft after a while. The radar-antenna turned and flickered here and there, restlessly. It searched the horizon exhaustively. Then, suddenly, an oily liquid came out of the torpedo-shaped leaden object. It bubbled to the surface and spread out. It evaporated very quickly, though. The vapor was blown to the eastward by the wind.

The seeming tuna-boat forged ahead sturdily, towing that odd object, which now gushed out a volatile liquid which evaporated quickly and whose fumes were blown away. It went on for miles and miles and miles, its radar-antenna flickering nervously about the horizon while the transient film of oily stuff trailed behind it.

And there was another peculiarity. The trail of dead fish grew much thicker after the liquid spread out to dry up and blow away to eastward. Instead of forty or fifty fish per mile there were hundreds. In one place, where a school of some finny sort had swum beneath the temporary layer of oil, the ocean

was almost carpeted with scaly, belly-up corpses. . . .

On August 8th the background count of all the standard Geiger-Miller tubes on the Pacific Coast, from Oregon to Southern California, went up from 1-3 to 3-5 per minute per square centimeter of tube surface.

On the same day Bud Gregory found a new home for his family. And Bud Gregory was—though the fact made him extremely unhappy—the most important man in the United States, perhaps the most important man in the world. He was in hiding because of it.

He was so much more than a mere genius that there is no possible way to describe him, and therefore he drove furtively by back roads up through Northern California and across Oregon and finally found a home for his family fronting on one of the minor inlets opening off Puget Sound.

The house was an abandoned shack, built of shakes—slabs cut off logs to square them for a sawmill—and it was in the last stages of dilapidation. But Bud Gregory viewed it with vast satisfaction.

SO DID his family. His tow-headed children regarded the brush that went back to the hills with lively anticipation. It was cut-over land with only a seed-tree standing here and there. The older boys inspected the water in view with enthusiasm.

Bud Gregory's wife noted that the stove, left behind when the shack was abandoned, could be patched with flattened tin cans or sheet-iron to serve admirably, and that there was a spring only a hundred yards from the house. She learned that there was a very small town only four or five miles away. She was content.

So Bud Gregory's family unloaded pots, pans, bedding, two hound dogs, certain folding cots and assorted gunnysacks of provisions and canned goods from the car. They moved in. There were berries and wood-greens for the girls to pick nearby, there were rabbits to snare and fish to catch for the boys and nobody was likely to try to make anybody go to school. Bud Gregory's family was happy.

As the sun went down, with the ancient and decrepit jalopy standing forlornly beside the really quite unspeakable shack, Bud Gregory sat comfortably on the sagging doorstep and leaned back against the rotting side-wall. He reflected complacently



Water splashed from the protective baffle-plate at the gadget's base—quantities of water

that nobody was likely to bother him here for a long time to come. He could sit in the sun and not be bothered.

In a very real sense he was the greatest physicist yet known on earth. He had the greatest command over subatomic particles of any human being so far born. His profession was the repair of hopelessly disarranged automobiles but his occupation, his avocation and his only desire was simply to sit and do nothing. Sometimes, though, he liked to drink a little beer.

On August 9th, the background-count of standard Geiger-Miller tubes was up to 3-5 per minute per square centimeter as far east as St. Louis. On the Coast it was up to 5-7. On August 10th, the count was 3-5 in the Atlantic States, 5-7 in the center of the country and 7-9 on the Pacific Coast. . . .

There was another small fishing-boat ploughing its way through the long slow mid-Pacific swells, towing an odd object which was supported by floats. There had been another one before it and another before that.

Like its fellows which had made these strange patrols, towing lead-sheathed torpedo-shaped objects, this fishing-boat also never seemed to fish—Not even when there were very plain evidences of tuna in profitable quantities all about.

The boat forged ahead, its radar flickering about the horizon. Suddenly the movement of the radar-antenna ceased. It remained fixed in one position and one position only. Then, as suddenly, men ran about the boat's deck.

They hastily assembled machine-guns at the stern. There were sharp, tearing noises above the droning hum of the Diesel engine. Tiny puffs of smoke were torn away from the muzzles of the machine-guns by the wind which blew to the east.

Bullets ripped and tore the sheet-steel floats. Great gashes appeared in the plating. Water poured into the supporting pontoons. A protective-suit-clad sailor swung an axe and the tow-rope parted. The lead object settled and sank swiftly.

Seconds after it was out of sight the only crew-members who appeared on deck wore commonplace working clothes. When a four-motored transpacific flying clipper droned out of the mistiness of the horizon there was nothing out of the ordinary in view. The radar-antenna was invisible. It had been unshipped. And of course the thing that had been towed was far, far below the surface. . . .

The Geiger-Miller tube background-count did not rise on August 11th or 12th but on the 13th—when it was 7-9 in the Eastern and Central states—it made another jump. It went up to 8-10 on the Coast. The matter began to look serious.

Bud Gregory and his family, however, paid no heed. The older boys had explored their immediate surroundings very happily. The family dined on woodcock—out of season—rabbits, fish and corn bread. The oldest boy of all, aged fourteen, trudged all the way to the nearby small town and reported that there was a movie theatre there which showed films twice a week.

Beer was to be had. There were two stores and a post office and a consolidated school, a small bowling-alley, a sawmill and a hospital out of all proportion to the town itself. He was not impressed. He went fishing.

IN AUGUST 14th the background-count on the West Coast was 9-11. On the 15th it was 10-12 and on the 16th it was 12-15. In the rest of the country the count climbed steadily. In Washington, D. C., standard counters clicked at the 10-12 rate and Doctor David Murfree became convinced that something was very, very wrong.

The background count for standardized Geiger-Miller tubes is a measure of the normal everyday radioactivity of the earth as a whole. When a tube of given dimensions, with given pressure and given voltage applied, indicates that stray subatomic particles have passed through it at the rate of from one to three per minute for each square centimeter of its surface, the cosmos is normal.

But when the rate goes up over the entire United States, so that one has to assume that the radioactivity of the whole nation's surface has multiplied itself at least four times, it is upsetting.

Doctor David Murfree's title was a science doctorate. Because of the raised background count he went to his superiors in Washington and asked for leave. He had a hunch that he had better find Bud Gregory and ask some questions about the matter.

It was not a pleasant interview. For a Civil Service employee to ask some special concession from his superiors is always unpleasant and Murfree was not in the good graces of his bosses. By his rating he drew a salary of forty-seven hundred dollars a year and by his seniority he could not be fired without formal charges and a hearing. But his su-

periors disapproved of him.

When an atomic pile started up of itself in the Great Smokies, Murfree to be sure, had managed to get it stopped on his own initiative and had presented to the United States the greatest known store of artificial radioactive material on earth. But Bud Gregory, who was responsible for that gigantic pile, had got away into the anonymity of tramp motordom.*

And again when there was good prospect of an atomic war, with the United States on the receiving end of a well-organized attack, Murfree had managed to find Bud Gregory and, according to his own report, had prevented that attack, too. But again Bud Gregory had slipped away and Murfree could bring back nothing but a smashed and inoperative device he declared was responsible for the safety of the United States.**

True, three dead men were found where Murfree had said they would be and they had been killed by bullets from guns they held in their hands and the bullets had gone in backward. Which made Murfree's otherwise improbable story rather plausible.

But his immediate superior did not approve of him because he had brought back neither Bud Gregory nor a painstaking report with math and diagrams which could be issued as essentially the product of the organizing genius of the administrative officers of the Bureau.

So, on August 17th, while Bud Gregory sat peacefully in the sunshine and his children picked berries, Dr. David Murfree sat in the office of his section's administrative officer and argued.

"But there's nothing else to do! I have to take some leave!"

The administrative officer was displeased.

"I don't think Gregory's responsible," explained Murfree patiently. "He knows better, now. All he wants is to be left alone to loaf and drink beer. He won't do anything to draw attention to himself—more's the shame and pity—and anything that would increase basic radioactivity would decidedly be on the show-off side. But he's the only man who could possibly solve the problem!"

The administrative officer scowled darkly.

"It isn't the whole earth, remember," said Murfree as patiently as before. "Only the

United States. That means something quite preposterous. It's not dangerous yet but it isn't right! I've got to take some leave to see if I can find Gregory and get an explanation!"

The administrative officer was no scientist. He pointed out that Murfree was asking for leave when everyone else in the Bureau wanted his vacation. If Murfree left his duty it would be considered that he had resigned.

Murfree clamped his jaw.

"Oh, the deuce!" he said angrily. "In that case I've resigned. I'm going! I've got to!"

THE small fleet of seeming tuna-boats had developed a regular routine. One or more lay at a dock where a shed jutted out over the water and could easily hide two or three lead-sheathed objects to be towed. At least one ploughed sturdily across the ocean, its radar flickering incessantly in every direction, to detect and warn of any other ship or any aircraft which might presently come into sight.

If the radar reported another ship—however far away—the tuna-boat and its tow changed course to avoid a meeting. If a meeting could not be avoided the tow could be sunk and of course on the tuna-boat there wasn't anything peculiar which couldn't be thrown overboard if it became necessary to prove its utter innocence.

The island which was the small fleet's base was small itself and very seldom visited. If anybody did come its entire population of perhaps seventy souls was united. Personnel had been chosen and trained to distract the attention of any possible visitor from the things that were the real background of the ships' activities.

It should not be difficult. After all, atomic piles are not so large and they can be built and hidden underground and the necessary shielding can be made to look like perfectly natural parts of an island landscape.

The fishing-boats went about their routine. They were very busy. But they didn't catch any fish. They didn't try. . . .

On August 22nd the acceptance of Murfree's unwritten resignation came through. He scowled at the slip and then cleaned out his desk and went home. On that day the background-count in the East was 25-28. On the Pacific Coast it was 32-35.

This meant that in two weeks the radioactivity of the surface-soil of the United States had multiplied itself ten times. If it

*See "THE GREGORY CIRCLE," *Thrilling Wonder Stories*, April, 1947.

**See "THE BOOMERANG FIELD," *Thrilling Wonder Stories*, June, 1947.

doubled itself just six times more there wouldn't be any United States. There might not be any world.

But out in the state of Washington, looking out over Puget Sound from his happily somnolent seat before the shack of moldering shakes, Bud Gregory decided that he would like to have some beer.

He counted up his money and sent his oldest boy to the town four miles away to bring back half a dozen bottles. For speed he let the fourteen-year-old boy use the antique automobile in which the family had wandered across the continent.

The boy cranked up the jalopy and drove away. It was very fortunate that he did so. Murfree heard about it and therefore was able to locate Bud Gregory.

CHAPTER II

"What's in It for Me?"

MURFREE had a very bad conscience. Now, when his wife had set her heart upon a vacation at the seashore with their little daughter—Washington is an oven in the summer—he had joined the ranks of the unemployed. But Murfree knew that he had to hunt for Bud Gregory. He had to!

"Somebody's got to do it," he told his wife defensively. "And after all, I'm the only person he'll work with."

His wife waited.

"It's lunatic," said Murfree, "but what can I do? The whole country is getting more radioactive. The normal count has gone up ten times! It goes up in waves which start on the Pacific Coast and move east. There's no rise in Europe, Asia, South America or anywhere else. It isn't dangerous yet but it's heading that way. Somebody's got to find out about it!"

"Why must it be you?" asked his wife.

"Because nobody else will!" he told her vexedly. "There is a certain amount of radiation which is normal. There is a certain amount which is safe. The amount all over the United States is away above normal. It's still safe but it's heading for the point where it won't be!"

"Well?" his wife said.

"A certain amount more," said Murfree, "and there'll be a terrific increase in the

number of abnormal babies. Freaks, mutations, monsters. A little beyond that, there'll be no babies! The rest of the living world would follow.

"A little more and plants will begin to throw sports. More yet and plants will become sterile. Seeds will cease to grow. A little more radiation than that and we'll all tend to develop cancer, and still more and we'll begin to run fevers and die of radiation-burns."

"And you're the only person who sees it," said his wife bitterly. "So you have to spend your money trying to find this Gregory and bribe him to do something!"

"But," said Murfree again, "nobody else will!"

Which was true. Twice before he'd spent his own savings for the safety of his family while all other families got their safety free. His conscience bothered him. But there wasn't anything else to do. Rather guiltily he called a friend who made microchemical analyses for the F.B.I.

He asked if he could be notified if any events took place of the sort—he described it specifically—which would mean Bud Gregory was involved. Then he doggedly made ready to take his family to the seashore. Employed or not, his daughter needed fresh air and sunshine and the sea after a year in Washington.

Two days later he had them settled at the beach. He'd packed up the one personally-owned souvenir of his encounters with Bud Gregory. He went to the largest privately-owned power-generating station in the United States. He demonstrated the gadget. He left it installed. Then he called back to Washington on long distance.

He had a certain amount of money by this time—a fee for the experimental use of Bud Gregory's gadget—and within limits he could travel. There was news. His friend in the F.B.I. told him of a happening which sounded as if Bud Gregory was involved. So Murfree headed for the Pacific Coast by air.

A VERY decrepit vessel cast anchor off the small island of the tuna-boats. It made cryptic signals and the population of the island came rejoicing to the dock to greet its crew. Of course the people of the island did not use radios for communication. Radio messages can be intercepted and, if sent in code, arouse curiosity.

The decrepit vessel, therefore, brought

news. It was good. The news consisted of background-count measurements made in different cities of the United States over some weeks past. The men who had made the measurements were passengers on the ship which brought them.

They were highly elated. They were taken to see the atomic piles which had produced the measurements. They bowed profoundly before the atomic engines which silently produced death for a nation.

And that night there was celebration on the island. But the tuna-boat due to leave went out on schedule despite the festivities. It towed a torpedo-shaped lead object behind it. . . .

On the 29th of August the background-count of standard Geiger-Miller tubes on the West Coast was 56-58 and still going up. The radioactivity-constant of the United States had risen to something like twenty-five times normal. It showed no tendency to stop.

Bud Gregory's boy was in trouble. The event itself was not important but it enabled Murfree to find Bud Gregory. The happening occurred within half an hour after Bud sent his son to town for some beer.

The fourteen-year old boy chuffed away from the shack into which his family had moved. The car in which Bud Gregory had taken his tribe across the continent was an ancient and dilapidated and rattletrap. By any normal standard it should have wheezed its last mile years before.

It had a cloth top, a cracked windshield and, when it was running exclusively on its motor, it made noises like a broken-down coffee grinder working on a protesting cat. It should have groaned at any grade and balked at any really perceptible incline. Its absolute maximum of speed should have been twenty miles an hour downhill.

But Bud Gregory was something very much more than a genius. He had made a gadget for his car. It was a radio tube and a coil or two, the windings being made in a fashion nobody else could understand and Bud Gregory could not explain. When the gadget was turned on and attached to any bit of metal things happened.

Normally the molecules of—say—the metal of any automobile-engine block move in all directions in a strictly random fashion. When Bud Gregory's gadget operated, the



The globe of vaporized metal soared skyward in the manner of a balloon

molecules of the same automobile-block moved in the same direction—ahead.

If the motor wasn't running the metal cooled down as the heat-energy it contained was turned into kinetic energy. If it was kept running the burning fuel in its cylinders kept it from going so far below zero that it would condense liquid air upon itself.

The gadget was still attached to the motor of the ancient car. It had helped pull the car across the continent and was solely responsible for the fact that it had pulled the Rockies. Now it was turned off. The small boy turned it on. The car began to ride smoothly and easily with seemingly infinite power.

It came out of the narrow woods-road upon a main highway. The fourteen-year-old boy turned up the gadget. The ancient jalopy breezed up to sixty miles an hour—seventy—eighty. . . .

A horn blared its astonishment as a motor-cycle-cop flashed past, going in the opposite direction. Bud Gregory's son heard the cop's brakes squeal. He was going to turn around and come in pursuit.

The flapping, squeaking, preposterous flivver hit one hundred and twenty miles an hour as the scared boy lit out. He rounded a curve. The small town lay before him. In panicky haste, he turned the knob to reverse the molecular drive of the four-wheeled wreck he drove.

In fifty yards it dropped from a hundred and twenty miles to ten. He snapped off the drive and limped into town on three cylinders. He parked the car in an inconspicuous place and went and got the beer.

He lingered uneasily, afraid to go back until the motor-cop should have vanished. The motor-cop came into town, swearing. The boy saw him ask questions. He moved out of sight. The boy got into the car and stowed the beer. Then he saw the cop heading for his car where it was parked. The cop looked purposeful.

The small boy cringed. He shared his father's terror of the Law. When the motor-cop was ten yards away, Bud Gregory's son reacted in panic. He flipped over the molecular-drive switch and the car plunged forward.

It dented the fender of the car ahead of it, side-swiped a farm-truck, upset a "Keep Right" sign and flashed for the open road, with no sound of any running engine.

THE MOTOR-COP lunged for his motorcycle and roared in pursuit. A fourteen-year-old boy is not a startlingly conservative driver at any time. Bud Gregory's son was filled with stark terror. On the two-mile stretch of straight road just around the first curve he gave the car all the speed that molecular heat-energy would yield.

It wasn't the same as atomic power but it was plenty. The motor-cop reached the curve just in time to see the jalopy stop almost as abruptly as if it had run into a brick wall—but unharmed—and go careening into the woods-road. The cop roared in pursuit.

He didn't catch up but in the winding woods-road he ran into patches of below-zero frigidity that almost scared him into giving up the chase. The boy had forgotten to start the engine and when you extract from a motor-block the heat-energy required to drive a flivver four miles at top speed, with acceleration and deceleration thrown in, it gets cold! It left a trail of almost-condensed air behind it.

The wreck happened just fifty yards from the shack in which Bud Gregory's family had settled down. The car slid off the road at the last curve, ploughed through fifty yards of underbrush and spindling saplings, came at last to an immovable stump—and had reached the end of its journeying.

The boy was completely unhurt. But his toes were frostbitten on the twenty-ninth of August, on a bright sunshiny day with all the woods rioting in lush green growth.

The motor-cop got no adequate explanation. Bud Gregory was shaken but firm in his resolution to play dumb. He couldn't explain anything but the boy's toes were frostbitten. In the end the cop took the boy back to the hospital to have his toes treated, resolving to return to examine the wreck.

But of course, when he got back, there was no gadget to discover and absolutely nothing to explain the car's speed, the boy's frostbitten toes or a patch of frost-killed vegetation—in August—where the wreck still lay crumpled.

It was this obstinately inexplicable situation that had been reported to Murfree by his friend of the F. B. I. So he reached that small town as fast as planes would take him, and found Bud Gregory sitting miserably on the steps of the small town's hospital.

The most important man in the United States was acutely unhappy. His son was

going to have to pay a fine for reckless driving, the hospital would charge something, his car was wrecked beyond even his ability to repair it—the motor-block had burst, of course, when the water in the circulating-system froze—and he might have to go to work.

Murfree walked up to Bud Gregory and nodded.

"Hello," said Murfree. "I hear you're in trouble."

Bud Gregory looked up.

"Migosh!" he said helplessly. "It's Mr. Murfree, the Gov'ment man!"

"Not a government man any more," said Murfree. "I've got some money for you."

"Uh—you don't owe me no money, Mr. Murfree," said Bud Gregory unhappily. He peered around Murfree with gloomy suspicion and asked, "You got some detectives with you?"

"Not a soul," said Murfree. "But I have got some money for you. You sold me a gadget once. You'd used it to fix my car."

Bud Gregory spread out his hands.

"You paid me for that, Mr. Murfree. You paid me six hundred dollars. I lived on that for a long time. I et hawg-meat an' drunk beer an' me an' my family came clear across the United States on that money, Mr. Murfree. But you don't owe me no more."

"We'll go and get some beer," said Murfree. "It may take explaining."

Bud Gregory cheered. He looked uneasily about but Murfree had always played fair with him. Their meeting had been in a tiny village in the Smokies when Murfree's car overheated and froze and Bud Gregory produced a gadget which was made of stray radio parts. He plugged it in a light-socket and attached it to Murfree's car.

Immediately the car wasn't stuck fast. It ran. When fresh oil was spread about it was as good as new. Bud Gregory explained casually that the gadget made some sort of stuff—perhaps electronic—which made pieces of metal slide easily on each other.

Later, in an emergency, he sold the gadget to Murfree for six hundred dollars, and Murfree could make it work, but he had never been able to understand it. Neither had the most eminent scientists of the United States. Nor could any of them duplicate it so the duplicate would work. It demonstrably eliminated all friction—all—from any device to which it was attached, but it remained an enigma.

WITH beer before them, Murfree passed five ten-dollar bills across the table. He did not dare offer more, knowing Gregory.

"You sold me that dinkus which stops all friction," said Murfree casually. "I can't understand it nor can anybody else. But it still works. So, since it belonged to me, when I got out of Government service, I took it to a big power-generating station. I explained what it would do.

"We hooked it on the big turbine. And it not only stopped all friction in the bearings but it ended steam-friction against the rotor-blades and baffles. The efficiency of the whole set-up rose by something over eight per cent."

Bud Gregory looked longingly at the fifty dollars.

"But you don't owe me no money," he said unhappily.

"You've got ten dollars a day coming to you as long as that dinkus keeps on working," said Murfree casually. "If you ever want more money just make another one or show me how to do it and I'll take care of the situation."

Bud Gregory blinked. Then he grew expansive as realization came.

"Mr. Murfree, you' a gentleman!" he said expansively. "Soon's my boy's toes get well an' I got me a new car I won't have to worry about nothin'! You come on out to the house with me! My old woman, when she hears this news, is goin' to cook you a dinner that'll sure say thank-you! An' I'll get some beer an' some ten-cent seegars!"

Murfree nodded. He had a telegram in his pocket. The background-count of Geiger-Miller tubes was up to sixty on the Coast here. The soil of the United States was just thirty times as radioactive as it should be. When it reached a certain point, now not so far away. . . .

Back and forth, back and forth, day after day, the little tuna-boats worked busily. They were equipped with bait-tanks and refrigeration units for such tuna as they might catch but they made no attempt to catch them.

Their only purposeful activity seemed to be towing torpedo-shaped containers of lead to points some hundreds of miles from their base island and then allowing the volatile liquid in the containers to flow out on the surface of the ocean and be carried away eastward as vapor.

They took great pains not to be sighted by any other vessel as they went out, tow loaded with its enigmatic liquid, or returned with it empty. They had been fortunate. Only one such tow had had to be scuttled when a transpacific clipper soared overhead, early in their traffic.

Whatever they were trying to do, they seemed to meet with no obstacles as they carried out their purpose.

Murfree still hadn't the faintest idea what could be the cause of the excess radioactivity of American soil alone. The newspapers hadn't found out about it. They probably wouldn't realize the potential danger if they did.

But the lives of a hundred and forty million people were at the mercy of a completely unexplained phenomenon—unless Bud Gregory somehow solved the problem.

Murfree's problem was to get him to work on it.

"I want you," said Murfree, "to work out a gadget to save some lives."

CHAPTER III

Dusty Answer

BUD GREGORY puffed expansively. They were seated before that unspeakable shanty Bud Gregory had pre-empted and which was now his home. They had dined on bracken-greens and grouse—out of season—and sea-trout with cornbread and bacon-drippings and wild fennel and a monstrous brew which Bud Gregory fondly considered to be coffee.

Now they looked out over an inlet of Puget Sound, with sunset colorings making the sky to westward a glory of rose and gold.

"Shucks, Mr. Murfree," said Bud Gregory happily. "I ain't no doctor. I just fix cars. An' now I got me ten dollars a day comin' in rain or shine an' I don't have to bother doin' that!"

Murfree smoked.

"It'll pay you a lot more than ten dollars a day."

"What do I want with more'n that?" asked Bud Gregory. He beamed. "My ol' woman don't need more'n five-six dollars a week for corn-meal an' hawgmeat an' I got a shot-gun.

"I'll git the boys some twenty-twos so's

they can knock over squirrels an' take out for some beer now an' then an' the rest'll buy me a new car in no time. I don't need no fancy car. I c'n make most anything run if it's got four wheels."

Murfree blew a smoke-ring. "I'm asking you to save some human lives," he repeated.

"If they got money to pay me," said Bud Gregory comfortably, "they got money to pay doctors that know all about that kinda stuff. You tell 'em to go to a fella that makes a business o' doctorin'."

"Only," said Murfree, "you have to be the doctor. They'll die of radioactivity burns. Know what I mean?"

Bud Gregory shook his head.

"You know the—hunks of stuff that metal is made of," Murfree said carefully, fumbling for words that would describe atoms to Bud Gregory—who understood them better than any other man alive. "The atoms that are different for iron and copper and so on."

"Yeah," said Bud Gregory. He looked absorbedly at the water before his door. "They different in the middle an' they got different—uh—skins around 'em. Say! There's a school o' fish down there! See 'em jump?"

Murfree felt an impulse to jump himself. Bud Gregory had spoken of atoms as being different in the middle and having different kinds of skins around them. He obviously spoke with precision of atomic nuclei and electron-shells.

But how did he know? Murfree ached with envy of Bud Gregory, who knew so much that Murfree would give anything to know—and who only wanted to sit in the sun.

"Some kinds of metal," said Murfree, as carefully as before, "break down and change into other kinds. Some when stray hunks of stuff hit them"—he referred to free neutrons—"and some all by themselves."

The last was radioactivity. Bud Gregory spoke regretfully.

"If that boy o' mine wasn't in the hospital with frostbit toes he sure would admire to go after some of them fish. Yeah. I know what y'mean. There's some stuff bustin' down everywhere, all the time. Lots more lately."

Murfree stiffened. Increased background radioactivity! How did Bud Gregory know? To say that he perceived the facts of atomic structure and behavior as casually and as effortlessly as a mathematical freak perceives the cube root of 89724387 would be

accurate but it wouldn't mean anything.

Murfree wanted desperately to try to find out how Bud Gregory knew but he foreknew the uselessness of the attempt. He wet his lips.

"Yes," said Murfree. "A lot more's breaking down lately. Thirty times as much as usual. Nobody knows the cause."

BUD GREGORY said off-handedly, "Dust." Then he waved his hand exuberantly.

"Y'know, suh?" he said. "It sure does feel good to know that I got ten dollars a day comin' in without no bother! I don't have to work myself to death no more. I can just set if I want to! You sure are a friend o' mine, Mr. Murfree!"

"What do you mean by dust?" demanded Murfree sharply.

"Just dust," said Bud Gregory. "Settlin'. It's all bustin' down all the time as it drops, sendin' out hunksa stuff. It ain't thick, but it—uh—kinda accumulates." He paused. Then, "Yes, suh! I done a lot o' worryin' in my time but now I aim to stop! You say I'll get that money as long as that dinkus works?"

Murfree stared at him. Dust settling down and breaking down as it settled was radioactive dust. Accumulating. Taking three days to travel from coast to coast. That steady overhead wind from west to east on which the Japs had sent bomb-laden balloons drifting across the Pacific to the United States. . . .

"Wait a minute!" said Murfree sharply. "You say there's radioactive dust settling down? That's not natural! And only on the United States—that's men's doing! It's a sneak attack! And such dust sent in scattered thin would only be noticed by freaks like me! It's an attack with radioactive dust."

Something close to horror came suddenly to him. Radioactive dust has been imagined as a weapon, of course.*

But it has always been imagined as a super-deadly poison gas, a whirlwind weapon killing overnight. There had never been any imagining of its use as an insidious slow poison, killing undetected, murdering a nation by slow, inexorable stages, without warning or provocation or even the alternative of submission or death!

*Note: It is referred to in the Smyth Report on "Atomic Energy for Military Purposes"—the official report on the atom bomb.

But if Bud Gregory were right, that was the case now. The rise in radioactivity could only be the work of men who had set out to murder a nation in a cold hatred surpassing even the hatred of the Nazis for Jewry. It would be the work of men who knew that the United States could never be subdued by any possible weapon and, since it stood in their way, must be destroyed.

Other scientists had observed the rise in radioactivity and had extrapolated its curve. They inferred that if the rise continued much longer there would be danger. If it continued far enough the danger would become fatality. But the danger had seemed only a possibility.

If Bud Gregory was right it was a certainty! The United States was not the scene of an anomalous rise in the background-count of stray subatomic particles. Not at all—the United States was the victim of an attack which would end, if not somehow countered, with the death of every living organism on its surface, down to the smallest quasi-cellular virus on a rotting leaf!

And there was no defense against such a weapon as this—unless Bud Gregory could contrive it. Murfree's voice was unsteady when he spoke again.

"Listen," he said. "Somebody's turning loose that dust. Somebody's, making it. They're spreading it to drift all over the United States and settle, so that everybody in the country will die!"

Bud Gregory spoke obliviously.

"I never did like the idea of workin' myself to death. From now on I can just set, not botherin' nobody an' nobody botherin' me." Then what Murfree had said hit home. He turned his head. "What's that, Mr. Murfree?"

"Somebody," said Murfree shakily, "somewhere out in the Pacific most likely."

Then his brain worked swiftly and surely. In matters that he knew and that his training had fitted him to handle his brain was probably better than Bud Gregory's. He simply had not the intuitive knowledge of facts beyond science which Bud Gregory possessed.

"I see how it's done," said Murfree in a sudden deadly hatred. "You take an atomic pile. If you want radioactive iron, you put a rod of iron in it. When it comes out, it's radioactive. If you want carbon or copper or anything else all you need to do is put it in the right part of a pile, where neutrons

of the proper speed will hit."

GREGORY blinked at him. Perhaps Murfree's statements seemed so elementary as to be nonsense to Bud, or perhaps they were far beyond his comprehension.

"They'd make a pile and run a coiled pipe through it," said Murfree, savagely. "Then they'd run a liquid through that pipe. Any liquid! Gasoline! Kerosene! It would come out radioactive! It could be evaporated and it would spread and diffuse in the air and, as it spread, here an atom and there an atom would break down, emitting radiation and becoming another substance entirely.

"And that would be a new compound which wouldn't stay vapor but would come out as a microscopic particle of dust with an electric charge that would draw moisture or other particles to it! It would grow and grow and ultimately settle down as a dust-mote too small to be seen.

"And that would happen quintillions and quintillions and quintillions of times, and motes of poison would settle—are settling. . . ."

"Mmmmmm," said Bud Gregory. "Yeah. The dust ain't, an' then all of a sudden it is. Like—uh—soot formin'."

The parallel was exact. A vapor like gasoline, burning without enough oxygen, turns to solid soot. Radioactive vapor, transforming itself, would become solid particles of dust, which would attract water-vapor and other particles and settle to the earth.

"Somebody's doing it!" said Murfree, grinding his teeth. "Somebody who wants to rule the earth! They know they've got to knock us out first, before they can try to build up their own nation to jingoism again! So they've started to murder us! Every one of us!"

Bud Gregory spoke contentedly.

"They ain't got nothin' against me! I don't bother nobody!"

He beamed at the sunset. He was gangling and slope-shouldered and untidy. He was utterly without ambition and practically without desires. And he looked at all possible situations only as they affected his desire not to do anything at all. But he was the most important man in the United States. He would have earned any conceivable sum if he had wanted it. But he didn't. He only wanted to sit in the sun.

"You've got to figure out how to beat this

trick!" said Murfree, very pale. "In two weeks the babies that are conceived will begin to be freaks. In a month there won't be any babies conceived. In two months people will begin to die!"

"You' a good friend o' mine, Mr. Murfree," said Bud Gregory amiably. "You just brought me the best news I ever had in my life. You told me I don't have to worry no more. I ain't goin' to, Mr. Murfree! I'm goin' to rest!"

"I'm telling you," said Murfree sharply, "that there are men at war against the United States! They're making war on your country!"

"All right, suh," Bud Gregory said amiably. "Maybe so. But it ain't likely they'll draft me for no war. I'm married an' I got children. Let 'em have a war! If I got ten dollars a day comin' in steady I'm satisfied! I ain't goin' to bother nobody an' I don't want nobody to bother me!"

Murfree clenched his fists. He hated Bud Gregory for a moment. But the most important man in America was neither wilful nor unpatriotic. He was simply impervious to abstractions such as riches or the love of country. The problem had not yet been stated so it had meaning to him.

Murfree compressed his lips. After a long time he stood up.

"All right. Figure this out! If you don't figure some way to take care of that radioactive dust, in three months at the outside I'll be dead. And if I'm dead, who's going to collect that ten dollars a day and send it to you?"

He strode away into the darkness for the four-mile hike back to town. It was the only argument that could possibly make Bud Gregory exert himself.

CHAPTER IV

Danger Point

THE LITTLE boats went about their business, which was the murder of a nation. Even Nazis never dreamed of the extermination of a nation and every living organism which lived on its soil, down to the last one-celled animalcule living in a mud-puddle.

The crews of the little boats moved competently about their task of towing great

containers of a deadly liquid for hundreds of miles from their base and then spreading out that liquid on the water. It evaporated at a known rate. Its vapor was blown eastward at a known rate.

It thinned and attenuated and was mixed with other air so that when it reached the coastline of America it was undetectable except as a minute rise in the background-count of subatomic particles. But as it moved and thinned and thinned it changed—at a known rate.

Presently it was not a vapor but an infinitely diffuse dust-cloud which no instrument on earth could detect as such. It settled to the earth and continued to change and slowly, slowly, accumulated to a layer which, when less than a molecule thick, would make North America a desert.

The inhabitants of the island and the crews of the little ships were very industrious people. They seemed to love their work.

Murfree had his suitcase on the porch of the hotel when Bud Gregory came shambling into the town. The suitcase was on view for Bud Gregory to see. Murfree saw the most important man in the United States come awkwardly, hesitantly down the street. Murfree went briskly out, picked up his suitcase and started toward the bus-stop.

"Uh—hello, Mr. Murfree," said Bud Gregory unhappily. "You leavin'?"

"Nothing to stay here for," said Murfree. "If I'm going to die I might as well be with my family. No use staying here."

"Uh—y'mean—" Bud Gregory said.

"You can make gadgets," said Murfree crisply. "One happens to be needed to keep me from being killed—with everybody else in the United States. Including you, by the way. You won't make it. So that's that."

Bud Gregory scraped his foot on the ground.

"Uh—I made one this mornin', Mr. Murfree," he said awkwardly. "I got to figurin' an' I figured you was right. That stuff that keeps bustin' up by itself is settlin' down all around. An'—uh—it ain't good for humans if it gets too strong.

"So I—uh—I made a dinkus that can gather it up. I figured I could—uh—have my kids clean it up around the house. Y'want to see it?"

"Cleanin' up around your house won't be enough," Murfree said evenly. "For one thing, if there were no crops or any birds or any fish and every tree and bush in the woods was dead—what would you eat?"

Bud Gregory looked miserable.

"Y'want to come look, Mr. Murfree?" he asked. "Maybe it ain't a good dinkus, but—uh—"

"I'll come," said Murfree shortly.

Inside he felt a queer envious turmoil. But Gregory could make anything but he had no idea of the possibilities inherent in his gadgets. He'd made devices of incredible possibilities—and used them to keep from working and to make it possible to win two-dollar bets and to keep from having to buy a new car instead of the wreck he'd owned.

If Murfree'd possessed Bud Gregory's abilities—

"I'll get a car to drive us out," said Murfree grimly, "so if there's no use staying I needn't miss my bus."

"Uh—I'll get some beer an' some ten-cent seegars," said Bud Gregory hopefully. "If this dinkus ain't right, maybe you can figure out somethin' else."

That was hopeful. Bud Gregory was

[Turn page]



... ITS QUALITY

HITS THE SPOT! ★

afraid of losing his pension. Therefore he would try to perform any mere miracle the situation demanded. And he should be able to do anything that could be imagined.

They drove out. Murfree was very silent. He didn't know how the original radioactive material was put into the air, or where, for its sweep across North America. At a guess, the distribution-point should be somewhere out in the Pacific.

PLANES equipped with Geiger-Miller counters might be able to track back the origin of the deadly dust. But planes hunting the hideout of a nation's would-be murderers would surely be detected far away.

And if they were detected the murderers might simply loose a cloud of dust which nothing could either stop or survive. So that there should be no hunt for the men who wielded the weapon until the weapon itself could be withstood.

They reached the woods-road. They went down it. They reached the water's edge. Bud Gregory spoke uneasily under his breath.

"Uh—Mr. Murfree, I wish you'd send this fella back. Tell him to come thisaway presently. I—uh—that dinkus is kinda funny. If it ain't no good I wouldn't want nobody to know about it. They might—uh—think there was witchery in it."

"All right," said Murfree.

In spite of himself, Murfree began to hope. Bud Gregory had been so completely unimpressed by his own achievements before that if he had made something which disturbed him it must be remarkable.

The car went away. Bud Gregory expanded. He went in his house and came out again, bearing an intricate contrivance. It was evident that he was at once proud and apprehensive. The device had no radio tube about it.

There were wires and there were scraps of glass here and there and there was a painstakingly straightened bit of copper gas-line tubing inside an arrangement of wires which was—well—it was not exactly a coil and it was certainly not a helix.

The wires were arranged in several patterns, of which one was certainly a logarithmic spiral. The whole assembly looked insane. And there was a metal plate at one end, nailed to the wooden base. It looked protective, as if it defended the device against something.

"Mr. Murfree, suh," said Bud Gregory

anxiously, "I worked right hard on this, tryin' to please you, suh. You' always been a good friend to me an' I want you to know it. So this was the best I could do. If it ain't enough you try to figure out somethin' an' I'll try to make it."

"What does this do?" asked Murfree.

He looked at it and enviously admitted to himself that every single part of it was meaningless. He saw a switch which was a light-switch from Bud's wrecked car. He saw a bare iron wire which he guessed would turn white with frost when the device was turned on to reveal that it was absorbing heat and yielding electricity. But every other part seemed nonsense.

"This here dinkus," said Bud Gregory hopefully, "it—uh—you know, Mr. Murfree, how the hunks of stuff that things are made of stick together, suh. They kinda pull on each other."

Murfree nodded. Bud Gregory referred to interatomic and intermolecular attraction. The force which holds atoms together in molecules and molecules in crystals and ultimately makes planets possible.

"When you—uh—break somethin'," said Bud Gregory, "the parts you break it into stop pullin' at each other. They' too far away from each other."

Here Bud Gregory referred to the inexorable operation of the law of inverse squares. Atoms draw each other only at atomic distances. Molecules adhere only at distances comparable to the diameter of molecules. Otherwise all objects would fuse together immovably.

"This—uh—kinda changes that," said Bud Gregory, his forehead creased in the effort to explain. "It makes 'em still pull at each other, even far away."

"If you break a nail or a piece of glass an' put one piece in this place here it kinda gets in focus, Mr. Murfree. An' if you point the dinkus at the other piece—uh—no matter how far away the other part is, it—uh—pulls back to the one that's in focus."

Murfree felt incredulous but he suppressed it. In his mind, he knew that if Bud Gregory said it, it was so. Of course it violated all known laws of physics. . . .

"It ain't," said Bud Gregory, "because they used to be one piece of stuff, but because they're the same kinda stuff."

THEN Murfree felt as if he'd been jolted all the way down to his shoe-soles. A

and magnet will draw another steel magnet, not because they are steel but because they are magnets.

But Bud Gregory was saying that a bit of iron in the focus of his gadget would draw other bits of iron whether there was magnetism or not. More, he said that glass would draw glass! Murfree knew that Bud Gregory could do anything, but he could not believe that!

"I don't see how—"

"I'll show you, suh," said Bud Gregory anxiously. "I'll put a drop o' water right here where it focuses, suh, an' point it at the inlet yonder. It'll draw water."

He put a drop of water on a plate behind the straightened-out section of gas-line tubing. He pointed the device at the broad waters of this inlet of Puget Sound. He turned the switch.

Water splashed from the protective metal baffle-plate at the end of the gadget's base—quantities of water. It splashed as if a fire-hose played upon the baffle-plate. Murfree, goggling, saw a straight pencil of pure liquid water, impossibly defying gravity, coming toward the gadget from an indefinite distance out in the Sound.

It flowed through emptiness, through space, through the air itself as if it were in an invisible hose. It came in a mathematically straight line from the inlet beyond the shore. It hit the baffle and splashed. And Murfree knew that, since water was in the focus of the gadget, therefore water had been drawn from wherever the tube pointed.

Bud Gregory flipped off the switch. Water ceased to splash. A half-mile-long cable of water, stretched taut in mid-air, abruptly dropped. There was a wet streak across the ground toward the inlet. There was a long, long path of pock-markings where a straight line of water had fallen back into the inlet.

"M-my gracious!" said Murfree, dazed even though he knew Bud Gregory's gifts. "You've got a sort of artificial gravity! Only—only it's selective! You can pull any element toward you."

"Yes, suh," said Bud Gregory. He sweated, looking uncertainly at Murfree. "I—uh—I figured, suh, that if we could get up a liddle bit of that dust, we could kinda put it in this focus place, suh, an' we could sweep this dinkus all around an' all the dust that was the same kind as that in the focus would get pulled up an' stop against this plate that stopped the water.

"I put that plate on last," he added ruefully. "First time I turned on this thing I tried water an' I got soakin' wet. I hadda put somethin' on to catch the stuff that was bein' pulled."

Murfree stared, stunned, at the completely impossible device. No wonder Bud Gregory hadn't wanted it seen lest it make him liable to a charge of witchcraft! Such a charge was moke likely in his native Appalachians, but even here—

"You think that'll do what you want, Mr. Murfree?" asked Bud Gregory hopefully.

Murfree opened his mouth to speak exultantly. Then he realized—he became tormented by the ruthless reasoning which told him of the present uselessness of this device, even while he was filled with envy of the man who had been able to make it and with admiration for the achievement itself.

"No-o-o-o," said Murfree reluctantly. "It won't do because there'd be the job of getting a sample of the dust. It would take weeks to gather up a carload of top-soil and separate the radioactive dust from it. We couldn't allow impurities such as humus or sand, or it would pull humus and sand with the dust.

"And if it took weeks we wouldn't have the dust itself but the stuff the dust had turned into. And even besides that—what would happen if you pulled into that gadget all the radioactive matter intended for a day's dose of poison for a continent?"

Bud Gregory's shoulders drooped.

"I reckon," he admitted, "that it would sure kill anybody who was workin' the dinkus."

"Definitely," said Murfree. "So far, no good."

There was a pause.

"Mr. Murfree, suh," said Bud Gregory anxiously, "let's us drink a little beer an' just set a while, suh. Maybe you'll think of somethin'."

Murfree followed him grimly back to the shack. He was in the completely maddening position now of having Bud Gregory's complete cooperation and having no idea how it could possibly be used.

Bud would make anything Murfree asked but Murfree could not imagine a device which would defeat the weapon in use against the United States. And the weapon had to be defeated before any search could be made for those who wielded it!

Murfree sat with a glass of beer in his

hands. He racked his brains vainly. Bud Gregory sat beside him, drinking beer. Presently he spoke dreamily.

"Y'know, suh, I'm thinkin' that maybe instead o' buyin' a car outa that ten dollars a day I got comin' to me, maybe I'll get me a boat. You can set a lot more comfortable in a boat than in a car you got to be drivin' all the time. Yes, suh, I'm goin' to think about buyin' me a boat!" . . .

The tuna-boats worked valorously for the murder of a nation. Their crews knew joyfully that the last of their fellows who had remained in the United States—to test the results of their campaign—had left that country. The intensity of radioactivity which should result in mutations and monsters had almost been reached.

Sterility would follow, then death. And of course those who worked to murder America would cheerfully sacrifice their lives to accomplish it if necessary. Hatred is a stronger force than patriotism.

But there was no need and every man wanted to survive for the hellish satisfaction of knowing that all North America was a place of corpses—not even rotting because even the bacteria of putrefaction were dead too.

The tuna-boats towed their lead torpedoes away from the island where atom-piles made poison for them to scatter on the wind. They scattered that poison and returned for more. Enthusiasm mounted and mounted. Plans began for such a celebration as would befit the destruction of the greatest nation upon earth.

CHAPTER V

Killing Fish

IT WAS dark. The car had come back for Murfree and he had sent it away again. He paced up and down. He chewed his fingers. To know of certain doom awaiting one's country and to have as one's ally a man who can do anything that can be imagined in the way of physics—and much that cannot be imagined—and not to be able to think of anything either possible or impossible to avert the doom—it was maddening.

Bud Gregory grinned amiably.

"Mr. Murfree, suh, have you thought of anything? If you ain't maybe we'd better

set an' eat."

Murfree shook his head wearily.

"I'm still trying to think! If there were only some way to make that trick of your work of any and every unstable element."

"You mean, suh, all the kindsa stuff that busts up by itself?" Bud Gregory asked.

"That's it," said Murfree exhaustedly, "but there's nothing—"

"Sucks!" said Bud Gregory. "That's easy, suh! The middle of the little hunka stuff that breaks down, it ain't solid, suh. There's somethin' holdin' it together, only it ain't satisfied. There's somethin' else pushin' it apart."

"So those two things fightin' each other, they make a kinda—uh—uh. . . ." He knitted his brows. "Like a magnet, suh, an' a coil. A—uh—a field? Yeah! There's a—uh—field about the little hunksa stuff that are the kind that break down. All of 'em. You can pull 'em by that field."

He beamed but rather pityingly, as if explaining something to an infant in fond astonishment at the child's lack of knowledge. He had spoken casually of the factors causing instability in all elements heavier than bismuth and then had gone on from there. Murfree looked at him with lacklustre eyes, worn out by his hopeless struggle to think.

"That would be a start," he said heavily, "but even then it wouldn't be practical, because if you dragged all radioactive substances to your dinkus you'd start a pile going around it to make more. If you could make it—make it—Wait!"

He stood tense for a moment. Then he spoke hopelessly.

"You couldn't make radioactives clump together where they were, could you? If we could make the dust gather into pellets so it'd be heavy and drop into the sea, the sea might be poisoned but we'd gain time."

"Clump together, suh?" Bud Gregory said. "I'll think about that. It'd mean turnin' the dinkus around. Puttin' the focus out front."

He frowned. Presently he complained, "I'm sure havin' to earn that ten dollars a day! I ain't thought so hard since I fixed a fella's car for him down Los Angeles way an' he paid me two dollars."

Then, suddenly, he snapped his fingers. He stood up and stretched.

"We'll eat us some supper, suh, an' I'll get to tinkerin'. It ain't goin' to be so hard but I got to make a brand-new dinkus."

He led the way happily into the shack.

"What'd you think about a kinda boat? Seems to me I could just buy me a sailboat an' put a hunka metal somewheres inside. Say! I could put a big pipe outside, an' run that field I used to pull my car uphill into it.

"It'd pull the boat along an' water'd run through it an' keep it from gettin' too cold! Yes, suh! Not have to bother with no gasoline or nothin'! Save money that way an' with ten dollars a day comin' in an' only havin' to throw a fish-line over the side. . . ."

Wind blew across the Pacific through the darkness. Across uncounted leagues it blew, carrying invisible molecules of vapor. And now and again some atom in one of those molecules emitted a fierce, invisible particle, and became another element entirely and the compound of which it was a part became another compound.

It ceased to be vapor and became an ultra-microscopic particle of dust which was deadly poison. Some of those dust-particles fell into the sea. But most of them passed over the dark shoreline, gathering moisture and attracting other particles to themselves. They settled down toward the ground.

But the wind was not cleared of poison by that settling. Other invisible molecules of vapor emitted fierce rays and became other dust-particles. And this happened quintillions of quintillions of quintillions of times in the wind which blew in over the sea.

The tuna-boats were still busy.

SHORTLY after one o'clock in the morn-
ing Bud Gregory grinned exuberantly at Murfree. He had made a new contrivance on a bit of slab casually ripped from the outside of the shanty. There was a larger brass tube in the place of the gas-line of the earlier model. It had once been part of a tire-pump.

There was the same strangely-shaped sequence of wire wrappings, including the logarithmic spiral. Their sequence, however, was reversed. And there was a new device at what had been the focus, which was simply meaningless. Of course an iron wire was there.

Murfree knew it would turn white with frost when the device began to operate. It absorbed heat and made electricity. Perhaps primarily it made something else, with electricity only as a by-product. In any case it provided the power.

"This here ought to take care of it, suh!" said Bud Gregory. "We set it up an' aim it an' turn it on. Any kinda stuff that's in the wind that could bust up of itself, gets like the water I put in the focus this mornin'. It pulls to itself all the other kindsa stuff that busts down. Which way'll I point it, suh?"

Murfree considered, rather hopelessly.

"We want to clean up the wind that blows to the coast. How far will it range?"

"A long ways, suh! A long ways! It won't go straight off outa the air, neither. It won't travel nowhere there ain't some air. It'll bounce back when the air gets thin enough."

It would not be like a radar-wave, limited by the horizon.

"We'll try southwest," said Murfree. "Maybe a little west of southwest. We want it to spread out and work as far offshore as possible. Are you certain it will work?"

"You got a radium-dial watch?" asked Bud Gregory.

Murfree understood. He stripped off the watch. Bud Gregory hung it to a bush some fifty yards away. He pointed the new device at it, and turned it on. Instantly the faintly luminous numerals on the watch-face seemed to flame a lurid blue. Bud Gregory turned off the device. The watch-dial still glowed brightly—brightly!

"That dust that's been fallin'," said Bud Gregory humorously, "got pulled to the stuff in your watch. You better not wear that watch no more, Mr. Murfree. Not without you wash that dust off."

Murfree swallowed. Bud Gregory's device had endowed every particle of radioactive matter in its beam with the property of attracting and being attracted by all other radioactive matter. The tiny particles of radium in the luminous paint—one part of radium in twelve million of zinc sulfide—had been unable to move.

They were anchored in the paint. But the radioactive dust on the ground could move. It did move, swiftly, to cluster about the watch. And the zinc sulfide glowed as brightly as if it had suddenly been enriched to a thousand times its former radium content.

Murfree drew a deep breath.

"We'll kill a lot of fish," he said grimly. "Maybe we'll do more damage than that. But I'll take the responsibility. There's nothing else to do! Come on, we'll aim it and turn it on again."

They did. They set it on a tree-stump and Murfree oriented himself by the north star

and pointed the botched-together device which only Bud Gregory could understand a little to the west of southwest. That was Murfree's best guess of the optimum setting, considering the coastline. He threw over the switch. The iron wire frosted, providing power. He saw it turn white in the starlight.

Aside from that, nothing at all seemed to happen.

CHAPTER VI

Ball of Fire

A TUNA-BOAT was towing a lead torpedo through the darkness. It was, as it happened, heading back toward the island which was its base as it let the volatile liquid pour out on the sea. It had been forced to make a wide circuit to avoid observation by ships below the horizon. But otherwise everything was commonplace.

Then, without drama, the wind seemed to change peculiarly. Not the upper wind above the sea's surface—just the wind at the water's own level, saturated with the vapor of the liquid the torpedo had let out.

It blew toward the island on which the uranium piles worked. Since the tuna-boat lay in its path and offered resistance, the surface-wind piled up near the hull and flowed over and through the little ship.

A bell clanged stridently. Frenziedly. The bell was attached to a very ingenious device which tripped a relay if the background-count of a standard Geiger-Miller tube went above a conservative minimum.

It was necessary on a boat towing tanks of volatile and furiously radioactive liquid. But it was quite dependable. It gave instant warning and the members of the crew hastened to put on their protective suits, which long custom had led them to discard. The only flaw in the whole affair was that the warning-device had not operated fast enough. No device could have been fast enough.

The men who climbed into their protective suits breathed in as they moved a concentration of radioactive vapor intended to provide a day's increment of poison for acres in every breath. The men who locked their suits airtight locked in enough radioactive gas in their lungs to kill them fifty times over.

Of course they did not notice it at the time. Perhaps they never noticed it. The little tuna-boat went on through the night. Presently it strayed off-course. The man at the wheel happened to be dead. So was everybody else on board.

The great leaden float was empty of its poison, which did not happen to be moving toward America. It constituted a cross-wind, blowing toward the home island of the tuna-boat. It was drawn by the force which holds the nuclei of atoms together, which force does not diminish according to the law of inverse squares.*

At all distances, radioactive particles within the beam were drawn together with a force proportional to their masses, but not in proportion to distance.

There were atomic piles on the island from which the tuna-boat came. There were tons upon tons of uranium in those piles. They drew radioactive particles as the sun draws meteorites. Even radioactive gas-particles given off in the decay of fish killed by the towed tanks—even such gases moved toward the island.

There was nothing spectacular about anything which happened at first. A tuna-boat drove aimlessly through the night with all of its crew dead. A swift low breeze blew toward the island—many swift low breezes. Until they arrived nothing in particular seemed to be in train. But when those winds flowed over the island the situation altered gradually.

Radioactive gases and vapors clustered about the shielding around the atomic piles. More and more vapors and dust-particles arrived momentarily, drawn as by irresistible magnetic attraction. They reached the shielding-walls and clung. More came, and more, and more, and more.

As they flowed and darted across the island the island's population died. They did not notice. For a space they moved and chattered and prepared celebration—before they discovered that their bodies were still-moving corpses which gradually ceased to move.

There were no witnesses to what happened after that but it went on quite rationally. The atomic piles had been limited in their size so that they could be controlled. An atomic

*Note: The binding-force holding atomic nuclei together is known not to diminish according to the law of inverse squares, as do magnetism, gravity, electrostatic force, etc.—W.F.

pile will never explode.

If it runs wild it will simply heat up and up to a temperature dependent solely upon its size and material. But the homing radioactive particles raised the temperature-limit of the piles they clustered about and seeped in to join.

PILE-ACTIVITY increased by the activity of the short-life products returned to it. The cooling-water turned to steam and ceased to flow. The piles glowed dull-red and then cherry-red and then blinding white, still without reaching their self-limiting temperature.

There was too much short-life radioactive matter around. Presently the piles vaporized and then they ran together in one monstrous mass of incandescent vapor whose normal self-limited temperature was higher yet.

This took time. It was all of an hour after the beginning of the whole process when a great globe of incandescent gas burned everything upon the island to a ghastly ash. The island was blasted, baked, dead, desolate.

Then the globe of vaporized metal—it was almost a mile in diameter—soared skyward in exactly the manner and for exactly the reason that a balloon would have risen. It was as bright as the sun but it was utterly harmless. The radiations it emitted were absorbed by other elements which became radioactive—and instantly joined the globe.

The globe rose skyward. It made all the sea as bright as day for twenty miles around. It went up and up and up. . . .

When dawn came it had burned out. Its energies had been so trapped that only light and heat could permanently leave its mass. Undoubtedly, if there were observers on the

then-favorably-situated planet Mars, they saw the flare.

But it did no harm beyond producing an anomalous warm area over a certain part of the Pacific which ultimately resulted in a local low-pressure area with resultant winds and precipitation—in short, a local thunderstorm. That was all. Only the people on the island would have noticed that. And they were dead. . . .

When the background-count was down to 45-47 on the Pacific Coast, Murfree agreed that the device could be turned off. It was nearly a week before that happened and in the meanwhile he had calculated very nearly what must have happened far out at sea.

He knew that nobody who had planned to murder America could still be alive and it was very unlikely that anything remained of the apparatus they had worked with. He did wait until the radioactive dust that had spread over America had definitely entered the second half of its life.

Then he got ready to go back to his wife and daughter.

"Yes, suh!" said Bud Gregory warmly, "you sure are a friend o' mine! You' goin' to send me that money regular, suh?"

"I'll send it," said Murfree. "Every week."

A boy came with a telegram for him. He put it in his pocket. It would be a background-count report, he considered, and it didn't matter.

"I'd like to give you a—uh—present," said Bud Gregory warmly. "Somethin' to show my appreciation, suh. Could—hm—would you like to have this here dinkus I made first, suh? I'll just give it to the children to play with if y'don't want it. If you'll take it to remember me by—"

"Thanks," said Murfree. [Turn page]

Now She Shops "Cash and Carry"

Without Painful Backache

Many sufferers relieve nagging backache quickly, once they discover that the real cause of their trouble may be tired kidneys.

The kidneys are Nature's chief way of taking the excess acids and waste out of the blood. They help most people pass about 3 pints a day.

When disorder of kidney function permits poisonous matter to remain in your blood, it may cause nagging backache, rheumatic pains, leg pains, loss of pep and energy, getting up

nights, swelling, puffiness under the eyes, headaches and dizziness. Frequent or scanty passages with smarting and burning sometimes shows there is something wrong with your kidneys or bladder.

Don't wait! Ask your druggist for Doan's Pills, a stimulant diuretic, used successfully by millions for over 50 years. Doan's give happy relief and will help the 15 miles of kidney tubes flush out poisonous waste from your blood. Get Doan's Pills. (Adv.)

He got on the bus that would take him to the nearest town with an airport. After the bus pulled out, he idly opened the telegram. It was from the generating-station that had been using Bud Gregory's gadget.

FRICITION ELIMINATION DEVICE SMASHED TODAY STOP. WORKMAN DROPPED TOOL FROM OVER-HEAD STOP. CAN YOU SUPPLY OTHERS WIRE IMMEDIATELY.

Murfree felt a little sick. He had to keep Bud Gregory's confidence for dealings in the future should Bud Gregory be needed. He had strained that confidence to the limit now. If he asked for more, on a second threat to stop the ten dollars a day Bud Gregory counted on, it would be an end to everything. With that money Bud Gregory would sit in the sun and, when needed, he'd be on hand. If he didn't get that ten dollars. . . .

At the airport Murfree sent a telegram to his former superiors in the Civil Service. He asked for his job back. He didn't know how he could make out, having to pay Bud Gregory ten dollars a day out of a forty-seven-hundred-a-year income but he felt desperately that it simply had to be done.

At the Cleveland airport he got an answer.

YOU WERE WARNED YOUR RESIGNATION WOULD BE CONSIDERED FINAL STOP. IT IS FINAL.

It was signed by the administrative officer who had objected to the disarrangement of vacation-schedules in order that Murfree might stop—as it had developed—a radio-active-dust attack upon the United States.

MURFREE sank back gloomily into his plane-seat. He had to find a new source of income. He had to pay Bud Gregory thirty-six hundred and fifty dollars a year before he bought a loaf of bread for his own family. To live as he'd lived before he'd have to make over eight thousand a year. And the only thing he had now that he hadn't possessed before was the gadget Bud Gregory had made.

Suddenly his face went blank. He whistled softly to himself. He stared out the plane-window for a long time. Then he went composedly to sleep.

When he joined his family at the seashore his wife was worried. She knew he'd left the Civil Service and had no immediate prospects. She asked him what his plans were. He grinned at her.

He unpacked the untidy parcel Bud Gregory had made for him—the device that had drawn water from a half-mile away. This was in the boarding-house where his wife and daughter had stayed while he was on the West Coast.

"I think I'll go in business for myself," he said comfortably. "Lend me your wedding-ring for capital, my dear."

Her expression was bewildered as she gave him the plain gold band. He put it in the focus of the device where Bud Gregory had put a drop of water. He sighted the gadget out of the window at the ocean. He turned it on. It would draw to itself any particles in its beam which happened to be of the same material as that in the focus of the device.

There was a metal plate to catch the drawn particles. His wife's golden wedding-ring was in the focus—and the sea contains gold. Only about a grain of gold to a ton of seawater, to be sure, but still—

A deposit of tiny, impalpable particles built up on the baffle-plate. Each infinitesimal grain, perhaps, came from a ton of seawater. But there were some thousands of billions of tons of seawater in view from the boarding-house window, and it would change, more or less, with each tide. Gold-dust came to the baffle-plate with respectable speed. Murfree turned it off presently.

"This is useless stuff, though," he said. "I'll go out and buy you something made of platinum. That's useful—and it's worth more than gold besides. I'd rather go into the platinum-producing business, any day!"

His wife gaped at him. He explained.

"I have to pay Bud Gregory a pension," he explained, "and this is the answer. I'm going to build myself a laboratory and see if I can get an inkling of what he knows off-hand.

"I'll be able to give him all the money he can use now and I've always wanted to do some research on my own. I know just about exactly—what sort of a laboratory I want!"

Then he added: "Somewhere on the seashore."

NOON

By HUDSON HASTINGS

John Weston balks death — but not destiny — when he tries to save Serena, mindless perfect woman, from the Flame Blossom!

WHEN he looked up from the pool, the garden was—different. In the water Weston had seen the reflection of blue sky and sunset clouds, and the shape of a plane going over. The deep buzzing of the engines had suddenly died. It had been sunset; now it was noon—and he was no longer in Versailles.

It had taken months. But the miracle was that it had happened at all. People who search for miracles seldom find them. Yet John Weston, perhaps because he was idle and footloose and wealthy enough to indulge his impulses, had come searching for a phantom, and had found it. Dunne had been right, and the theory of serial time could be right, and the authenticated tales of temporal apparitions in the Versailles garden were more than merely tales.

The first day he had come here he had sensed a shifting and a strangeness, but it had passed quickly. Still, it was enough to anchor him here, strolling through the old paths, not quite believing that he would ever again see that face he had glimpsed momentarily through a shimmer of spray. Time-traveling was nothing you could weigh and balance. It either happened or it didn't.

And now it happened.

Weston stood without moving, looking around. The trees had moved and changed, and not far away were low blue buildings with conical roofs. Underfoot was a thick, soft moss instead of grass. The pool was still at his feet.

After the initial shock of incredulous amazement had passed, he began to walk toward the cone-roofed buildings.

Then the second miracle happened. Three



The glass globe Serena carried was translucent and glowed with a strange greenish light

people came out of one of the structures and began to walk toward him. One of them was the girl whose face he had already seen. The others were young men, thin, wearing tunics of shining bronze-green, like the girl's, and a curious vitality seemed to shimmer from them as they walked.

As Weston looked at them, he felt certain that this was another world or a far-distant era in time. They were almost unbelievably slender, but not awkward or angular, nor were their thin, pointed faces sharp. Bronze-green eyes looked at him.

Weston opened his mouth. The impossibility of communication occurred to him. But they were waiting.

"Hello," Weston stuttered almost at random.

The three smiled at him and repeated his greeting. It might have been merely a friendly echo. Weston, slightly stunned, tried again.

"Where am I?" he asked. "What place is this?"

"This is Jekir's," the girl answered.

"Oh. W-what year is this?"

BUT this time they looked at him, still smiling, but waiting for something. It was very quiet; leaves rustled somewhere.

One of the men turned and walked softly away.

"He has work to do," the girl said. "Have you finished yours for a while? My name is—"

It sounded something like *Serena*.

Weston had not expected this placid acceptance. He began to explain and question, but the girl interrupted him.

"I must get back to my work, too." She turned, and Weston, hesitating, glanced helplessly at the other man.

There was no help there.

Weston went after *Serena*, feeling baffled. She had gone into one of the buildings. It was an amazing place, Weston found. There were corridors and little irregular rooms and floors like balconies, and all the partitions were translucent, like the walls. Lights came in green, deep blue, and ocean-purple.

When Weston caught up with the girl, he saw that she was carrying a globe of glass. Not until they emerged in the daylight did he see that it was apparently full of smoke, a trickle of it escaping through an opening in the top and drifting back as *Serena* walked.

She put the sphere down on the moss and began her work, totally ignoring Weston. She made fires spring up—Weston was completely puzzled by the method—and simply sat and looked at the flames. That seemed to be all there was to it.

Twice Weston spoke to her, but she did not answer. He finally began to explore the buildings. In the end, he was no wiser than when he began, and he had not encountered either of the two men. Whatever he had expected, it wasn't this.

He thought: Why aren't they surprised? Had time-traveling become common or was there another answer?

The noon passed into afternoon and the beginnings of blue evening, while Weston moved like a ghost through that strange, incomprehensible place that was too alien for him to understand. Finally he saw *Serena* and the men sitting on the moss before one of the buildings. He went out to them, and saw that they were eating. He joined them.

It was the strangest meal Weston had ever had. The earth served him! A little pool opened in the lawn at his feet, exactly like an opening mouth. It was full of something like jelly. Weston, watching the others, scooped up some of the stuff in his palms and tried it. It was palatable enough.

Then, around the pool, a ring of small green plants pushed themselves up, budded without blossoming, and put out round fruits like little balloons which swelled as he watched. *Serena* plucked one and ate it. Weston closed his mind temporarily to questions and—had dinner!

When they finished, the pool closed, and the tiny plants fell to bright pink dust that sifted into the moss. The three aliens sat back, paying little attention to Weston, and talked.

"The fires were burning well today," *Serena* said. "It was easy to handle the clay."

"I had a little trouble," one of the young men murmured.

"Will you finish soon?" Weston asked, and they looked at him with odd eagerness.

"I shall. I think I shall," *Serena* answered. "How far along are you?"

"That isn't my job," Weston found himself saying. "I'm from a different time. This isn't my world at all. I—I—"

He stopped, because they were looking at him with polite inattention. Then they

went on with their talk as though he hadn't taken.

It grew darker. Time in that world was different. Weston had left Versailles at sunset and stepped into noon. Finally Serena stood up and led the way back into a grove of tall trees. Four branches were hanging low, and at the end of each branch was an enormous folded flower. The flowers opened slowly.

Serena stepped into the soft trough of the nearest and stretched out. The petals folded about her, and the branch rose. The two men also relaxed in similar fantastic hammocks. One flower remained.

Weston hesitated, alone in the gathering darkness. He had not had a single question answered satisfactorily since he came here. He had met only acceptance. Even this world accepted him without an inquiry. There were now four flowers—perhaps last night there had been only three.

Serena and the men were invisible in their blossom-hammocks above Weston's head. He drew a long breath and turned away. He went to the pool that was that gateway back to his own time, but something stopped him from making any definite move toward return. This opportunity might never come again. He had what he had wanted. He was in another time-world—but such a world! How could he find out?

IN THE end, he returned to the fourth flower and lay down. The petals folded around him. There was a sweet, cool scent in his nostrils, a warm rocking—and that was the last thing he remembered. The next day—

The next day the two men tried to kill him.

The flowers opened at dawn, and the four bathed in a pool of glowing water that felt like silk. And another tiny crater opened in the moss to feed them all. Afterwards, ignoring Weston's futile questions, Serena went away to her work. The two men watched Weston follow her, their eyes coldly interested.

By now Weston knew he must leave very soon. If he did not get his questions answered quickly, they would never be answered. So he kept interrupting Serena at her work, asking what it was she did, what this world was like, a thousand other queries that apparently meant nothing at all to her. Sometimes she spoke, but only

once did she give Weston any real help. Once she said:

"You must ask The Knowledge about that." And she gave Weston directions.

Perhaps it was merely to get rid of his annoying presence.

At any rate, he followed Serena's instructions, feeling like an ignorant child in a place of inconceivable maturity. Yet The Knowledge sounded very helpful. A library of talking books or pictures, or a radio-atomic brain. Weston began to feel rising excitement as he searched in the building Serena had indicated.

At first he couldn't find it. The room looked ordinary, insofar as any of those rooms of deep, cool light and color could ever seem ordinary. But after a while one of the men brushed past Weston in the doorway and crossed the floor to stand before the far wall.

In the wall an oval of shining light dawned. The man seemed to listen. Then he turned and went softly out by another door. The bright oval faded.

When Weston stepped in front of it, the panel came to life again. It was The Knowledge, all right. And it was the equivalent of a super-library. A machine—yes, a radio-atomic brain, a mechanical colloid that was the culmination of the thinking machines of Weston's own time. It could answer questions. Serena's race had come to need a radio-atomic brain, because they had lost a certain human factor, over the long, long ages.

They had lost intelligence.

They had initiative. So has a plant. So has a flower. And their was the force that activates unreasoning things. The Knowledge explained that, in answer to Weston's silent questioning.

But it was only a machine—it didn't know all Weston wanted to learn. He found himself looking for some human understanding to go with the more than human wisdom it seemed to have—some friendliness!—behind that shining panel, and of course there was nothing like that at all. A radio-atomic brain, keyed to perform certain functions, but without initiative, to give the humans knowledge as they needed it.

Weston got his answers at last.

After a time he stepped outside to get some fresh air. He felt stifled. He could see Serena and the others working away at their unearthly fires, and overhead was the burn-

ing sunlight of mankind's long noon.

Yes, it was noon. It had been noontide for a millennium!

What Weston had expected to find in the future was problematical. But he had not expected this—what The Knowledge had told him. He stood there, sweating and curiously unwilling to move. Around him were tiny rustlings in the moss. He could hear the flames roar up, and twice he heard a very deep sighing, like a giant drawing the first breaths of life.

It was noon. That was the answer. A noon that might have lasted for a million years. Weston tried to comprehend it. But he was used to flux. He found it hard to realize that when you reach perfection, by the definition of that term you can't go up or down.

Serena's race had achieved perfection. It had stopped at mankind's midday. There would never be afternoon or twilight but, Weston thought coldly, in the end, there would be night!

It had happened before, he knew. Ants and bees were found in fossil form a million years old, exactly like ants and bees today. And the ordinary cockroach is a hundred million years old in its form. When it achieved perfection, absolute adaptation to its environment—it stopped. As the human race had stopped, too.

Noon. . . .

WESTON looked for Serena. He still couldn't quite believe that she was—what she was. He saw her working with the two men, and amid the fires a giant figure stood motionless. Weston called to the girl.

Noon!

He knew now the kind of work they did, and why it absorbed them so utterly. He knew that they were creating—life. Creating it endlessly, hopelessly, in unstable forms that flickered out or were destroyed as they sprang flawed from the fires. He knew a little of the myriad experiments they had tried and found useless. And perhaps, in a way, he guessed why they worked, and why they failed.

It was clear to him too, by analogy, what had happened to the human race in the interval between his own time and this. He went looking for Serena presently. He wanted to gaze on her strange, vibrant, other-worldly brightness and try to convince himself that she was—what she was.

For already he was finding something al-

most hypnotic about the girl. Such brilliance, such dazzling perfection, such incredible sureness in all she did, without a wasteful motion or a moment of indecision. Of course that was possible to her—as it is impossible in ordinary humans—because she was what she was. Still, he had to look at her.

He found her working with the two men and among the fires he saw a giant figure stand motionless, looming above them.

"Serena!" he called.

He thought: If I could tell her, make her believe what has happened, perhaps she'll really notice me.

She came forward, wiping the flames from her hands like water. There was a look even brighter than usual on her glowing face.

"We will succeed this time," she said, and Weston went cold. "Now that you've come, a new factor is made available for us. You need you. The Knowledge has just told us that if we use your mind-factor, we have a better chance to succeed."

He looked into her eyes and read the emptiness there. Her hand was suddenly on his arm, tightening. And she was strong—terribly strong. The two men had left their fires and the giant figure, and were moving toward Weston.

He tore free and went running across the moss, running as hard as he could toward the time-door by the pool, under the bright, timeless noonday sky.

Then out of the moss a subtle rustling stirred again, and suddenly Weston felt his feet caught and held. He pitched forward and slid along the ground.

When he sat up, he was looking around at a ring of incredible tiny beings—not human or insect or animal. Brightly tinted little beings that shimmered around their edges with an unreal glimmer. As he looked, two of them seemed to dissolve and vanish upon the air. The others, low down in the moss, stood watching with hard, jewel-bright eyes.

Experiments The failures . . . He closed his mind to the thought. Serena and the two men stood above him, looking down with polite, waiting eagerness—waiting, he thought, to feed him into the flames and remould his flesh into—

Serena smiled and held out her hand.

If he could make her understand! Deep panic chilled him. He must play for time!

It could be done. They were not really intelligent. He knew that now.

He stood up. "Wait," he said. "I'll go with you, but let's make quite sure first. There've been mistakes enough already. Come back with me to The Knowledge, and listen to what it says when I question it."

They came quite willingly. The flock of my bright things rolled after them, unreal, shimmering. Weston thought of Eden.

The oval window opened in the wall. Weston asked a question, and in his mind and in the minds of the others an unexpected answer took shape.

"Yes," said The Knowledge, "You have a factor of the mind that could mean success. A factor I have sensed in the Golden Light itself, which is the essence of perfection. But the woman here has more. It is recessive in her brain, but far stronger than the dominant factor in yours."

Weston spoke to gain time.

"The Golden Light? What is that?"

"I am not capable of answering. That is unknown."

Serena had not listened.

"Will we succeed if I use myself as material in the work?" she said tranquilly.

"Serena, you can't do that," Weston said.

HE didn't hear. She turned and went out, the men after her. One of the men looked back briefly at Weston, and the cool deadliness was gone from his eyes. For Weston didn't matter any more. Not to them.

He could tell that the personal danger to him had passed. And now that he could have made his way to the time-door without hindrance, he did not. He had to see what was happening to Serena. So he followed the three.

This time he had a better look at the figure being moulded in the flames. It was a man, a giant, more than eight feet high, beautiful as a god and quivering with half-sentient life. But its eyes were blank.

The three humans were busy around a new fire they had kindled. Weston stood watching. They completed their preparations. Serena steadied herself on one of the men's arms and prepared to step into the fire. Weston found himself lunging forward—in time.

He got her by the shoulders and pulled her back. The men glanced at him calmly, incuriously. The fires seethed up.

"Serena, you can't!" Weston said. "I won't let you!"

She didn't answer. His words meant nothing. He could feel the continuous steady

pressure of her body as she leaned toward the fire, ready to enter it the moment he let her go.

One of the men seized his wrist and tried to free her. Weston was glad for an excuse for explosion; he was on surer ground there. He swung around and struck once at the man, very hard, hitting him on the corner of the jaw. The man was lightly built. He went down in a heap and lay there looking at Weston without surprise or anger, but with a clear intent in his eyes.

Weston swung Serena off her feet and started away at a heavy run, carrying her. When he reached the corner of the buildings he paused to look back. The men had returned to the other fire where the giant figure stood, and they were working on that, deftly and fast, wasting no motions. Twice they pointed after Weston.

He put Serena down, keeping hold of her wrist. She didn't resist, though once when his grip slipped she turned instantly and began walking back toward the fires. Weston caught her again and hurried her away toward the time-door that led to Versailles and the Twentieth Century.

He couldn't find it. And, quite soon, around one of the domed buildings the giant came walking, unsteadily, tentatively, his eyes fixed on Serena. He was tremendous. He was unsteady, because he had just been created, Weston knew, but he came on relentlessly.

The enormous hands gripped Serena gently, pulled her free and started to carry her back to the waiting men.

Weston jumped on the giant's back and got a judo hold. Serena fell free, but Weston found he couldn't hurt his opponent. The giant didn't try to fight; he merely strove to escape, and he was tremendously strong. It was even possible to feel, under that satiny, pallid skin, that the muscles weren't normal human tissue; they were tougher, like heart-muscle. The only reason Weston could cope with him at all was that the monster was so new. He hadn't learned to coordinate yet. He had only that single drive, Weston thought—to get Serena. Nothing in the world could turn him from that.

And Serena was walking back toward the fires. It was a nightmare. Weston let go of the giant and ran after her, lifting her in his arms. She lay there lax. There was no use trying to find the time-door now; he simply ran. And the giant came slowly after them.

Weston knew that he had to increase his lead fast, so that he could circle back and hunt for the time-door before the giant learned to coordinate. It was burning noon. Time seemed to be playing queer tricks. He let Serena down after a while, but he kept tight hold of her wrist. She had a sort of homing instinct, though the fires were out of sight by now.

After a few hours Weston lost his bearings completely. The world of that time was a park. Nothing changed. The whole world, indeed, seemed to be a highly developed machine for the support of the human race. . . .

When he was hungry, the moss fed Weston. When he was thirsty, pools opened. And in all that desperate flight, with the giant looming sometimes on the horizon and sometimes out of sight beyond it, there was nothing except the undulating mossy hills, and one other thing.

The Golden Light. Weston hadn't understood when he saw it. That happened later, when he was exhausted. Serena was untiring. He tried to talk to her. She answered when he touched the right chord and she had a response to give, but it didn't mean anything. But Weston couldn't put away the thought that if he could only make her understand, force her to comprehend the fantastic motivations behind her life, she might awaken.

THE giant was gaining. He wasn't half a mile behind them now. The sun was dropping. It would be dark soon.

There's no twilight here, Weston thought. Only burning daylight, and then the darkness. As it will be for man!

He talked to her.

"Serena. Listen to me. The Knowledge told me—listen! I know you're not—not intelligent; you have a different instinct. But if I could make you realize that—"

They plodded on. He kept glancing at her placid, lovely face.

"Call it tropism, Serena. Tropism that makes plants turn toward light. Or taxis, that guides insects. Insects have a perfect life, in a way. Instinct tells them exactly what to do and they can no more resist doing it than they can help being alive. A stimulus registers on them, and they act as their taxis commands. Listen!

"That's what's happened to the human race—your race! You haven't any powers of reason. You can respond only to certain

stimuli, like automata. Like The Knowledge itself. If I ask you questions you're geared to answer, you'll answer. Ask you anything else, and you won't even hear. Do you hear me now?"

It was growing dark. There was no moon. But far away was a golden glimmer of light on the horizon. Weston turned toward it. He didn't know, in the darkness, how close the giant was. But he could still make speed, for there were no obstacles and the moss was resilient and level. The golden shining brightened as they neared it. But Weston was exhausted. His mind went around in circles. After a time he began to talk to Serena again.

"You're not human. You lost that a million years ago. Absolute perfection—yes, your race achieved that, at the cost of humanity. Now you don't need machines. A long while ago you learned to harness natural dynamics, the force of growing things. And eventually the technique of mastering that power was born in you. You have it, don't you, Serena? I've seen you use it.

"So you didn't need reason. You got yourself a paradise and tailored your very minds to fit. So the answer was stagnation—mindlessness—tropism. Serena, don't you see the race wasn't ready yet for perfection? It still had a job to do. I don't know what. But it must have had. Idleness in paradise must have seemed horrible to your race, or they wouldn't have had to sacrifice intelligence to endure it."

He glanced again at her calm, half-visible profile. No response stirred there.

"You've got to understand. Somebody understood once, a long time ago. The Knowledge told me that. A great scientist. I suppose psychological biogenetics would have been his field. He saw that the race was accepting paradise before it had earned it, and so—well, he knew the race was doomed, but he hoped that the search might go on.

"He set them a job to do. He gave them the job of creating life. That's your tropism—that's your taxis. Your own race is lost and damned, Serena, but you're trying, by instinct now, to create a new race, a race that will carry on where your forefathers lost the way. With natural dynamics, and those life-fires you kindle, trying for a thousand years to create a greater race than your own—driven by the impulse born in you, Serena.

"Ants or bees. Alien. I can't understand

ou or your race or your world. I have only—intelligence!

"But that's the answer, Serena. I can't let you commit suicide. You'd go back to the fires and walk right into them, like a moth. The tropism would make you do that. Serena, Serena!"

He had been walking in a dream. And suddenly he saw that the Light rose directly before them.

It was a tall flower of cool pale flame, swaying a little. The shower of gold that came to Danae—it was like that. There were ruins embedded in the moss, as though once a temple had risen around the Light. Perhaps it had once been worshipped. It was tall as a man, and it glimmered, and seemed to wait.

Weston was ineffably tired. But he knew that a last struggle still lay before him. Or, rather, behind him, for heavy footsteps came out of the dark, and the resilient ground quivered a little, and out of the blackness strode the newest life-form the last men had created.

Weston pushed Serena behind him. He stood there, waiting, watching the reflections of the Light glimmer on the magnificent pallid body of the giant as he marched forward.

And—marched past!

IGNORING Weston and Serena, the giant moved forward toward the light!

Weston stood gaping. The monster never glanced aside. He was trying to touch the light with big, uncertain hands that seemed to strike an invisible barrier between him and the flame. He kept on trying futilely—ignoring Weston.

Serena slipped free and went calmly away in the dark, following her homing instinct toward the faraway fires. Weston was dizzy with fatigue. He went after her, watching the giant across his shoulder. The Titan was staring at the light, hypnotized, trying in vain to touch it with his hands.

He did not follow.

Weston never remembered much about the trip back. He must have slept on his feet, stumbling toward the moss, holding Serena's wrist as she led the way toward the fires that waited for her. They went slowly; her patience was fathomless and somehow terrible.

Late in the morning they reached the blue buildings again. The men looked up from their work briefly, and then bent again over

the figure they were moulding. "Almost ready now," Serena murmured. "No time was lost, after all. Soon—soon, perhaps!"

Then nightmare. Weston had to exert constant effort simply to keep his fingers locked around her wrist. He was looking for the time-gate. But his eyes kept closing and sleep washed up exactly like a tide rising, so that twice he snapped awake in time to see Serena walking toward the fires. He caught her scarcely in time.

Perhaps the gateway had moved with the time-flow. Perhaps he had simply forgotten its exact location. He searched and searched, in a dull, grinding interval of aching exhaustion, all through that terrible noontide of a race that would soon move on into its night, searching for its own destruction.

A dreamy sort of horror grew slowly upon him. The men seemed to be working so fast. Their blind tropism, their ancient, inbred instinct drove them. Weston stumbled on around the little pool, dragging Serena—

Then he was in the Versailles garden, by the pool, again, and a plane was droning overhead, and he still gripped Serena's wrist. He had brought her back through time, from noon to morning.

And that was his damnation—and hers.

* * * * *

South of Suva a coral island stands in the empty seas. Once there were natives there, Kanaka boys, but not now. There is a walled garden, and a deserted house; already pandanus grows wild, and the lichen and the swift tropical vines are beginning to devour them both. And there is something else, eternal and alien, that stands on the island untouched by the hurricanes that roar yearly along the trades and loose their fury on the islet.

The skippers of a few trading ships know that John Weston once lived there. They used to bring supplies, food and equipment and the luxuries a wealthy man need not be deprived of, even though he lives in the middle of the South Pacific. But no ships anchor there any more. As for the Kanaka boys, no one pays attention to their drunken stories. And they will not go back. They are afraid.

Weston lived on the island for nearly thirty years.

He was in love with Serena, you see. She was the ultimate perfection of the human race. As man strives for perfection, so in his own way he wanted Serena—to keep her

with him always—to bask in that shining, vital glow she radiated.

He couldn't understand her. But he couldn't stay away from her. She had never known grief or indecision or despair. So, after Versailles, after he had found that nothing else was possible, he took her to the Pacific island. He built her a walled garden there. She knew how to make the moss and the trees grow; the power to control natural dynamics was inbred in her race. She kindled her life-fires—and she began to work again.

The man lived on the island, too—watching Serena, worshipping her. Watching her create life and destroy it. Year after year he watched her follow that single taxis. She answered when Weston asked the right questions, but there was never any real contact. The gulf between them was too vast. She was perfection—and all he had was intelligence.

SOMETIMES he thought of taking her back to her own world. But he knew he could never do that. The two men would be waiting, and the fires would be waiting, and Serena would be ready to sacrifice herself to create the new race that would supersede mankind. . . .

Nearly thirty years. She did not seem to age. But Weston did. And then, one day, the end came at last.

He unlocked the door of the garden and went in, calling Serena's name. She had always answered before. But this time only silence greeted him.

He went down the winding path, and at its end he saw the flame, burning like an unearthly flower, tall, pale gold, swaying in the uprush of its own fire. It lived and burned and waited. He knew, then, instantly. Serena was still in the garden. But she was beyond answering.

It was success. It was what Serena and her race had been trying, for so long, to achieve. The new race. She, herself, had possessed whatever quality it was that had been required—she had, at last, found the right formula for the new life. She was the life. Or part of it.

Weston stood there, watching. He remembered what he had seen so far away in the future, burning in that wilderness of mossy hills. This, then, was why the giant had forgotten Serena and turned to the Golden Light. The Golden Light was Serena. It was the new race. She had used herself to create the next step beyond mankind. She had brought it into being a million years before she, herself, had been born!

And all through those eons, her people were spending their energies striving to accomplish what Serena had already achieved far in their past!

There had been a barrier guarding the light—in the future. But now? Had it developed yet?

In green twilight the flame burned on. It was new. This was the first night it would illumine—but the mind could not grasp the concept of the countless nights to come through which it would burn. Millions upon millions upon millions of nights and days, while the seas shrank and the tides of time rolled relentlessly over the planet. While mankind found paradise and sank into the long, terribly perfect noontide of the human race.

And after that, somehow, sometime, it must waken, for it was the first of its super-human, alien race. After man it would come. And part of it was Serena.

"Serena!" Weston breathed.

And then he was moving forward, his face bright, his eyes eager, into the alien heart of that living fire.

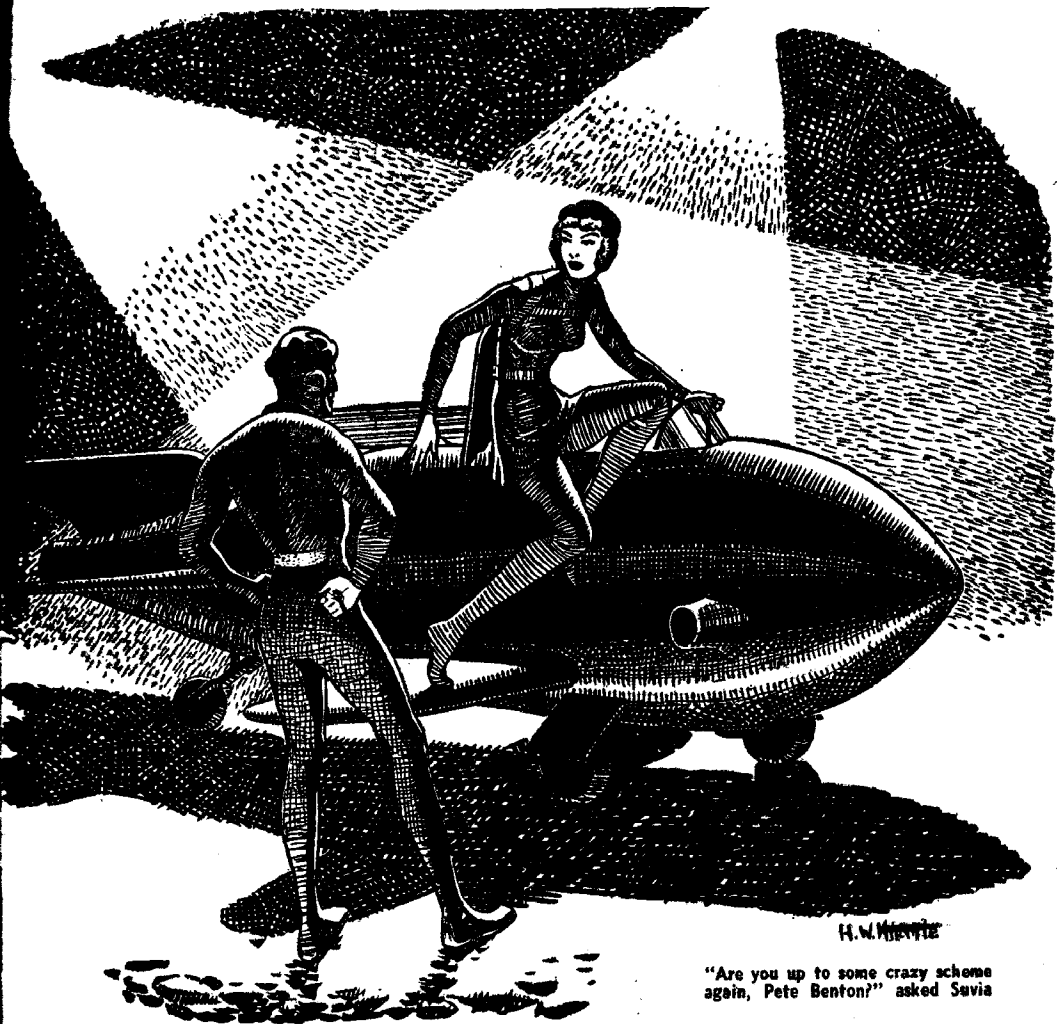
The garden was empty, except for the tremendous flame. Its shining enigma glowed through the night. No man would ever know the secret of its power or the nature of the alien life that burned in its heart, dormant, sleeping—not yet ready to waken and inherit the earth, to waken from man's eternal, doomed noon into the bright morning of its unimaginable future.

The garden lay silent. No human foot moved through it. Only the golden fire burned like a flower against the darkness.

Now there would be a million years to wait.

IN THE NEXT ISSUE

Outstanding Science Fiction by LESLIE CHARTERIS, JAMES MacCREIGH, ROBERT A. HEINLEIN, MANLY WADE WELLMAN, HENRY KUTTNER, MARGARET ST. CLAIR and Others!



"Are you up to some crazy scheme again, Pete Benton?" asked Savia

THE JET JOCKEYS

By R. W. STOCKHEKER

An ace speedster of the galaxy rocket circuit throws away his chance at first place to save a racing mate!

THERE was something in the way that little Venusian fire dancer looked at me when I passed her on my way down the ramp to the rocket racks to get Savia Jalmin's shiny Space Midget that started me thinking.

This jet burn I picked up the time I pin-wheeled into the force fence on the big Zeta rocket track on Mars hadn't exactly left me looking like a glamor flash from the tele-

color screens. Only up until now I had never let that worry me because the way I figure it you don't race rockets with your face anyhow.

The way I figure it, it's nerve not profile that slams the big sizzle sticks around the magnet bends.

Still, when I caught the look in that little space dame's eyes—as though I'm some kind of slime mutant fresh out of a spore bog—

I got to wondering. I remembered a dozen other girls I had met suddenly in a dozen other dark corners.

I remembered why from one end of the Great Galaxy Circuit to the other I'm billed as "Death" Benton, and it's not because of the chances I take. And I remembered, finally, that in the last two years I've been making about as much headway with Suvia Jalmin as a hay-burning burro on a star lane.

All the rest of the way down to the racks I thought it over, and it always came out the same. I could see that what I needed was a quick trip down to that new Venusian super-clinic in the Interplanetary Settlement for a complete remodeling job. By the time I got back up to the starting platform with the Space Midget I had a plan for getting that remodeling job done, all worked out, neat and pretty, in my skull.

SUVIA was waiting in front of the grandstand when I rolled her rocket off the pneumatic lift. The kid does a stunt act in between races that is considered tops in the Galaxy circuit. The Samson arcs, focusing on her, hit her curly, spun-honey hair, setting up a glow that put a gleaming nimbus around her crash helmet.

Suvia is one quarter Martian, a combination that makes her twice as gorgeous as anything else in curves on either Mars or Earth. Up in the stands the crowd was giving the usual big hand of appreciation at her appearance. Even the track robots were maybe doing a bit of applauding, too.

In her translucent sennilite suit with the airplast gliding wings folded at her sides, Suvia made a picture most men would joyfully have missed a parade of comets to see.

A hundred times I've told myself it's sheer blasphemy for such a luscious bit of femininity to be risking her neck like this, day after day. Yet tough stunting is in the kid's blood. Ever since her grandfather rode the first space ship to Mars there has been a Jalmin somewhere, risking life and limb just for the devil of it.

When she picked up the sound of her rocket on the platform, she turned what was left of her audience smile my way. For a moment I almost forgot the crash scars. Only not quite.

"Right on the dot, Pete," she said. "Nice crowd up there, isn't it?"

I boosted her up into the cockpit, making

the usual little show of adjusting this and that to help build up suspense.

"Yes, it's a nice crowd," I said. "And every mother's one of them would be thrilled to pieces if something nice and fatal happened to you, so be careful. You going to watch the finals?"

Suvia had her hand on the cowl plate lever, ready to close the top plate, but she hesitated, bearing down on me with both eyes.

"I always watch the finals," she cried. "You know that, Pete Benton. Why? Are you up to some crazy scheme again?"

For a moment I had half a notion to tell her about the fire dancer and my plan for letting a plastic doc go to work on the scar tissue on my face. But I braked on the idea fast.

"Scheme, baby?" I said innocently. "All I was getting at is there's going to be some high-grade blasting out there in a little while. I've got an idea Skid is just about right to take the big race today."

I'm talking about my partner, Skid Burman, of course. We've been knocking around the circuits together ever since he won the finals two years ago here at Astrola with a rocket we built in the old Benton tunglite plant out of shoestrings and baling wire.

At the mention of Skid's name, however, I could see the kid's jaw line harden, freezing out all the dimple. Her husky little voice picked up an edge.

"I wasn't going to mention it, Pete," she said, "but now that you've brought the subject up, that isn't exactly the way the boys in the bull ring seem to have it doped out."

Well, that's the way it is. A rider takes a couple of fourths or worse and right away he's all figured out as through, washed up and ready for the cargo routes.

"Skid's all right," I told her. "Is that any reason to think, just because he's blasted a few slow races recently, that he's running out of nerve, like a jelly-armed Qxeas from Outer Space?"

"Could be, Pete. Slamming into the force fence isn't any picnic for anybody. You shouldn't have to be told that. And plenty of top riders have gone soft after taking the kind of smash-up Skid took last year on the Alpha Centauri track. It—it—look, Pete, why don't you play it smart for once and get out of this racket while you can. Rocket racing is nothing but death and danger anyway. Make this your last race."

"My last race!" I yelled. "And the Big Blast only a few months off, too. You don't know what you're saying, baby. Why Skid and I are practically a cinch to take it."

HER eyes flared like a solar corona. "The Big Blast!" She bit the words out like a curse. "That's all every rocket man from here to Jupiter lives and breathes for—a chance to shoot space in a racing tube so tight it ought not to be allowed outside the atmosphere. You—you make me sick, Pete Benton."

She slammed her cowl plate shut, almost catching my fingers, and signaled for the boom to swing her up into one of the starting tubes.

I waited just long enough to hear her boosters start to purr; then I beat it for the rocket pits. Watching the kid come sailing down on those big, glistening wings through a pattern of beamed high-voltage flashes is more than I can take. One miscalculation in that heart-slamming maneuver with death and you couldn't find the pieces with an electronic microscope. I beat it and I beat it fast.

Down in the pits I found a tight spun circle of rocket riders, mechs, and rack attendants gathered around a sleek, fluorescent blue rocket.

The presence of that circle caused me to uncork a hustle that jolted every merylite pin in my stiff leg. Nothing but trouble, I knew, would bring a gang like that together just before a big race, and I had a good idea of just what kind of trouble was stirring.

Elbowing in between a pair of pot-bellied Martian mechs, I worked toward the center of the circle. Just as I expected, two guys in fabraglas jumpers were facing each other like a pair of gamecocks.

About their faces there was a sharp bitterness that gave me a pretty good indication of just how tense the situation was, because ordinarily both Skid Burman and Steve Ranklin are two of the easiest going riders on the circuit.

The circle tightened behind me. For weeks this blow-off had been building up to explosive proportions. Even the video papers had got hold of it. It made good flash, the kind of stuff the public laps up. You know how it goes: "What two rocket riders are fighting over what blond telecutie from the Coast Studios?" It was drama and romance and violence all mixed up with the death

defying blasts of the big tubes.

I shoved my way in between the two. "Take it easy, Skid," I pleaded. "This is no time to pick a scrap. If you guys got anything to settle, wait until after the race."

Steve's blond head jerked around. "You keep out of this, Pete," he said harshly. "The time to settle this is right now, before something like that Meton track thing happens again."

Well, I thought, that does it. The Meton crack-up wasn't something you could discuss calmly, coolly, and without getting blood all over the place.

Skid's voice thinned out to a razor edge. "Don't say that, Steve," he said. "You know that Meton crash was an accident. When I take a magnet bend I don't make room for any driver—not even Pete."

"And I say that 'accident' was a deliberate attempt to slam me into the force fence. The only accident part about it was that you landed there yourself."

I braced for trouble. Only it never came. Jet Markham, First Zone Officer for the Astrola track, picked that moment to push his way through the crowd. He took one look at the two squaring off there in the ring, and cocked a finger as solid as a mooring mast.

"Break it up, boys," he snapped. "Any scrapping here now, and neither one of you will ever race in this park again."

That calm, heavy voice was like an ultrasonic fire extinguisher. I could see the red seep out of Steve's face. He hesitated, his long, bony hands curling and uncurling at his sides. Then, with an abrupt gesture of acquiescence he turned and crossed over to his big Space Ace, and climbed slowly in.

I grabbed Skid's arm, tugging him in the opposite direction.

"Come on, Skid," I said. "We got a race to ride."

He gave me a crooked grin. "I know, Pete. Dames certainly play the devil with racing, don't they?"

That reminded me of the little fire dancer and why I had been hunting Skid.

"Look, Skid," I said. "We're pretty low on cash right now, aren't we?"

"That's right, Pete. If it weren't for you, we wouldn't even be eating."

"Then even if you take a first today, if one of us suddenly needed a large hunk of cash, there wouldn't be anything left over that isn't already earmarked for the Big Blast, would there?"

He gave me a sharp glance. "Make it plainer, Pete," he said.

I TOLD him about my brain-wave and what brought it on.

"What I mean," I went on, "is that if I decided to have this face of mine fixed up, we'd have to find a new source of income to pay for it, wouldn't we?"

The idea seemed to stagger him. "Get your face fixed up!" he yelled. "Are you crazy, Pete? Why those scars are worth good hard cash to you. They're all that keeps you racing the big cylinders today. You know that, Pete."

I guess I did. You see, I ride for the Galaxy circuit under a queer set-up. What I mean is that the circuit pays me a straight salary just to put a little more color into a race.

Instead of setting out to win, I'm hired to ride the magnet bends, making hair-brained skids and turns, the kind of trick stuff that looks good to the stands, but kills real speed. And the only reason I get by with most of the stuff I pull is because I've built up a reputation on this tough mug of mine.

I'm considered to be the sort of guy who would rather wreck his rocket than give an inch to another rider.

"I know, Skid," I said. "But I don't figure to go on racing rockets forever. Someday I'm bound to meet up with a nice girl, and—well, what is she going to think of this face of mine?"

Skid's finger traced a pattern along the sleek side of his rocket.

"Look, Pete," he said. "In the first place, there's nothing really wrong with your face. Believe me, those scars give you the kind of tough charm most women go for. And in the second place, it wouldn't do you any good to have your face fixed, Pete, because you're just the sort of guy who would get it banged up all over again, if just from falling over the nearest baby carriage."

Maybe I would have gone for that kind of talk if it hadn't been for that little plate-eyed space kid. But now I had my mind made up.

"I'm serious about this, Skid," I insisted. "I'm going to have this pan fixed up, if it's the last thing I ever do. And it looks like the only way I can get the cash is to go out there and place in the Double Century this afternoon."

Skid's teeth made a little clicking sound.

"Now I know you are crazy, Pete," he said. "I'll admit you're one of the greatest trick riders who ever put a rocket around a tube. But the moment you set out to race, you go completely haywire. You know that, too."

I did know it. It's a funny thing. Just riding around the tube to put on a show, the way I'm paid to do, I'm like a robot. Up in my head there's a little timing device that tells me just how fast, down to the last split second, a rocket can take a magnet bend.

I can work out to the last fraction of an ounce the carom I can afford to take off the force fence or another rocket without wrecking. But the moment I go out to win, the tube guards start hanging out the crash warning again.

Still, there was the look in that little space dancer's eyes.

"This time it's going to be different, Skid," I said. "That last crash at Xovia was a lesson to me."

Skid gave up. He knew, as well as I, that the only thing I learned from the Xovia smash-up was that the nurses on Venus are tough kids to work into a clinch. But he didn't try to argue any longer. All he did was give me a shove toward my heavy, scarlet-finned cylinder.

"If that's the way it is, Pete," he said, "I'm for you to the limit."

Up in the stands I caught the usual half-hysterical burst of applause that always signals the finish of Suvia's act. With a sigh of relief I eased myself down into the cockpit of my rocket. A moment later the metallic, robot-toned voice of the tube starter crackled from the loudspeaker, announcing the lineup for the Double Century.

At the finish of this announcement, the boom swung down to lift the first of the big racing rockets into the starting racks. Its appearance brought an instant responsive roar from the stands. That sound beat down into the pits with all the solidness of a slab from Sirius.

A quarter million voices, hiked to scream-pitch by excitement, is impressive beyond description, and Astrola, with its vast network of vacuum tube trains, often draws crowds of that size.

FOUR years ago, when Maza Boruu first introduced this brand new sport of rocket racing on Mars, nobody would have dreamed he was turning loose a sensation that

would sweep the planetary system like a Jupiterian fire storm. But a year after the first rocket took the magnet bends at Zonuu, you couldn't have counted the tracks on a family of centipedes.

On Earth, especially, the response was tremendous. With the perfection of the Celetron robot, and its introduction into industry, time was beginning to become an item of increasingly boring magnitude to the majority of the populace. The result was that this new and exceedingly dangerous sport was pounced on by the people of Earth with all the gusto of a hungry carnivore on a juicy side of caveman.

Even so, jaded nerves or not, there's nothing else this side of the fourth dimension that for sheer thrill can touch rocket racing. The spectacle of twenty big torpedoes thundering along before the ground-quivering blast impact of their jets, unleashing power better suited to the vastness of space than to a race track, is soul shaking. That riotous kaleidoscope of shifting, glow-colored cylinders would move a Cela pulp man.

Even after years of racing, the mere anticipation of the coming ride was enough to start my pulse to pounding. In an effort to counteract this stirring excitement, I tried to concentrate on the track.

Since the last time Skid and I had jammed around the big elliptic here at Astrola, the place had undergone a thorough remodelling. The old stands had been dismantled and replaced with new ones fabricated of jadette, that dark green bubble plastic recently developed in the Fabraglas Laboratories. The design of these stands followed closely the weird atomic style of the architecture of Mars.

The infield of the track, except for the video screen that brought the fifty-mile track within constant view of the stands and the huge Zoduu nuclear pile out in the center, was laid out in geometrically patterned beds of Vassong's vibrating orchid mutations.

Now, disturbed by the crowd noise, these orchids kept up a constant quivering, forming swiftly changing color combinations. A heavy perfume, as titillating as wine, rose from these blooms.

The track itself was the usual elliptical super-panta magnet, with arches of tennilite spaced around it at quarter-mile intervals. These tennilite arches, when under full charge from the Zoduu nuclear pile, builds up the tubular force fence which guards the

stands, and the force field which holds the terrific speed of the rockets under control.

This setup of magnet and arches was the same combination as that first used by Boruu on Mars.

The voice of the announcer, calling Sirius 50 into position, jerked my attention back from the field equipment. Sirius 50 belongs to little Agu Ziggy, one of the original Martian riders from that first race at Zonuu, and I knew I was starting in the tube next to Ziggy.

WITH Sirius 50 on the move, I stooped down to get my polarized Beta-X visor out of its compartment. My helmet, when I straightened out, missed Suvia's blond head by inches. She had reached over the cockpit rim and was pulling back one of my hinged earphone flaps.

"Pete," she yelled in my ear, "what happened down in the rocket pits between Skid and Steve?"

The bad side of my face was covered by the crash helmet, so I felt pretty good.

"Nothing important, baby," I told her. "I doubt if it disturbs the Andromeda Nebula a bit."

She gave me a look you could have fried an atom with, and climbed up a step higher.

"Those little fire dancers Mil Gaines brought over from the Paris races are down in the dressing rooms, squeaking like a caveful of bats about a fight, Pete."

"Pay them no attention, baby," I told her. "Those dizzy little space dames are always squeaking like a caveful of bats. I remember getting drunk in a joint up on Venus where—"

She reached down and rattled my earphone jack, nearly blasting my eardrums loose.

"This is serious, Pete," she wailed. "Answer me."

"I am answering you," I said. "I'm telling you there wasn't any fight. Jet Markham cooled them off."

"But how worked up did Steve get? Would he try to do anything desperate in the race—like trying to wreck Skid's rocket?"

"Hold it, kid," I said. "Just what did those little spacies say?"

Before she could answer, one of the little Celetron robots came clicking up and tried to push the sliding cockpit cover shut under Suvia's nose. She brushed it off with a sweep of her arm, causing it to whir plaintively.

That's one thing about women, even Suvia, they've no respect for machinery. Those robots are precision instruments, too.

"It was that little dancer Azi Maruu runs around with," she said then, "who was doing most of the talking. I gathered Maruu has been needling Steve all week until he's reached a stage where he'll just about go out there and try to wreck Skid's rocket if it kills them both. The little dancer was spilling all this dope because she wanted the troupe to bet everything on Maruu to cop the 'Double.'"

That made sense in pieces big enough to start a meteor. Shades of little galaxies, I thought bitterly, the one day I decide to go out and drive a race, a thing like this has to happen.

"Guys have tried to wreck Skid before, baby," I said, trying to keep the trouble out of my voice. "I wouldn't give it another thought. Now you'd better let Percy here get those boom magnets fixed before he blows a tube."

My big, scarlet-finned Comet slid into the starting tube with hardly a jolt. From the corner of my eye I could see the familiar golden bulk of Sirius 50, its outlines somewhat blurred by the semi-transparent walls of the starting tube. On the other side, in the pole position, a gleaming white Tri Planet-built Star Car was being swung into place. The driver of the Star Car was a newcomer to the circuit—a nice looking blond-headed kid who brought his rocket up from Antarctica for this race.

The white Star Car was the last rocket to go into the tubes and it filled out the top tier. There are four of these tiers with five tubes to the tier here at Astrola, as at most of the newer tracks. The favorites usually draw the lower tier, where the pull of the force field is tougher and the going slower. This makes for closer and more exciting races since the rockets scramble for the better positions on the upper levels.

OUTSIDE my rocket I noticed the guideline color bands on the force fence deepen suddenly, almost obscuring the stands. Although these bands were invisible to the crowd, they stood out sharply in my specially ground lenses, tracing the dome-shaped path of the force fence. This force fence, despite its apparent fragility, can stop a churning rocket on a pinpoint. And it has stopped plenty of them, too. Not even radar

controlled cushioning jets and the strong repellent force the fence exerted can keep a rocket from going into it.

When the color bands steadied to racing ready, I felt for the accelerator paddles, jabbing them all the way home. With the paddles completely depressed, the forward propulsion jets were all set to fire simultaneously when the starter threw the radio-controlled master switch in the judges' stand.

On the instrument board in front of me the keys that operated trimming jets and repulsion magnets shone with a dull green incandescence.

The ten-second warning signal let go with a sharp buzz in my earphones. I braced myself, pulling my neck down as far as it would go. And then suddenly my stomach was trying to push its way through the back of my spine and into the contacts of my anti-black-out belt. In one awful surge my big sizzle buggy kicked itself out of the starting tube.

That first magnet bend on the big elliptic is always the worst. Anything can happen when twenty bunched up rockets go into that curve still fighting the blasting surge of their starting momentum.

Automatically I set my repulsion magnets and increased the starboard trimming jets to ride the fence around. It's the only safe way to take that first tight corner. With the magnets of one rocket playing against the next and the last ship cushioned against the fence, you're in a groove as neat and cozy as a baby in a crib.

It's the safe way, but it drags off speed in a hurry, and now and then you run into a rider with just the combination of iron nerves and ivory skull that gives him the idea he can get around on skill and jets alone. This time it was the kid in the white rocket. Maybe he saw himself winning his first try in the big time, just like the guy in the book.

Maybe his girl was parked somewhere up there in the stands, popping off with every quivering inch of her young chassis, and he wanted to look good. Or maybe it was just that the brain-drugging ecstasy of super-speed got him. In any case, he went into that tough corner as though he had half of space on either side of him, trying to ride his racing jets around.

He couldn't make it and I knew he couldn't. But, so help me, when he started that inevitable skid toward me I braked and gave way. Instead of holding steady and making him swallow his speed, the way I had learned

to do in years of racing and months of knitting my bones in the hospitals of five planets and a couple of asteroids, I gave him room. And right there I knew I'd finally learned something. For the first time in years of riding I was doing the safe thing, and I knew, then, that I was all set to ride a race.

My giving way must have crossed the kid up. Maybe he didn't figure that a guy with a string of crashes so long it would scare a light-year would make room for a young squirt fresh out of the country fair circuits, and he was planning on crowding me just enough to swing him around the bend. Now, in a desperate effort to stop his skid, he cut his port jets and blasted all out with the starboard side.

This sudden application of power swung him back toward the fence, and he had to reverse propulsions to keep from crashing. In a moment he was bouncing back and forth, vibrating like a tuning fork and losing speed so fast it looked as though he were standing still.

I swung over into the pole position. Ziggy's gold cylinder followed right along, drawing a stream of sparks as he caromed off my ectovent. It was the kind of trick stuff Ziggy likes—slashing, skidding, grandstand riding that congealed the customer's blood. Ordinarily I would have welcomed this chance for a little fancy riding, but now I blasted Ziggy to hades and back.

IN THE low tier I could see Skid's blue rocket jamming along half a length out in front. How he managed to pull a lead from that bunch of wolves he was riding with must have been part miracle. Next to him I had a brief glimpse of the nose of Maruu's ship. On the outside, Steve's big stick was hugging the force fence.

I settled down to shake off Ziggy, pouring out all the speed I could get from my multiple jets. Slowly the laps were building up. Bend after bend came slamming around, each one eating up a little more energy and nerve, making it just a little harder to take the break that would finally come.

Phil March, driving a slim, pale green rocket, made that break. He found a hole between Ziggy and Chuck Larson and came blasting up from the third level to fill it. That stirred up things below. Through my floor plates I caught a glimpse of two rockets shooting for the place the pale green rocket had just left.

They hit that hole at the same time, both going too fast to avoid a crash. Sparks lanced out from behind as they came together. They careened toward the force fence, and I saw a gentle ripple run along the color bands. A high, pulsating whine ripped into my earphones.

For a fraction of a second those two rockets appeared to hang motionless, nose up, back there in the tube. Then a sheet of flame lashed out, enveloping them both. I felt the hair beneath my helmet crawl, the way it always does when a bad crash turns up.

I counted to five fast before my radio picked up the warning bell from the super-sonic fire extinguisher. A moment later the starter's voice cracked out.

"All clear on levels one, two, and three," he gave us the go ahead. "On four, keep to the outside fence."

That gave us racing room, and the faster rockets were beginning to come up now in bellowing roars, spraying heat and taking their openings where they found them. With March's green rocket beside him, Ziggy left off crowding me and went to work on him, pulling every trick he knew out of that screwy brain of his. For the first time in over a hundred races I found myself riding out in front, and that old devil speed got me.

We high-blasted into the grandstand stretch, the racing jets churning the big torpedoes toward the fence and the cushioning jets slamming them back again. And with that crowd out there keyed up to hysteria pitch, some of the excitement appeared to seep through to Ziggy. All at once he seemed to go completely haywire.

It's funny how a thing like that can catch you in a race, but it can. You go along, driving for all you've got, and all at once your mind whips back to something some other rider did in another race. You start hating that guy with every fiber in your body. You rake him with the hottest coals in Hades, and that's not enough. You pull him apart and slam him in the face with the pieces. You're beyond all logic and all reason for the moment.

With the feel of the grandstand in him, it was that way with Ziggy. Without any warning he started to swarm all over the green rocket. Surprised by this outburst, March tried to go up where there wasn't any up.

I could see the red glow flashing in his cockpit as the radar sent out its fence warn-

ing. Instantly, to keep from crashing, March braked, at the same time giving out with his full jet-cushioning power. That shoved him back and down, and he kept right on diving to the bottom tier to miss the jet blasts of the lower rockets.

Maruu came churning up from below, trying for the hole that Ziggy had left and was closing it up rapidly. It was suicidal driving, even for Maruu. Maybe the little Martian was expecting Ziggy to give him room. Or maybe he was so set on getting out between Skid and Steve, so they could get on with their private feud, that he tossed all caution to the winds.

With anybody but Maruu and Ziggy it would have been quick curtains right there and then. As it was, the crowd saw action that would have made the inside of a working atom smasher look like a nursery hotted up in that tube. In a moment the track was a maelstrom of skittering rockets going into fantastic little dances as the drivers fought desperately for control. The scene was all set for searing, brain-numbing disaster.

And then, suddenly, it was over. Somehow that jam uncorked itself. One instant I was gritting my teeth for the first searing pain of snapping bones, and reaching for my crash button, and the next instant I was riding all alone on the top level, with just Skid and Steve packed together a couple of rocket lengths behind, and the rest of the field streaming back toward the bend.

That knocked the last vestige of caution out of me. I really set sail.

NOW it was not the kid in the big white Space Star who was seeing himself winning the Astrola. It was not the kid in the white rocket, with one or two races under his belt and the crowd noise still in his brain and dreaming of a girl in the stands. It was a guy with a face like a gargoyle, a guy with a hundred wrecks on a hundred different tracks behind him.

Just like that I forgot the long months spent in plastic braces, learning the hard way how to ride the sizzle sticks. I forgot the bitter pain and the midnight horror of waking up screaming, fighting the controls of some sluing nightmare monster. I forgot I was the only guy who ever fired his rocket off the force fence and lived to tell about it, and I went into the curve like a meteor diving into the sun.

It must have looked good from the stands.

It must have picked that mass of screaming rocket fans up in one hysterical wave. But it couldn't last. For almost a lap, so hopped up was I, I managed to stay out in front of Skid and Steve and the trailing field. Then they began to inch their way up, picking up pace, high-blasting into the corners and out again, the two blackened hulks of the burned-out rockets marking the laps like death-stones.

They crept up and went out in front. They took a corner locked together, sliding until they almost skimmed the outside fence. They came swinging back, Skid's blue rocket skidding dangerously close in front of me, his blast driving me to the side.

And then I began to get it. I began to understand that headlong pace, and the shock of understanding drove all the exhilaration of speed out of me. Those two maniacs weren't riding a race, they were having themselves a duel—fighting it out for a girl there at the top of the tube. I hung on grimly, my eyes almost popping from my head, waiting for the crackup that this killing speed was bound to bring.

It came with millisecond suddenness. I saw Steve claw his big space-black rocket over the way a marsh-grafk pulls over just before he charges. The tail of his rocket whipped once with a sort of challenging motion. Then he gunned straight for Skid.

I braked, momentum driving my harness deep into my ribs. Through the screen of my bow jets I caught a blurred impression of streaking color. Out of that blur Skid's ship came plunging, starting a horrible side slip toward the fence. Just before it hit, it straightened out, its crumpled jets somehow managing to compensate for the slide.

And out of that blur Steve's Space Ace also came hurtling. It pinwheeled end over end, spraying out sparks like a crazy lightning bug. Only it didn't straighten out. It slammed into the force fence, drawing a red hot streak from bow to stern. It raised a screech that must have drowned out the single horrified roar from the stands as it nosed along the fence, its starboard jet out of commission, its port firing at full blast and holding it to the fence with relentless pressure. And inside his rocket Steve was slowly frying to death.

In a thousand nightmares I had seen that thing happen over and over again until it came to have a terrible familiarity about it. I didn't even have to think—there wouldn't

have been time for that. When I acted it was in a precision pattern that had been acid-etched in my brain one afternoon on the force fence at Zeta park. Just like Captain Space in the video color cartoon I set sail for the ventro-fin of Steve's smoking cylinder. The shearing nose of my rocket cut through it and into the blasting core of the jet behind it.

With that kind of leverage something had to give, and I reached for the crash button just as blackness hit me. . . .

AN AIRY green room, filled with the heady odor of Moon orchids, came floating up out of that blackness. The combination was old stuff to me. I didn't even have to feel for the bandages or see Skid's big grin just beyond the fever chart to know where I was. Only this time one thing was not exactly the same. This time Suvia was standing beside Skid. She worked up a shaky sort of smile for me.

Skid came trotting around the side of the bed.

"We're all set for the Big Blast, pal," he said happily. "Even with our tubes curled we managed to win the 'Double.'"

Well, it's always nice to win.

"How's Steve?" I asked.

"A little scorched around the edges," Skid said. "But he'll pull through. You pried him off the fence in the nick of time. That was nice work, Pete."

All of a sudden I began to feel sorry for Steve. Maybe Astrola was kind of important to him too. Maybe winning it was also the difference to him between a girl with the

sun in her hair and a glow that runs soft as moonlight in her eyes and an ache as big as the Alisco crater.

Nothing as sentimental as that could have shown on my mug, but Suvia seemed to get the idea anyway.

"Judy Carlyle is with Steve now, Pete," she told me. "She took the first tube in from the Coast when she heard Steve was hurt. They're planning on getting married as soon as he's well again. Steve is going to give up racing."

I shot a quick glance at Skid, but the grin on his face was undisturbed, and I knew by this that losing or winning a race was more important to Skid than losing or winning a girl.

Now that everything was all right with both Steve and Skid, I began to feel sorry all for myself. Maybe I tried to tell myself, I can still fix up my crate and dig out a second or third at Canyon Track. Maybe, with a little luck and a heavy foot on the corners, I can still get enough cash for my face.

That couldn't have shown, either, but Suvia got it. The next instant she was on her knees beside my bed, her head buried on my pillow.

"You big lug," she said in my ear, "do you think I care about a few scars—the kind of scars you get from taking the fence at Zeta rather than wreck another rocket—the kind of scars you pick up throwing away a first at Astrola to try to save another rider from the fence?"

Just like that I forgot the look in that little Venusian fire dancer's eyes. All those space kids are screwballs anyway.

"You're Part of My Dream, Brother, and You Don't Even Have a Name! I Never Saw You Before!"

THAT was the strange pronouncement of the intruder who stared so wonderingly at Simon Templar, the Saint. "I can't place you," the man went on. "Look here, you're not real, are you?"

"The last time I pinched myself, I yelped," said the Saint.

The intruder walked toward the Saint. "May I?" he said, and pinched. He sighed. "I was afraid this was happening!"

"If you're dreaming all this," the Saint mused, "why don't you wake up—and vanish?"

But the Saint was not to get rid of his strange visitor so easily in **THE DARKER DRINK**, the novelet by Leslie Charteris coming next issue in which Simon Templar of radio, screen and book fame enters the fantasy fold. It's a witty, entertaining, mystifying novelet—packed with surprises in every paragraph! And it ventures into the borderline between dreams and reality in a way you'll long remember!



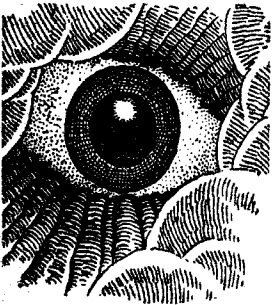
ATOMIC!

By HENRY KUTTNER

What nuclear war may do to the world we know is a closed book to mankind — but here's what coming eras may bring!

CHAPTER I

The Eye



THE alarm went off just after midnight. The red signal showed emergency. But it was always emergency at first. We all knew that. Ever since the arachnid

tribe in the Chicago Ring had mutated we'd known better than to take chances. That time the human race had very nearly gone under. Not many people knew how close we'd been to extinction. But I knew.

Everybody in Biological Control Labs knew. To anyone who lived before the Three-Hour War such things would have sounded incredible. Even to us now they sound hard to believe. But we *know*.

There are four hundred and three Rings scattered all over the world and every one of them is potentially deadly.

Our Lab was north of what had been Yonkers and was a deserted, ruinous wilderness now. The atomic bomb of six years ago hadn't hit Yonkers of course. What it struck was New York. The radiation spread far enough to wipe out Yonkers and the towns beyond it, and inland as far as White Plains—but everyone who lived through the Three-Hour War knows what the bomb did in the New York area.

The war ended incredibly fast. But what lingered afterward made the real danger, the time-bomb that may quite easily lead to the wiping out of our whole civilization. We don't know yet. All we can do is keep

the Labs going and the planes out watching.

That's the menace—the mutations.

It was familiar stuff to me. I recorded the televised report on the office ticker, punched a few buttons and turned around to look at Bob Davidson, the new hand. He'd been here for two weeks, mostly learning the ropes.

My assistant, Williams, was due for a vacation and I had about decided to take young Davidson on as a substitute.

"Want to go out and look it over, Dave?" I asked.

"Sure. That's a red alarm, isn't it? Emergency?"

I pulled a mike forward.

"Send up relief men," I ordered, "and wake Williams to take over. Get the recon copter ready. Red flight." Then I turned to Davidson.

"It'll be routine," I told him, "unless something unexpected happens. Not much data yet. The sky-scanners showed a cave-in and some activity around it. May be nothing but we can't take chances. It's Ring Seventy-Two."

"That's where the air liner crashed last week, isn't it?" Dave asked, looking up with renewed interest. "Any dope yet on what became of the passengers?"

"Nothing. The radiations would have got them if nothing else did. That's in the closed file now, poor devils. Still, we might spot the ship." I stood up. "The whole thing may be a wild-goose chase but we never take any chances with the Rings."

"It ought to be interesting, anyhow," Dave said and followed me out.

We could see it from a long way off. Four hundred and three of them dot the world now, but in the days before the War no one could have imagined such a thing as a

A NOVELET OF THE FUTURE



Finally one of the women came up out of the lake and picked her way toward us

Ring and it would be hard to make anyone visualize one through bare description. You have to *feel* the desolation as you fly over that center of bare, splashed rock in which nothing may ever grow again until the planet itself disintegrates, and see around that dead core the violently boiling life of the Ring.

It was a perimeter of life brushed by the powers of death. The sun-forces unleashed by the bombs gave life, a new, strange, mutable life that changed and changed and changed and would go on changing until a balance was finally struck again on this world which for three hours reeled in space under the blows of an almost cosmic disaster. We were still shuddering beneath the aftermath of those blows. The balance was not yet.

When the hour of balance comes, mankind may no longer be the dominant race. That's why we keep such a close watch on all the Rings. From time to time we work them over with flame-throwers. Only atomic power, of course, would quiet that seething life permanently—which is no solution. We've got Rings enough right now without resorting to more atom bombs.

It's a hydra-headed problem without an answer. All we can do is watch, wait, be ready. . . .

THE world was still dark. But the Ring itself was light, with a strange, pale luminous radiance that might mean anything. It was new. That was all we knew about it yet.

"Let's have the scanner," I said to Davidson. He handed me the mask and I pushed the head-clips past my ears and settled the monocular view-plate before my eyes, expecting to see the darkness melt into the reversed vision of the night-scanner.

It melted, all right—the part that didn't matter. I could see the negative images of trees and ruined houses standing ghostly pale against the dark. But within the Ring—nothing.

It wasn't good. It could be very bad indeed. In silence I pulled off the mask and handed it to Davidson, watched him look down. When he turned I could see his troubled frown through the monocular lens even before he lowered the scanner. He looked a little pale in the light of the instrument board.

"Well?" he asked.

"Looks as if they'd hit on something good this time," I said.

"They?"

"Who knows? Could be anything this time. You know how the life-forms shoot up into mutations without the least warning. Something's done it again down there. Maybe something that's been quietly working away underground for a long time, just waiting for the right moment. Whatever it is they can stop the scanners and that isn't an easy thing to do."

"The first boys over reported a cave-in," Davidson said, peering futilely down. "Could you see anything?"

"Just the luminous fog. Nothing inside. Total blackout. Well, maybe daylight will show us what's up. I hope so."

It didn't. A low sea of yellow-gray fog billowed slowly in a vast circle over the entire Ring as far as we could see. Dead central core and outer circle of unnatural life had vanished together into that mist which no instrument we had could penetrate—and we've developed a lot of stuff for seeing through fog and darkness. This was solid. We couldn't crack it.

"We'll land," I told Davidson finally. "Something's going on behind that shield, something that doesn't want to be spied on. And somebody's got to investigate—fast! It might as well be us."

We wore the latest development in the way of lead-suits, flexible and easy on the body. We snapped our face-plates shut as the ground came up to meet us and the little Geiger-counter each of us carried began to tick erratically, like a sort of Morse code mechanically spelling out the death in the air we sank through.

I was measuring the ground below for a landing when Davidson grabbed my shoulder suddenly, pointing down.

"Look!" His voice came tinnily through the ear-diaphragms in my helmet. I looked.

Now this is where the story gets difficult to tell.

I know what I saw. That much was clear to me from start to finish. I saw an eye looking up through the pale mist at us. But whether it was an enormous lens far below or a normal-sized eye close to us I couldn't have said just then. My distance-sense had stopped functioning.

I stared into the Eye. . . .

The next thing I remember is sitting in the familiar lab office across the desk from

Williams, hearing myself speaking.

"... no signs of activity anywhere in the Ring. Perfectly normal—"

"There's that lake, of course," Davidson interrupted in a conscientious voice. I looked at him. He was turning his cap over and over in his hands as he sat there by the wall. His pink-cheeked face was haggard and there was something strained and dazed in the glance he turned to meet mine. I knew I looked dazed too.

It was like waking out of a dream, knowing you've dreamed, knowing you're awake now—but having the dream go on—being powerless to stop it. I wanted to jump up and slam my fist on the desk and shout that all this was phony.

I couldn't.

Something like a tremendously powerful psychic inhibition held me down. The room swam before me for a moment with my effort to break free and I met Davidson's eyes and saw the same swimming strain in them.

It wasn't hypnosis.

WE DON'T win our posts in Bio Control until we've been through exhaustive tests and a lot of heavy training. None of us are hypnosis-prone. We can't afford to be. It's been tried.

We can't be hypnotized except under very special circumstances safeguarded by Bio Control itself.

No, the answer wasn't that easy. It seemed to lie in—myself. Some door had slammed in the center of my brain, to shut in vital information that must not escape—yet—under any circumstances at all.

The minute I hit on that analogy I knew I was on the right trail. I felt safer and surer of myself. Whatever had happened in that blank space just passed my instinct was in control now. I could trust that instinct.

"... break-through, just as the boys reported," Davidson was saying. "That must be what started the lake pouring up. Nothing stirring there now, though. I suppose the regular sky-scanners are watching it?"

His glance crossed mine and I knew he was right. I knew he was talking to me, not Williams. Of course the lake couldn't be hidden now that it was out in plain sight. We couldn't make a worse mistake than to rouse interest in ourselves and the lake by telling obvious lies about it. . . .

What lake?

Like a mirage, swimming slowly back through my mind, the single memory came. Ourselves, standing on the raw, bare rock of the deathly Ring-center, looking through a rift of mist like a broad, low window a mile long and not very high.

The lake was incredibly blue in the dawn, incredibly calm. Beyond it a wall of cliff stretched left and right beyond our vision, a wall like a great curtain of rock hanging in majestic folds, pink in the pink dawn, looming about its perfect image reflected in the mirror of the lake.

THE mirage dissolved. That much I could remember—no more. There was a lake. We had stood on its rocky shore. And then—what? Reason told me we must have seen something, or heard or learned something, that made the lake a deadly danger to mankind.

I knew that feel of naked terror deep in my mind must have a cause. But all I could do now was follow my instinct. The basic human instincts, I told myself, are self preservation and preservation of the species. If I rely on that foundation I can't go wrong. . . .

But—I didn't know how long I'd been back here. I didn't know how much I'd said, or how little—what orders I'd given to my subordinates, or whether anything in my outward aspect had roused any suspicion yet.

I looked around—and this time gave a perfectly genuine start of surprise. Except for Williams and myself the office was quite empty. In this last bout with my daydreaming memory I must really have lost touch with things.

Williams was looking at me with—curiosity? Suspicion?

I rubbed my eyes, put weariness in my voice.

"I'm tired," I said. "Almost dozed off, didn't I? Well—"

The sound of the ticker behind Williams interrupted my alibi. I knew in a moment what was happening. A televised report had come into my own office which my secretary was switching to the ticker for me. That meant it was important. It also meant—as I had reason to hope an instant later—that the visor was shut off in my office and the news clicking directly here for our eyes alone.

Leaning over Williams' shoulder, I read the tape feeding through.

It read—

UNIDENTIFIED ACTIVITIES IN PROGRESS AROUND NEW RING LAKE. SUGGEST DESTROYERS WORK OVER AREA. FITZGERALD.

The bottom dropped out of my stomach. Only one thing stood clear in my mind's confusion—*this must not happen*. There was some terrible, some deadly danger to the whole fabric of civilization if Fitzgerald's message reached any other eyes than ours. I had to do something, fast.

Williams was rereading the tape. He glanced up at me across his shoulder.

"Fitz is right," he said. "Of course. Can't let anything get started down there. Better wipe it out right now, hadn't we?"

I said, "No!" so explosively that he froze in the act of reaching for the interoffice switch.

"Why not?" He stared at me in surprise.

I opened my mouth and closed it again hopelessly, knowing the right words wouldn't come. To me it seemed so self-evident I couldn't even explain why we must disregard the message. It would be like trying to tell a man why he mustn't touch off an atom bomb out of sheer exuberance—the reasons were so many and so obvious I couldn't choose among them.

"You weren't there. You don't know." My voice sounded thick and unsteady even to me. "Fitz is wrong. *Let that lake alone, Williams!*"

"You ought to know." He gave me a strange look. "Still, I've got to record the report. Headquarters will make the final decision." And he reached again for the switch.

I'm not sure how far I would have gone toward stopping him. Instinct deeper than all reason seemed to explode in me in the urgent forward surge that brought me to my feet. I had to stop him—now—without delay—taking no time to delve into my mind and dredge up a reason he would accept as valid.

But the decision was taken out of our hands.

A burst of soundless white fire flashed blindingly across my eyes. It blotted out Williams, it blotted out the ticker with its innocent, deadly message. I was aware of a killing pain in the very center of my skull. . . .

CHAPTER II

The Other Peril

SOMEONE was shaking me.

I sat up dizzily, meeting a stare that I recognized only after what seemed infinites of slow waking. Davidson, his pink face frightened, shook me again.

"What happened? What was it? Jim, are you all right? Wake up, Jim! What was it?"

I let him help me to my feet. The room began to steady around me but it reeled sharply again when I saw what lay before the ticker, the tape looping down about him—face down on the floor, blood still crawling from the bullet hole in his back. . . .

Williams never saw who got him. It must have been the same flash that blinded me. I felt my cheek for the powder burn that must have scorched it as the unseen killer fired past my face. I felt only numbness. I was numb all over, even my brain. But one thing had to be settled in a hurry.

How much time had elapsed? Had that deadly message gone out while I lay here helpless? I made it to the ticker in two unsteady strides. The tape that looped the fallen Williams still bore its dangerous message.

Whoever fired past my cheek had fired for another reason, then, than this message. Of course, for how could anyone else have known its importance? There was a bewildering mystery here but I had no time to think about it.

I tore off the tape, crumpled it into my pocket. I flipped the ticker switch and sent a reverse message out as fast as my shaking hand could operate the machine.

FITZGERALD URGENT URGENT MEET ME AT RING POST 27 AM LEAVING HEADQUARTERS NOW DO NOTHING UNTIL I ARRIVE URGENT SIGNED J. OWEN.

Davidson watched me, round-eyed, as I vised for a helicopter. He put out his hand as I turned toward the door. I forced myself to stop and think.

"Well?" I said.

He didn't speak. He only glanced at Williams' body on the floor.

"No," I said. "I didn't kill him. But I



From time to time we work them over with flame throwers

might have if that had turned out to be the only way. There's trouble at the lake." I hesitated. "You were there too, Dave. Do you know what I mean?" I wasn't quite sure what I was trying to find out. I waited for his answer.

"You're the boss," was all he said. "Still, it wasn't any mutation that did—this. It was a bullet. You've got to know who shot him, Jim."

"I don't though. I blanked out. Something . . ." My mind whirled and then steadied again with a sudden idea. I put a hand to my forehead, dizzy with trying to remember things still closed to me.

"Maybe something like a mutation had a part in it at that," I conceded. "Maybe we're not alone in wanting to—to keep the lake quiet. I wonder—could something from the Ring have blanked me out deliberately, so I wouldn't see Williams killed?"

But there wasn't time to follow even that speculation through. I said impatiently, "The

point is, Dave, one man's death doesn't mean a thing right now. The Ring . . ." I stopped unable to go on. I didn't need to.

"What do you want me to do?" Davidson asked. That was better. I knew I could depend on him, and I might need someone dependable very soon.

"Take over here," I said. "I'm going to see Fitzgerald. And listen, Dave, this is urgent. Hold any messages Fitzgerald sends. *Any!* Understand?"

"Check," he said. His eyes were still asking questions as I went out. Neither of us could answer them—yet.

The desolation spun past below me, aftermath of the Three-Hour War, ruined buildings, ruined fields, ruined woods. Far off I could catch a pale gleam of water beyond the seething edge of the Ring.

I'd been en route long enough to make some sort of order in my mind—but I hadn't done it. Evidently more than time would be required to open the closed doors in my brain.

I had been in the Ring today—I had seen something or learned something there—and whatever I learned had been of such vital and terrible import that memory of it was wiped from Davidson's mind and mine until the hour came for action.

I didn't know what hour or what action. But I knew with a deep certainty that when the time for decision came I would not falter. Along with the terror and the blackness in my mind went that one abiding knowledge upon which all my actions now were based. I could trust that instinct.

Fitzgerald's copter was waiting. I could see his lead-suited figure, tiny and far below, pacing up and down impatiently as I dropped toward him. My copter settled lightly earthward. And for a moment another thought crossed my mind.

Williams! A man murdered, a man I knew and had worked with. A man I liked. That should have affected me much more deeply than it did. I knew why it hadn't. Williams' death was unimportant—completely trivial in the face of the—the other peril that loomed namelessly, in all its invisible menace, like a shrouded ghost rising from the lake beyond us.

FITZGERALD was a big blond man with blue eyes and a scar puckering his forehead, souvenir of our last battle with mutated marmosa in the Atlanta Ring. His transmitter-disc vibrated tinnily as I got out of the copter.

"Hello, chief. You got my second message?"

"No. What was it?"

"More funny stuff." He gestured toward the Ring. "In the lake this time—signs of life. I can't make anything out of it."

I drew a deep breath of relief. Davidson would have stopped that message. It was up to me now to find a way to keep Fitzgerald quiet.

"We'll take a look at the lake, then," I said. "What's your report?"

"Well. . . ." He shifted uneasily from one foot to the other, glancing at me through his face-plate as if he didn't quite expect me to believe him. "It's a funny place, that lake. I got the impression it was—well, watching me.

"I know it sounds silly but I have to tell you. It could be important, I suppose. And then when I was making a second turn over the water I saw something in the lake." He

paused. "People," he added after a moment.

"What kind of people?"

"I—they weren't human."

"How do you know?"

"They weren't wearing lead suits," he said simply, glad of a chance to pin his story down with facts. "I figured they were either not human or else insane. They heard my ship. And they went into the lake."

"Swimming?"

"They walked in. Right under the water. And they stayed there."

"What did they look like?"

"I didn't get a close look," he said evasively, his eyes troubled as they avoided mine.

I was aware of a strange, mounting excitement that swelled in my throat until I could hardly speak. I jerked my head toward the lake.

"Come on," I said.

There lay the blue water, moving gently in the breeze. The cliffs like folded curtains rose beyond it. There was no sign of life in sight as we crossed the bare, pitted rocks. Fitzgerald eyed me askance as we clumped toward the water in our heavy lead-lined boots. I knew he expected doubt from me.

But I knew also that he had told the truth. The lost memory of danger sent its premonitory shadows through my mind and I believed, dimly, that I too had seen those aquatic people, sometime in that immediate past which had been expunged from my brain.

We were halfway across the rocks, our Geiger-counters clicking roisy warning of the death in the air all around us, when the first of the lake people rose up before us from behind a ledge of rock.

He was a perfectly normal looking man—except that he stood there in khaki trousers and shirt, sleeves rolled up, in the bath of potent destruction which was the very air of the Ring. He looked at us with a blankness impossible to describe and yet with a strangely avid interest in his eyes.

When we were half a dozen paces away he raised his arm and, without changing expression, in a voice totally without inflection, he spoke.

"Go back," he said. "Go back. Get away from here, now!"

It was all returning to me . . . I knew why he looked so strange, why he spoke so flatly,

why that interest watched us from his eyes. . . .

I didn't know. The knowledge brushed the edges of my awareness and withdrew. I stumbled forward, Fitzgerald beside me excited and eager, calling out a question to the man.

He made no answer. He took one last look at us, blank, intent, impersonal, his eyes as blue as the water in the lake. And then he dropped straight downward, without stooping, without seeming to move a muscle. He vanished behind the knee-high ledge of rock.

We reached it together, shouldering one another in our eagerness. We bent over the ledge. The man had disappeared, leaving no sign behind him. Nothing but a little hollow in the rock where he had stood, a hollow no bigger than a saucer, in which blue water swayed. We stood there half stunned, for the time it took the water to gurgle downward and vanish in the hole and surge up again twice from some action of subterranean waters.

Memory was battering at the closed doors of my mind.

I knew the answer. I knew it well—but the door stayed shut. The time to remember was not yet.

THEY were watching us from the edge of the water by the time we had come within hailing distance. One by one we saw them wade up from the blue depths and take their stand in the edge of the water, ankle deep, rivulets running from their hair and clothing—drowned men and women, watching us.

They weren't drowned, of course. They looked perfectly healthy and there was more intelligence and animation in their faces than had looked at us from the vanished man of the ledge.

These were real people. The other had not been. I thought that much must be evident even to Fitzgerald, though it was a subterranean knowledge running through my mind that told me so.

"Wait, Jim," Fitzgerald said suddenly, catching my elbow. "I—don't like 'em. Stand back." He was watching the silent people in the water.

I let him stop me. Now that I was here I wasn't certain what came next. The terrible urgency still rang its alarm in the closed room of my brain but until I could gain

entry into that room I wouldn't know what was expected of me.

Fitzgerald waved to the people in the water, a beckoning gesture. They stared at us.

Then they turned and talked briefly together, glancing at us over their shoulders. Finally one of the women came up out of the lake and picked her way toward us over the lava-like rock.

She had long fair hair sleeked back from her face by the water and hanging like pale kelp across her shoulders. Her blue dress clung to her over a beautiful, supple body, water spattering from the dripping cloth and the dripping hair as she came.

Belatedly I remembered that crashed airliner and its vanished people. Were these the passengers and crew? I thought they were. But what had induced them against all reason to come this far into the deadly air of the Ring? The lake? Up to that point the thing was possible, but it was sheer madness from the moment I imagined them entering the water.

The lake, then? Was there something inexplicably strange and compelling about the lake itself that had drawn them in and sent them out again like this, alive, unharmed in the singing air that made our counters clatter?

I looked out over the waters for an answer, and—

And I got my answer—or part of it.

For out there on the rippling blue surface a shadow moved. A long, coiling shadow cast not from above but from below. Deep down in the lake something was stirring.

I strained my eyes and in the sealed deeps of my mind terror and exultation moved in answer to that coiling darkness. I knew it. I recognized it. I . . . The recognition passed.

The vast shadow moved lazily, monstrously, moved and coiled and drew itself in under the cliffs.

Slowly it disappeared, coil by coil, shadow by shadow.

I turned. The fair-haired woman was standing before us, gazing into our faces with a remote, impersonal curiosity. It was as if she had never seen another human creature before and found us interesting but—disassociated. No species that might share relationship with her.

"You're from the liner?" I asked, my voice reverberating in my own ears inside the hel-

met. "We—we can take you back." I let the words die. They meant nothing to her. They meant no more than the clatter of our belt-counters or the patter of drops around her on the rocks.

"Jim." Fitzgerald's voice buzzed in my ear-phones. "Jim, we've got to take her back with us. She's out of her head. They all are—don't you see? We've got to save them."

"How?" I tried to sound practical. "We haven't got room. There's a full liner load here."

"We can take this one." He reached out and took her arm gently. She let him, her eyes turning that remote, impersonal gaze upon his face. "It's probably too late," he said, looking at her with compassion, "but we can't leave her here, can we?"

I was watching his hand on her arm and a thought came to me out of nowhere, a fact that seemed to slip through the closed doors in my mind as they opened a tiny crack. This girl was flesh and blood. A hand closed on her arm met firm resistance. But I knew that if I had touched that first man my hand would have closed over the smooth instability of water.

I looked at the girl's face where a passing breeze brushed it, and a shiver went down my back. For it was a warm breeze, drying her hair and cheek where it blew—and I saw dark, wrinkled desiccation wherever dryness touched her skin. The sleek fair hair lost its silkiness and turned brown and brittle, the satiny cheek darkened, furrowed. . . .

I knew if she left the lake she would die. But it didn't matter. I knew there was no actual danger, either way. (*Danger to what? From what? No use asking myself that yet—the door would be open in its own time.*)

I took her other arm. Between us she went docilely toward the waiting copters, saying nothing. I don't think Fitzgerald noticed what that drying breeze was doing to her until we were nearly at the edge of the Ring.

By then it was too late to take her back even if he had understood what the trouble was.

I heard Fitzgerald catch his breath but he said nothing and neither did I.

We lifted her into his copter. I took off behind him and the visors were silent between our ships as we flew back toward Base. What could we have said to each other then?

CHAPTER III

Living Lake

THIRTY minutes after we hit the Base the girl was in a jury-rigged hydrating tank, wrapped in wet sheets, with a slow trickle of fresh warm water soaking them. Even her face was loosely covered, and I was glad of that. It was an old woman's face by now, drawn tight and furrowed over her skull. Only an arm was bare, shriveled flesh beneath which the tendons stood sharply etched.

The arm was bare for the needle that fed sodium pentothol into a vein, slowly, under the watchful eye of Sales, one of our best Base medics. We knew that presently, when the drug began to cloud her mind, Sales's skillful questions would start drawing out the memories of what had happened to her, reconstructing the basic scenes which had led to—this.

Or—we hoped they would.

"It looks like aphasia," Sales murmured. "No brain injury so far as we know yet, but—"

"Chief!" It was Davidson, touching my arm. We all turned in the half-darkness that was part of this narcosynthesis treatment. "Chief, the Mobile Staff's on its way down here. They vised after you left."

"What for?" I asked sharply, a nervous dread knotting my stomach.

"I don't know. They wouldn't say. You're the boss, after all."

But I wasn't the boss of Mobile Staff. They were bigger than I, the bureau of specialists that controlled the administration of all the Rings. They were the bosses. And if they came here now . . .

I caught Davidson's eye in the gloom. Very slightly he shook his head. The secret of Williams' death was still safe, then. But not for long. And if the Staff talked to Fitzgerald about the lake . . .

I made an enormous effort and fought down the rising panic. Information first. Then action. I had to keep that order.

Sales grunted and I looked back, forcing my attention to the business at hand.

"She must have the tolerance of an elephant," Sales said, eyeing the tube through which sodium pentothol still fed into the

girl's arm. "Or else there's some chemical metamorphosis—I don't know. I've given her enough to put a dozen men to sleep. But look at her."

I didn't like to look at her. It was obvious to me that she was dying. Yet when Sales pushed the wet sheets back from her face the impersonal, disinterested attention still dwelt upon the ceiling, fully awake, uncaring, hearing nothing we said, feeling nothing we did.

Fitzgerald said, "How could she have breathed under water?"

"She couldn't." Sales scowled at him. "There's no physiological change at all. Her respiratory system's normal."

"She must have," Fitzgerald said stubbornly. "I know what we saw."

"Anything's possible in a Ring," Sales admitted, voicing an aphorism. "But I don't see how it could have worked." He looked up at me. "How important is this, chief?"

I told him.

"Give me an hour," Sales said briefly when I had finished. "I'm going to try something else. Several other things. Maybe one of 'em will work."

"One of 'em's got to," I told him, getting up.

IN THAT hour a lot happened. Sales found what he wanted, for one thing. For another, the Mobile Staff arrived. Williams' body was found. And as for me—it was the hour that marked the turning point in my life.

Williams' death was reported on my private visor as soon as I got back to my office. I could feel Davidson's silence like a tangible thing as he listened to the exclamations and incredulity of the others.

All I could do was order the usual investigations got under way immediately. At that moment I decided not to speak of my own presence when he died. I couldn't let myself be diverted by useless questions on a subject only distantly related to my own terrible problem.

Worse than ever that deathly fear was stirring restlessly behind the closed doors of my unconscious. I knew the doors would swing open soon. Little by little they had let facts escape the barrier, and the barrier itself would be ready to fall. . . . Soon, I thought, soon.

Looking back now I lose my time-sense about that eventful hour. I think we were

still lost in dismayed wonder over Williams when the visor flickered and then framed the grim, creased face of Mobile Staff's chief, Lewis.

There was a hunted, nightmare quality about this piling of crisis upon crisis, I thought, as I went down to the reception hall to welcome my superiors. If only I could find five minutes of peace to try again those slowly opening doors!

Mobile Staff wears black uniforms. If all Bio employes are carefully tested then Mobile men are screened with such stringent care that there is reason to marvel how anyone ever passes their tests. All of these men in their severe black looked taut, nervous, keen with an edge almost ruthless in its steely temper.

"What about this lake development in Ring Seventy-Twelve?" was the first thing Lewis said to me as we walked back toward my office. It couldn't have been worse, I told myself. If they had timed themselves deliberately they couldn't have chosen a worse time.

"Three of us have seen it closely," was all I answered. "You'll want to discuss it with us in detail, I suppose."

Lewis nodded crisply. We didn't speak again until we were settled in my office, Davidson and Fitzgerald ready for questions beside me. We told what—overtly—we knew. It was Lewis, of course, who spoke with decision.

"I think we'd better destroy the thing pronto."

"Frankly, sir—" this was Davidson—"frankly, I'd think that over first. The thing's isolated, whatever it is. We'd run the risk of scattering it abroad."

"I incline that way myself," I said quickly. "Isolation. Ring it off, reroute air traffic. Leave it alone and study it . . . study it?" I suspected that was wrong. A warning bell had clanged in my brain.

Lewis sat there silently, shifting his keen glance from face to face. Just as he drew his breath to speak my desk visor buzzed.

"Report ready on Williams' death, sir," an impersonal voice said.

"All right. Hold it awhile," I began. But Lewis bent forward and gave the face in the visor a narrowed glance.

"No, let's have it right now," he said. Despairingly I wondered how much he knew and how much that abnormally keen brain had guessed already of the undercurrents

running swiftly beneath the surface of events here.

The face in the visor glanced at me. I shrugged. Lewis was boss as long as Mobile Staff remained here.

"Body of J. L. Williams, assistant to chief, was found in a locker in his own office forty minutes ago," the report began. "The shot was fired from. . . ." The voice went off into medical and ballistic details I ceased to hear. I was turning over in my mind crazy questions about how I could prevent an immediate close study of the lake at the very best, and at the worst its destruction.

"... revolver of this caliber possessed only by Chief Owen himself," the visor declared. I woke with a start. "Last men seen with the deceased were Robert Davidson and Chief Owen. Chief Owen subsequently suppressed a report from Ring Station 27 and ordered a copter for immediate departure. He then took off for—"

The visor buzzed suddenly and the monotoned report blanked out. It was an emergency interruption. Very briefly Dr. Sales' face flashed upon the screen.

"This is urgent, Chief," he said, looking into my eyes significantly. "Could you spare me five minutes in my lab right now?"

It seemed like a heaven-sent relief. I glanced at Lewis for permission. His gaze was cold and suspicious but he nodded after a moment and I got up with a single look at Davidson's deliberately blank face and went out.

SOMETHING prompted me to pause at the door after I had closed it. I was not really surprised to hear Lewis' harsh voice.

"See that Chief Owen doesn't leave the building before I've talked to him again. That's an urgent. Give it priority."

I shrugged. Things were beyond my control now. All I could do was ride along and trust to instinct.

Although Sales had asked for only five minutes of my time, he seemed oddly reluctant to begin. I sat down across the desk from him and watched him fidget with his desk blotter. Finally he looked up and spoke abruptly.

"You know the girl died, of course."

"I expected it. When?"

"Half an hour ago. I've been doing some quick thinking since then. And a lot of quick analyses. There hasn't been time yet to check, but I think she died of psychoso-

matic causes, chief."

"That's hard to credit," I said. "Tell me about it."

"She was a perfectly normal specimen by all quantitative and qualitative tests. I think suggestion killed her."

"But how?"

"You know you can hypnotize a subject, touch his arm with ice and tell him it's red-hot metal. Typical burn weals will appear. Most physical symptoms can be induced by suggestion. That girl died of dehydration and asphyxia as far as I can tell."

"We gave her moisture and oxygen."

"She didn't know it was oxygen. She didn't think she was breathing at all. So her motor reflexes were paralyzed and—she died. As for the hydrating apparatus. . . ." Sales shook his head in a bewildered way. "This sounds crazy but I think our mistake there was in giving her water as a hydrating factor. Chief, how closely did you see that lake? Do you know that it's water?"

Again that bell seemed to ring in my head. *Water? Water? Of course it isn't water, not as we've known water up to now.*

"Until I thought of that," Sales went on, "I couldn't understand her apparent breathing under water. Now I think I'm beginning to understand. A liquid can't be breathed by human beings, but there could be—well, artificial isotopes that would do the trick. Also, something drove that girl insane.

"I think she was insane. You might call it a variant of schizophrenia. Or possession if you prefer. Her mind was completely blanketed and subjugated by—something else." He drummed on the desk. Then, looking up sharply, he said, "I got samples of the lake's—water. From her body. It's not water.

"Maybe it once was but now it's mixed with other compounds. The stuff seems half alive. Not protoplasm but close to it. I can't evaporate or break it down with any chemical I've yet tried.

"There are traces of hemoglobin. In fact, the stuff has many of the attributes of blood. But—and this is important, Chief—I couldn't find traces of a single leukocyte. You see what that means?"

I shook my head.

"One of the primary results of exposing an organism to radioactivity is a reduction of the number of white cells, making it subject to infection. The proportion of polymorphonuclear white cells goes down relatively. That's axiomatic. But surely you

see what it suggests!"

Again I shook my head. A deep uneasiness was mounting in me but I had to hear him out before I acted. I knew I'd have to act. I think I knew already what I would have to do before I left this room. But I wanted to hear the rest of his story first. I signaled him to go on.

"Another thing I observed about the—call it water," he said carefully, "was the presence of considerable boron and some lithium. Of course the whole Ring area is subject to constant radiations of all kinds, but the important ones just now are the hard electromagnetic and the nuclear radiations that produce biological reactions.

"I suppose you remember that boron and lithium both tend to concentrate the effects of a bombardment of slow neutrons, so an organism like the lake would get a very heavy dose of the radiations that have the greatest effect on it."

"The lake—an organism?" I echoed.

"I think it is. Up to now we've come into conflict only with evolved and mutated creatures that were recognizable as animals even before genetic changes took place. One reason might be that mutated genes divide more slowly than others and tend to lose out in the race for supremacy.

"A complete mutation like—this lake—is something nobody really expected. The odds are too heavy against it. But we've known it could happen. And I think this time we're up against something dangerous. Big and dangerous and impossible to understand."

I leaned forward. *I knew what I had to do. Now? No, not quite yet. Inside my mind the closed doors were moving slowly, swinging wider and wider, while behind them pressed the crowding memories of danger which would burst the barrier at any moment now.*

"Forget all that for awhile," Sales said with a sudden change of expression. "I talked to the girl before she died. I'm taking cross-bearings on my conclusion, Chief. One line I've already indicated. The second is what the girl said. They check." He looked at me thoughtfully.

"I had to blank her mind clear down to the lowest articulate levels," he said, "before I could cut back under whatever compulsion it was that killed her. She didn't know she was talking. I hadn't much time—she was dying as she spoke. But from what she said I've pieced a theory together." He paused.

"Tell me, did you see anything at all during your experiences with the lake to make you suspect it might be—alive?"

CHAPTER IV

Voice of the Lake

WITH stunning suddenness, out of my memory came the vision of a great eye staring up at me through the pale fog as I maneuvered our copter above the Ring when Davidson and I first visited it.

The Eye was the lake, a vast translucent lens that had caught us like birds in a nest and drawn us down. The power of its compelling summons pouring from the lens into our brains, like sunshine into a darkened room.

"No," I said thickly. "No, I saw nothing. Go on."

"What its origin was I can't even guess," Sales said. "But originally some molecule like a gene, out of a million other molecules in that Ring area, suffered a liberation of energy when a secondary ionizing particle shot past and it changed from a gene to—something else. Something that grew and grew and grew.

"Most of the development must have taken place underground. I think the organism was complete when that cave-in occurred that exposed it to the light and to our attentions. It developed amazingly, into forms so complex we may never understand them exactly." He smiled grimly.

"If we're lucky we never will. I can tell you this much, though—it recognized its danger. Perhaps electric impulses from our own brains struck answering chords in the—the organism. And it knew it had to defend itself, fast.

"Now the lake has one fatal weakness. By that I think we can destroy it. I believe the organism is quite aware of this because of the way it chose to combat us." He paused, looking at me so strangely that I almost acted in that silent moment. But just as I was gathering my muscles to rise, he began again.

"The girl told me what happened when that air-liner came down. It must have been sheer accident, its making a forced landing at the edge of the Ring. Radio-

activity blanked out their communications and of course the air itself was close to deadly. There didn't seem any hope at all for the people in the ship.

"The girl said many of them complained of feeling—well, call it *attention*—focused on them. I know now it was the lake itself, that gigantic organism, studying them, slowly working around to a decision about its next move. Then it came to a conclusion that may not yet have reached its final equation.

"The passengers saw a man stand up from behind a rock near them. The girl said he looked familiar. He shouted and waved them away. He warned them it would mean their death if they came closer. He vanished. But the passengers were still trying to get a message out and they stayed in the ship. The man appeared three times in all, each time warning them away in stronger and stronger terms.

"Finally he rose from behind a rock very near them and this time he invited them into the Ring. They were surprised to find that when seen this close he was a mirror image of one of their crew members. The image beckoned and ordered them in. They didn't want to obey. But they went.

"That image, as you may have deduced, was a water-figure created by the lake itself, no one knows how completely. It may have been ninety percent illusion, shaped in the minds of the watchers. But you'll notice the lake had to imitate one of the crew. It didn't at that time know enough about human bodies to improvise.

"It did know a lot, though, about human minds. In fact, its power over them and its amazing selectivity make me suspect that the original gene from which the organism developed might once have been human or close to it.

"The water image was the lake's first attempt to fight off mankind. The attempt failed. In other words an imitation wouldn't do. But the real thing was close at hand for experimentation.

"What happened next no one will ever know. Logically the organism must have moved forward another step in its defense against invasion by mankind. In effect it created antibodies. It was inoculating itself with the virus of humanity in an effort to immunize itself against a later attack.

"But it had to effect a change in the humans before it could absorb them. Physi-

cally they must be changed to live under the lake and mentally they had to alter radically to stay there of their own will. It was their will the lake attacked. You saw that.

"I said before that *something* had apparently been washed from the mind of that girl we saw and some other basic drive substituted in her. I believe now I was nearer the truth than I guessed." He looked at me keenly, almost speculatively.

"If I were in a spot like that," he said, "with the problem of altering a human being's whole emotional outlook, I think I'd strike straight at the root. It would be much simpler than trying to blanket his impulses with anything like hypnotism, for instance.

"I think that for the instinct of self-preservation those people now have another drive—instinct for the preservation of the Organism. It would be so simple, and it would work so well."

THERE was a roaring in my ears. For a moment I heard nothing of what Sales said. *The flood-gates had opened and through the backflung doors all my memories were pouring.*

"But it hasn't worked perfectly," Sales was saying from far away. "Unless the lake goes a step further, we can destroy it. Perhaps it has. Perhaps it realizes that static antibodies which can't exist outside its own bloodstreams won't help much.

"Do you think, chief, that it might have captured still other humans and worked its basic change in their minds? Could it have implanted in men *like yourself* a shift in instinct so that you know only one basic drive—the Organism must be preserved?"

The idea had struck him suddenly. I could see that in his face as he leaned forward across the desk, half rising, his features congesting with the newness and the terrible danger of the thought.

I didn't even get up from my chair. I'd had my revolver out on my knee for the past several minutes, though he couldn't see it from where he sat.

I shot him at close range, through the chest.

For a moment he hung there above the desk, his hands gripping the blotter convulsively. He had one thing more to say but it was hard for him to get it out. He tried twice before he made it.

"You—it's no good," he said very thinly.

"Can't—stop me now. I've sent—full report—Mobile Staff—reading it now."

Blood cut off whatever else he wanted to say. I watched impersonally as it bubbled from his lips and he collapsed forward into the scarlet puddle forming so fast on the desk top. I saw how the blotter took it up at first but the fountain ran too fast and finally a trickle began to spill over the desk edge and patter on the floor with a sound like the dripping of lake water from that girl's garments as she crossed the rocks toward us.

The lake was blue and wonderful in the sunlight. It was the most important thing in the world. If anything happened to destroy it I knew the world would end in that terrible, crashing moment. All my mind and all my effort must be dedicated to protecting it from the danger threatening it now.

A knock at the door banished that vision. I sprang to my feet and blocked off the desk from sight.

Davidson lunged into the room, slammed the door, put his back to it. He was breathing hard.

"They're after you, Jim," he said. "They know about Williams."

I nodded. I knew too, now. I knew why my mind had gone blank when the need to silence Williams was paramount. At that time it wasn't safe for me to remember too much. It wasn't safe for me to know too much about my own actions, my own motives. Oh yes, I had killed him, all right.

"You knew all along?" I asked him. He nodded.

"You've got to do something quick, Jim," he said. "I tell you, they're coming! They know we were there together and they're almost certain you did it. Fingerprints, bullet type—think of something, Jim! I—"

There was a heavy blow on the door behind him. He wasn't expecting it. He jolted forward into the room and the door slammed back against the wall. What looked like a tide of black uniforms poured through, Lewis at the front, his granite face set, his eyes like steel on mine.

"Want to ask you some questions, Owen," he began. "We have reason to think you know more than—"

Then he saw what lay across the desk behind me. There was an instant of absolute silence in the room. Davidson had been hurled past me by the slamming open of the door and the first sound I heard was his

gasp of intaken breath as he leaned over the chair from which I'd risen.

My mind was perfectly blank. I knew it was desperately imperative that I clear myself but I'd had too many shocks, one on another, all that day. My brain just wasn't working any more.

I had to say something. I took a deep breath and opened my mouth, praying for the right words.

Davidson's hand closed on my arm. It was a hard, violent grasp, but very quickly, before his next move, he pressed my biceps three times, rapid, warning squeezes. Then he completed his motion and hurled me aside so hard I staggered three paces across the rug and came up facing him, stupid with surprise.

He had scooped up the revolver which I had dropped in my chair. I saw his fingers move over the butt as if for a firmer grip. But I knew what he was doing. His prints would have effaced mine when the time came to test it.

"All right, Lewis," he said quietly. "I did it. I shot them both." His glance shifted from face to face. When it crossed mine I recognized the desperate appeal in his eyes. It was up to me. I couldn't refuse this last offer of aid from him, in the service of a cause greater than any cause men ever fought for.

I knew the truth of that as I knew my own name. There could be no greater cause than the protection of the lake.

A look of wildness which I knew was deliberate suddenly convulsed his face. He lifted the revolver and fired straight at me.

EXCEPT—it wasn't straight. Davidson was a good shot. He couldn't miss at this range unless he meant to. The bullet sang past my ear and shattered something noisy behind me. And I saw the look of deep satisfaction relax his face an instant before Lewis' bullet smashed into it, erasing his features in a crimson blur.

(He had to fire the gun at someone—I think he remembered that wax-tests would otherwise prove he hadn't fired one recently. And it might as well be at me, to clear me of suspicion. Perhaps too he knew he couldn't make his story stand under close questioning. So it was suicide, in a way, but suicide in a cause of tremendous, unquestionable rightness. That I knew in the deepest recesses of my mind.) . . .

"All right, Owen. You give the word. Where would you say it's most vulnerable?" Was Lewis watching me with irony in his keen eyes as he asked it? For that question of all others was the one I could not answer. Physically could not, even had I wished. I think my tongue would have turned backward in my throat and strangled me, if need be, before I could tell them the truth.

"Make another circle," I said. "I'll look it over once more."

Five hundred feet below us the lake lay blue and placid. Seen from this height the majestic cliffs above it were foreshortened into insignificance, but I knew that deep beneath those rocks lay the vital cavern which no bombs must touch.

There was no sign of the mindless men and women which it had used and discarded. The antitoxin premise was no longer valid. But the next step, to a bacteriophage which would seek out and devour the virus of attack—that must not fail. I well knew what my task was.

"Try the shallows over here," I said, pointing. The ship circled and Lewis presently raised his hand.

The depth-bombs floated away behind us in a long, falling drift. They were not, I knew, merely depth bombs. Sales' memorandum had worked its recorder's will too fast for me. I had silenced the doctor but I could not silence the records. I watched the falling bombs with a sickness in my heart that was near despair.

"The Organism has no white blood-cells," Sales had reported to the Staff, his dead voice speaking the words of my own destruction in the very moment I killed him. "I believe it can be eradicated if we infect it thoroughly with a culture of every microbe and bacterium we can pour into it. The chances are something will take hold.

"If it doesn't, then we'll have to try until something does. I would suggest depth bombs. What tests I have made so far indicate the so-called water of the lake is in effect a thick skin which has so far protected the Organism from the entry of ordinary infection.

"The depth charges would serve the purpose of a hypodermic needle in introducing our weapons where they may take effect. Down there under the surface *something* must lie which is the heart of the dangerous being, something we have not yet seen. But destroy it we must, before it mutates any

further, into a thing nothing could cope with."

When the first bombs burst, they might have been bursting in my own brain. Only dimly I saw the blue water fountain toward us.

We circled, watching. The water poured itself over that terrible wound. Ripples ran sluggishly out around it toward shore. It seemed to me there was a flush in the water where those death-laden charges had fallen, but if there was, something working in the lake effaced it, washed out the toxins, healed and soothed the danger away.

I breathed a sigh of relief.

"Where next, Owen?" Lewis demanded relentlessly and I knew my ordeal had only begun. Desperation was welling up in me. How long could I drag this out? Sooner or later we would work our way around to the danger-area and this helpless being below us would die in an unimaginable agony—unimaginable to all but myself.

"Try over there," I said, pointing at random, seeing my hand shake as I held it out. I shut the fingers into a fist to stop their trembling.

How long it went on I could not remember afterward. There comes a point when flesh and blood can record no further and, mercifully for me, I reached that point after a while. By then I knew what the end must be, no matter how long I postponed it. I had done what a man could but it wasn't enough. The lake and I were helpless together and I knew—it was soothing to be sure—that we would in the end die together.

ROUND after round we made above the shuddering blue water. Charge after charge dropped, splashed, vanished, fountained up again. From shore to shore the lake was racked by interlocking ripples from those dreadful wounds. Sometimes the poisons the bombs carried were washed out and dissolved, but as time went on, more and more often they started great spreading circles of infection that traced iridescence upon the water.

Yellow virulence rippled shoreward and crossed ripples running from circles of angry crimson. The color of bruises mingled with the color of blood and the shuddering lake shivered no more than I, but in me it was a hidden shuddering. It had to be hidden.

At least it wasn't I who pointed out the heart of the lake. That happened by sheer

accident. It had to come sooner or later and after a long while it came.

Deep under the cliffs that shadowy blue cavern which I had never seen was riven asunder by a burst of white fire. And that which lay coiled in it was riven too, blinded and agonized by the tearing of the explosion and the quick avid onslaught of the disease it could not fight.

The first we saw from above was the ominous shadow suddenly uncoiling from beneath the cliff. It lashed out like a gigantic serpent, a Midgard Serpent that clasped the world in its embrace. Convulsively it unwound itself from that shadowed cavern and burst into the open in an agonized series of spasms that made the lake boil around it.

The men around me broke into a hoarse, triumphant shouting. If I could have done it I would have killed them all. But it was hopeless now. I had no longer even the will to revenge. When a man's basic instinct dies within him he ceases intrinsically to be a man at all.

The water frothed and boiled beneath us. We lost sight of whatever it was that lashed the lake in its death-frenzy. I knew but I would not look or think. I had failed and I was ready now for death along with my dying master.

Very dimly I heard Lewis giving orders for the whole area to be bombed systematically to wipe out any lingering vestiges of the thing which had died here. It didn't matter. Nothing mattered.

I was an automaton, going through the motions of a man until I could shut them out at last and take from my locked file drawer the little revolver I kept there. In a way I envied Davidson. He at least had died for a purpose, trusting me to make his sacrifice not in vain.

I had failed him, too. I had failed myself.

I had no more reason to live.

I put the muzzle of the revolver against my head.

And then—and then I found I could not pull the trigger! Something stopped me, some deep command in a level of the mind below conscious recognition. For an instant of frantic hope my reason tried to tell me that it was all a mistake, that there had not, after all, been wrought upon me that change which turned me from a human to an instrument in the command of another will.

Was it self-preservation, after all, that stayed my hand? If I had that I was free.

No—it was not self-preservation. In the next instant I knew and for one immeasurable moment the hope I had so briefly cherished flickered and then went out and was swallowed up in a great surge of command.

It was not dead. It lay far down in subterranean waters, buried, waiting, depending upon me, commanding me to stay the hand that would destroy it with me. I must live. I must serve it.

One deep wave of sick regret swept me in those levels of the mind where human reason dwelt. *If only I had pulled the trigger an instant sooner, before that command came!*

It was too late. And now a warm, confident cunning began to well into my mind from that far-away source of command. It could wait. I could wait. I could recruit where I must and it would help me to make others like myself, until our ranks were strong enough.

I had not wholly failed but until I fulfilled my duty I must obey. Obedience would be a pleasure and a joy, the insidious voice promised me. Good and faithful servant, the whisper said, work for my kingdom upon Earth and your rewards will be delightful beyond imagination.

I got up and locked the revolver away again. Turning back, I caught my reflection in a mirror on the wall and paused there, staring deep into my own eyes.

I smiled. . . .

A SATIRICAL FANTASY OF THE FUTURE!

JERRY IS A MAN

By ROBERT A. HEINLEIN

COMPLETE NOVELET—COMING IN THE NEXT ISSUE!

IN THE CARDS

An Amazing Novelet

By GEORGE O. SMITH

When Jim Forrest stole the block of zonium from Ellen Haynes he almost upset the entire Solar System, but he had the most compelling motive for theft in history!

CHAPTER I

The Theft

THE masked man crept down the corridor stealthily. It was quite dark in the hallway but he knew that it was a synthetic darkness, a matter of temporal convenience, for on a spaceship, time is regulated by the Terran daily cycle of twenty-four hours.

On spacecraft the passenger-sections observe a strict twelve-hour division between sheer brilliance and utter darkness. He estimated that it was a full two hours before light-time, which meant that those couples who preferred to sit and hold hands whilst staring at the rather over-stable aspect of the sky were by now bedded down and asleep.

Even so the masked man understood that with such it was not the sky that was appealing, and that under such circumstances time was a minor and often disregarded item. So he went carefully just in case he should happen upon such.

He was lucky. There were no couples immersed in one another's dreams and so the masked man went all the way from the auxiliary spacelock near the bottom to the "B" deck, just below the rounded hemisphere of



seamless plastiglass that domed the top of the spacecraft.

He entered the corridor that led to the staterooms and, by the dim hall lights, found the room he sought. The lock was obviously intended to keep out only honest men and the door was of the same manufacture. He took a tiny fountain-pen-sized implement from a loop in his belt and applied the business end to the door.

There was neither sound nor light. Silently the thing worked and it completely removed a sliver ten-thousandths of an inch wide as he moved the tiny beam in a careless square around the lock. He grasped the knob in his hand as he completed the cut. That way it would not drop to the floor and make an unwanted racket.

Shoving the door open gently, he entered and closed it behind him. He took a moment

Forrest smiled. "Go ahead and fire,"
he said. "You'll hurt nothing!"



to replace the square of aluminum with the lock and, with a couple of quick motions, he welded the square back in place.

An experienced welder would have called the job 'buttering' because the patch was held by only two minute battens of welded metal. It could be broken out with a single twist of the hand.

Then, reasonably safe from outside detection—if the steward passed, he would not notice unless he gave each door a careful scrutiny—the masked man took out a tiny flashlight and searched the room quickly.

A tousled head of luxuriant hair half covered the pillowcase but the face beneath it was not visible from the door. The masked man shrugged and turned to the wall compartment where the baggage was stored. He knew about where to look. He fumbled through three drawers, and finally came up-

on a box of some ten cubic inches.

It was not too heavy and the masked man tucked it under one arm and smiled confidently. His pen-beam he used to weld the call-button to its frame so that it could not be pushed. He used it to weld the lock in a barred position and, again outside, he welded the patch together firmly. The inhabitant was to all intents and purposes a prisoner until she could command attention by yelling and beating upon the door.

With the same stealth that he had used in coming this way he returned to the auxiliary spacelock. He donned the spacesuit he had left there and looked at the safety-switch that had been welded closed. He shrugged—no need of opening the switch to close the door upon it. He'd welded the switch shut so that opening the auxiliary lock hadn't flipped the warning lamp on the pilot's panel.

Then the masked man stepped out of the airlock into empty space, kicking himself away from the side of the spacecraft. At once he became a separate celestial body, and the motion of the ship with regard to his present status was an acceleration of one gravity, though his velocity was intrinsically that of the spacecraft upon his instant of severance.

But intrinsic velocity of this nature never harmed a soul and the action as he saw it, was that the ship was stable and he was falling with Terran constants towards the tail.

HE WAITED, counting off the minutes by his watch. The spacecraft dwindled and was finally lost in the distance. Yet he waited, for the first use of his suit-drive would raise a spot on the pilot's celestial sphere, giving warning.

An hour later he applied the drive on his suit and, using a small direction finder, he located another, arriving ship. Using extreme care, he put himself in the course of the oncomer and applied his suit-drive with extreme caution. He matched the acceleration of the other ship, matched its course and then, by increments, let the ship catch up with him.

Eventually it passed him close enough, and he drove himself through the main open spacelock. He slammed the airlock door and went to the control room. He made a rapid turnover and applied the drive to put as many miles as possible between himself and the pirated superliner.

Only then did he remove his suit, stow it, and address his interest to the package. It contained a strange crystal. The crystal was a perfect cube two inches to a side. From face to opposite face it was as transparent as space itself. Even the surfaces were non-reflecting. Looking through it one derived a sort of tunnel effect, for the surrounding faces were opaque. Holding it at a distance from the eye and looking through it gave the impression of a two-by-two square tube made of some metal having zero thickness. A thin square—an optical illusion—marked the boundary of the optical axis.

He nodded. This was the crystal he sought. He checked one of the opaque pair of faces with a continuity tester and confirmed his belief. For one axis of the crystal was optical, another axis was a superconductor of electricity. The third axis was a magnetic axis and was a perfect conductor of magnetic

flux. This was harder to check with simple equipment but the testing of the other two axes gave him sufficient proof.

He nodded in satisfaction.

Success!

Now, give him time to work out his problem, and everything would be just as he had planned. Getting his hands on that crystal, he felt, was going to be the first step in the success of Jim Forrest. He opened a cabinet door and started to push things aside to make space for it, when from behind him, a cool voice said:

"I'll take that!"

He turned at the voice and his face went through several changes, coming out finally with a stunned look.

"You were locked in."

"Yes?" The girl shrugged. "Well, you were locked out! Now I'll take that crystal!" Her statement was backed up by a heavy blaster that looked like a semiportable in comparison to her spacegloved hand. The hand was small and the blaster was heavy but there was no waver to the green-crystal muzzle. It was trained perfectly upon Jim Forrest's belt buckle.

"Yes? And where will you take it?"

"None of your business!" she snapped.

He looked at her suit and shrugged. "Better call for aid," he said, pointing at the space radio. "You'll never make it in suit-drive."

"Drive!" she snorted. "You'll run me near Terra before we part."

"My dear Ellen Haynes," he said with exaggerated politeness, "may I point out that we are not going to Terra?"

ELLEN laughed nastily, which made it seem worse because it went against the human grain to hear such purely vicious laughter coming from such an attractive girl.

"We'll go," she said shortly, "whether you drive or not. I can run this doodlebug too." She waved the blaster suggestively. "Turn it—or else!"

"Y'know," he replied, "maybe you'd better drill me. I don't know that I like the idea of chasing all over the solar system with Ellen Haynes."

"Turn the ship and get going."

"No," he said flatly. He stretched and went into a relaxed posture. "We're heading for Ganymede." He looked at her—stared at her—and smiled slightly. His attitude became almost paternal, as he stepped forward. "You know," he said quietly, "we both want

the same things. We ought to do them together."

"Not on my life," she said. "And stop right there!"

"You stole it first," Jim Forrest told her. "Right out from under my hands. I know why. You want to prove the opticostrictive effects, don't you?"

"It is my right to try it," she said flatly. "And I'm going to do it my own way!"

"But I know more about it than you do," he told her gently.

"I doubt that," she snapped.

"I've studied it," he said quietly. "I can identify the proper magnetic and electric axes without test. Can you?"

"I can learn," she said sharply. "Now stop—or I'll fire!"

"You see, when your dad discovered this thing he turned it over to the government. That was the law with any by-product of the uranium pile. They, however, happened to be working on something else, looking for some definite effect and couldn't take time off to investigate a crystallographic monstrosity. So it just laid around and grew dust until I—"

"I know all that," she snapped. Now . . ."

"Right," he said calmly. "Right. And I was merely holding your attention until . . ."

He leaped forward—forward and slightly to one side. She pulled the trigger hastily and the beam spat viciously but invisibly, scorching the aluminum wall of the little craft, where its reflection ricocheted across the room to burn a wall map. The aluminum behind that reflected it again, and this time it lost itself in the absorbing surface of some methacrylate plastic, which swelled and exploded gently into shards of gooey stuff.

By this time, Jim Forrest was beside the girl. He chopped down on her arm viciously. She dropped the blaster and he kicked it into the corner. Then, using his weight, he crowded her into the pilot's seat and reached over and slammed on a full five gravities.

"I can take that and move," he told her. "But you can't. Ellen Haynes, we're heading for Ganymede."

"Captain Turner will kill you," she snapped.

"Captain Turner will have to catch me first." He laughed. "And in the meantime perhaps we can come to some agreement."

"I'll never deal with a common criminal," she told him.

"How righteous!" he scoffed. "And how

did you come by this in the first place?"

"Well, it was my father's," she told him.

"A matter of opinion only," he said. "Just your opinion against most of the Solar System. The odds, Ellen, are against you!" He laughed. "And your Captain Turner? Whose side will he take? Yours—or the Solar Guard, for whom he has worked for eight years?"

"Mine," she said stoutly. "He understands moral justice."

Forrest laughed bitterly. "Uh-huh—and a pair of luminous, provocative brown eyes!"

She turned her head angrily away. There was no sense in arguing with the man. Furthermore, she knew that Captain Turner was a long way from an impersonal member of the law so far as Ellen Haynes was concerned. She would bide her time.

Turner would be certain to find them soon and then this criminal would get what he deserved—even if she had to use her charm to enrage the officer. She knew that Jack Turner would see a mad, flaming red if he thought that Forrest had harmed her in any way.

CHAPTER II

Rescue in Space

NOT very far behind them, Captain Jack Turner of the Solar Guard was following the little cruiser grimly. When it leaped in acceleration to five gravities, he assumed that they knew he was following them and decided that stealth was no longer necessary.

He crammed his power on, getting a full six gravities out of the Guardship. From time to time he considered the problem that confronted him. His—well, she was not his fiancée, but she meant more to him than the word 'friend' implies—was in possession of material labeled contraband. Nothing of intrinsic value, true—normally it would never have been missed—but it had been removed from the specimen files of the Solar Laboratory, and that in itself was a breach of the law.

There seemed to be a dog-in-the-manger effect here. The government physicists might never get around to looking at the thing regularly, so busy they were. Yet they could not permit any other experimenter to do more

than study the peculiar thing through a plate glass specimen case.

Turner's mind rejected the problem. He did not know the circumstances wholly. His matter-synchronized detector told him that the crystal had embarked on the spaceliner from Venus to Terra, that somehow it had left the liner and was now decelerating in such a back-vector that he suspected one of the Jovian satellites as its destination.

The problem of what he would actually do, he disregarded. Up to the time he confronted the girl he could view the problem dispassionately and impersonally. Whether his love for the girl would overcome his sworn duty—he'd face that when it came.

Watching his range integrator carefully, he set the autopilot to bring him into contact with the fleeing ship and then sat back to relax. It was hard on the human system to hit it up at six gravities, though everything possible had been done to make the flyer comfortable under such accelerations.

Even so, loaded with gravanol, which added tonus to the muscles and prevented the draining of blood from the nerve and brain centers, the record was held by a small, wiry fellow named Tom Whitcomb: Eight gravities for four hours before blackout was his mark.

Whitcomb, of course, was merely out for a record and did not have the emotional impetus of a project to steel his system with adrenalin.

The Guardship approached the fleeing craft and Turner dropped his acceleration to match the other ship. He sent a flaming beam at them that racketed against the hull and flared greenish hell through the observation ports and rang all the alarms in the ship. His audiostricator beam caught the hull and his voice, as he spoke into the microphone, made the little cruiser ring to his stentorian tones.

"Guardship under Turner!" rattled the ship's hull in a controlled vibration that shook the eardrums. "Drop to one gravity! Prepare to submit to search!"

In the other ship, Forrest shrugged. "There's your little pal now," he said.

Ellen looked at him, white-lipped. "What are you going to do?"

He laughed as he flipped the power switch down to one gravity. "This is a personal cruiser," he said. "We have nothing to fight back with other than harsh words and a set of knives in the galley. I should dislike to

have this crate riddled by a Guardsman. I should even further dislike the possible discontinuation of my checkered career. We'll see your little chum."

"He'll help me," she said with a positive air.

"That's swell." He grinned wolfishly. "I wish you both luck. But I'm sensible enough to think that it might be better if we could circumvent him."

Forrest smiled wearily. There was no reason to tell the girl that laws were laws and therefore inflexible regardless of the instantaneous injustice to an occasional individual. By and large, laws worked for overall justice or they would not be laws. He rested easily, getting up only once to retrieve the girl's heavy blaster, which he inspected and dropped into his pocket idly.

THEN the Guardship was upon them—close enough to reach out and take hold of the little cruiser with tractor beams. The spacelocks came together under Turner's manipulations of the beams and both spacelocks clanged open.

Jack Turner swallowed deeply. Whatever the score at this point, he was confronted with the problem of his life. "You surrender?" he demanded as he entered the control room.

"You're in," said Forrest cryptically. "Now what?"

"The zonium crystal," stated Turner shortly. "I'll take that first. It is the property of the laboratory."

Ellen looked quietly at him. "What about him?" she asked, indicating Forrest.

"Well?" he said shortly.

"He stole it from me," she said plaintively.

"But you stole it from Venus," said Turner. "Under the law, you are conspiring to deprive the government of its rightful property."

"I presume that I am listed as a criminal?" asked Ellen, more plaintively.

Turner blinked. "What can I do?" he asked.

Ellen looked pleading. "Dad discovered zonium," she said. "Dad predicted it and spent six months producing the single crystal we have. Then because of laws, Dad was deprived of the possible benefits of his study and work. Is that fair?"

"Who is to judge fairness?" asked Turner. "It has been the law for seventy years that any product of the uranium piles is the exclusive property of the government. That is

because danger might attend any individual experimentation on unknown materials.

"If you do not know nuclear history I can tell you that Tompkins and Clagone nearly blasted Terra off of the map because they inadvertently stacked a couple of transuranic elements side by side. To prevent such misadventure the law was set up. I ask you, Ellen, do you know anything about zonium?"

"Not much excepting its principal properties."

"Then you might be meddling with something that could destroy Sol."

"Not likely," she retorted.

"So?" asked Turner with a smile. "Remember that the unpredictable effects start with the uranium series. Fission occurs in several of the uranium-rare-earth metals, plutonium and the uranium isotopes two hundred thirty-four and two hundred thirty-five. Number ninety-seven was never known until the uranium pile made it, you know, and it, like other elements of the zero group, is an inert gas.

"But it is a gas which exhibits magnetic properties. Number ninety-eight has been known to combine with all of the acid elements. And number ninety-nine is naturally radioactive, breaking down to protoactinium by a double emission of alpha particles. Unless you know what to do with zonium how can you predict its behaviour?"

"Is it right to bury the results of a man's lifework?" demanded Ellen.

Guardsmen Turner faced Jim Forrest. "What can I do?" he asked simply. "My affection and my duty are opposing. I understand both viewpoints. It is hard to see a life work set aside by officialdom, rules and what might seem like bureaucracy. On the other hand I am a member of the Law. I cannot turn traitor, yet I cannot harm Ellen. I would like to retain both Ellen and my self respect."

"My father—" began Ellen harshly.

"Was, after all, working for the Lab," interrupted Turner. "He was amply paid."

"Yes," she said bitterly. "A laboratory fee. You know very well that every technician in the Lab that discovers something useful is given a royalty in addition. That's what I've been cheated of!"

"They may yet investigate it," said Turner.

"I'd prefer the rewards before I'm a hundred years old," said Ellen.

"Look," said Turner after a moment's thought. "Admittedly the government lab ignored zonium for more important things.

The government was not interested in zonium until it was stolen. But consider—this crystal has been stolen by people who have experimental experience.

"The government will wonder just why it is so important that an individual will break interplanetary law to possess it. That is a question that will probably force someone to work on it. Then you can gain the benefits legally."

ELLEN considered that for a moment. It was more or less true. "Then tell me how it is to be returned?" she asked.

"That is easy. I can make you a temporary deputy of the Solar Guard. You return the crystal to headquarters. I continue to pursue the thief."

Forrest, who had been sitting easily in his chair watching the play of personalities, suddenly sat up and looked at Jack Turner pointedly.

"You mean me?" he asked.

"I do."

"That's a nice trick," snapped Forrest. "Why not deputize me and go hunting her?"

"Because you have nothing to lose by jumping deputization," said Captain Turner shortly. "Miss Haynes has every reason in the world to do exactly as I said. As for the true thief, my report will state honestly that I located the crystal in this ship—your craft, Forrest. I will also state that it is my belief that Miss Haynes was not here of her own free will."

"She came here unasked," snapped Forrest.

The Guardsman nodded. "So did I," he said easily. "And possibly for the same reason. To return the zonium crystal to its rightful owner."

Forrest laughed harshly. "Nice sophistry," he said with a sneer. "You'll omit the fact that your definition differs from that of Miss Haynes as to the term 'rightful owner'? She thinks it belongs to her, you know."

"When she returns the crystal," said Turner, "her intent will be shown by act regardless of her statements—or your statements for that matter."

Forrest smiled. "The scales of justice seem to have become unbalanced by the added weight of a lipstick," he said cynically. "I hope you two will be very unhappy together."

"Accusing members of the Guard will get you little," said Turner.

"I seem to have been got already," grunted Forrest. "Frankly, why don't you return the crystal and let Miss Haynes pursue me? As any pursuit is going to be a laughing matter since you've already caught me, I'd prefer to be pursued by Miss Haynes."

"No thank you," replied the girl. "We'll do it as Captain Turner suggests."

"And he'll chase me all the way to Gany-mede while we're living in the same ship—with his crate fastened on to mine?"

"That need not be mentioned."

"Well, I'll darn well mention it!" snapped Forrest.

"You can't prove it," she told him.

"Ellen," said Turner to the girl, "you go into my ship and get the tender ready. You'll take off and head for Mars in the tender, which will be a little rigorous but not too uncomfortable nor dangerous.

"Once you reach Mars, you contact Guard Headquarters at the spaceport.

"Your arriving with the ship will give you amnesty until you can see General Harris and I'll write an official letter proving your deputization. Check?"

Ellen Haynes nodded. She turned to Jim Forrest and said, "It doesn't make much difference who does the work on zonium so long as it is done. At least it will not be done by you.

"And when it is done I'll get my legal share, which can't be claimed for any work done by Jim Forrest." Then she turned to Captain Turner. "Be careful," she said sincerely. "He's a glib operator."

"He'll not get away from me," said Turner.

Ellen Haynes took the crystal out of the cupboard and tucked it under one arm. Since she was still in space suit she merely flipped the helmet bowl over her head and left the pilot room to make Turner's tender ready for a spacehop.

CHAPTER III

Counteroffensive

SO," SAID Jim Forrest, "she won."

"Won?" replied Turner.

"She said that she'd end up with the crystal. What makes you think that if she stole it once from the laboratory she wouldn't steal it from you the second time?"

"Ellen Haynes is no thief!" snapped Turner.

"No? Well, consider this, Turner. Ellen Haynes does not consider herself a thief when she appropriates that rare hunk of rock. So far as Haynes is concerned, she believes that she has every right to it, especially in view of the fact that the government ignored it, thus depriving both her and her father of whatever benefits it might bring. Since she considers herself no thief, she is under no moral compulsion to deliver."

"She is a deputized Guardsman," said Turner. "As such, she is sworn to uphold the law."

"She was—and until proven otherwise—a citizen and equally responsible to uphold the law," said Forrest. "But who took the thing in the first place?"

"She is now a sworn member—"

"Look, Captain Turner," interrupted Forrest sharply. "Do you mean to stand there and tell me that a policeman is morally better than a citizen?"

Turner flushed. If he said 'yes' he'd be talking like a hypocrite—if he said 'no' he would almost be admitting that he might have been mistaken in sending the desired crystal out under the supervision of the one who had initially stolen it. His training and loyalty to the Guard made him believe that a man dedicated to the interests of the law was under more compulsion than a mere citizen without an oath.

He admitted it was wrong. He was forgetting that a criminal can swear an oath and be unfaithful to it because he doesn't mind adding false witness to a list of greater crimes providing it is gainful for him.

Forrest noted the turmoil in the Guardsman's mind and pressed his point. "Ellen told me that you'd help her," he said. "And you have. I think that Ellen believed that you'd go all the way and eschew your uniform for her, but the way you did it was to both of your advantages."

"Ellen wouldn't lie to me," said Turner stoutly.

"I know," said Forrest cynically, "because she loves you. Fine. So if she loves you in the first place, why does she break the law you've sworn to uphold? To heck with appearances, Turner. You know in your own mind that if you condone her theft of the crystal you might as well throw that fancy black and gold suit into the converter and join her in a life of—well, she's no criminal."

save for one breach—petty crime. No doctor ever got along with a medicophobe for a wife. No policeman ever spent a happy married life with a she-pickpocket. So it is either your life or hers that you'll have to follow."

"Perhaps not," replied Turner. "If she does as I expect her to and returns the crystal she can erase her minor offense. Everybody makes mistakes, Forrest. The smart man seldom repeats his errors."

"You're still forgetting that Ellen Haynes considers her act no crime. Whatever the crystal is good for she has been deprived of benefit by a situation that ignores its existence. Her theft of the thing works no hardship on the Solar System or any of its people. Define theft, Turner."

"Look," snapped Turner, "Ellen is no criminal. She has committed a crime which she can erase by her own hand. Why should she be punished for an interplanetary offense when she can and will do that which will nullify her crime?"

"Meaning?"

"Meaning simply that the uninterested arm of the law will be more convinced when she turns up with the crystal and knows that I am still pursuing the thief. I'll gladly sacrifice one criminal—you—who have no justification as she has, in order to see her free and rewarded."

"Well," said Forrest standing up and stretching, "I think this has gone far enough, Turner." He picked up a package of cigarettes from the table, put one in his mouth, and then felt for a match. He lifted the fountain-pen-sized blaster from his belt and triggered it.

The tiny beam lit his cigarette and he drew in a lungful of smoke. He blew out the smoke in a large cloud that hid his actions momentarily. Under the cover of the smoke he turned the cap on the little gadget, pointed it at Turner, and pressed the button.

THE tiny beam seared the air and drilled a tiny hole in the broad green muzzle-crystal of Turner's blaster. It heated to dull-red almost instantly, and Turner hurled the weapon from him with a shock of unexpected pain. The weapon charred the floor as it landed.

Following the beam as fast as he could Jim Forrest threw his Sunday punch while Turner was still reacting from the burn-shock. The flying fist caught Turner on the jaw and

the guardsman went down like a pole-axed steer. He came to as Forrest was snapping the Guardsman's own handcuffs on him.

"I'm no murderer," he told Turner. "I calculate it to be sixty hours to Mars at one gravity. I'll set the autopilot that way. I'll set the warning-radio also. I'll lock you in the living-suite below, where you will have all the comforts of a celibate home excepting the means with which to get out. In sixty hours your velocity will be zero with respect to Mars and the warning radio will hurl out your own personal distress call."

"You're . . . !" blazed Turner.

"Yes, I know," smiled Forrest. "A criminal. Well, kidnaping a Guardsman is merely adding to my long and checkered career. But you see, Turner, I want that crystal. You can also add theft of an official Guardship to my roster of criminal acts. So, lead the way to the living-suite below."

"I'll . . ."

"Oh, Turner, I might suggest that when you come looking for me you be very careful. I'll be driving a Guardship, you know, and if someone takes a shot at me I'll be psychologically forced to defend myself as a mere matter of survival. Guardships are pretty well-armed, or need I tell you?"

Turner blazed with anger. "Okay," he snarled. "Lock me in. But you can't lick the whole system! We'll get you cold! And if in the meantime you intercept Miss Haynes, remember that you are interfering with an official deputy."

"Then," smiled Forrest quite cheerfully, "I'm actually helping you to prove that Ellen Haynes is no criminal, aren't I?"

Turner fumed and continued to fume as Jim Forrest welded the living-suite door shut with his pen-beam.

Twenty minutes later, Turner felt the ship turn and accelerate towards Mars. He felt a slight shock a moment later and knew that Jim Forrest had just cast off in his Guardship. He cursed roundly and then, sensibly, he sat down and relaxed.

He concluded sensibly there was little to be gained by spending sixty hours in self-villification.

He'd failed temporarily but Forrest couldn't lick the whole solar system. . . .

Using Turner's matter-synchronized detector, Jim Forrest tracked the tiny space tender down in a matter of less than two hours. The tender, of course, was helpless when the Guardship tractor beam fastened onto it, and

It was drawn easily into the tender-lock and anchored.

The door opened and Ellen Haynes emerged, furious.

"Before you say anything," said Jim, "tell me whether you were really going to headquarters or were just making off with the crystal again."

"What difference does it make now?" she asked bitterly.

"No difference to me," said Forrest idly. "I'm just trying to estimate your character."

"I'm not taken in," she snapped. "With certain individuals you might stir their interest enough to make them look at it askance. But with the Solar Lab, who've already ignored the thing for years, they'd continue. So . . ."

"So you think you're going to work on it yourself?"

"I most certainly am," she said with conviction.

He laughed shortly.

"You think not?" she demanded. "Either alone or with you, since you've been after it and seem to have both me and the zonium at the same time right now."

"Ellen," he said slowly, "I intend to destroy that crystal!"

SHE grabbed for the box and shielded it with her body but Jim shook his head. "Not here," he said. "There's nothing here that would destroy it."

"Your blaster?"

"Wouldn't touch it."

"I—a blaster wouldn't touch it?" asked Ellen Haynes in amazement.

"Wouldn't touch it," he said firmly and convincingly.

Ellen's eyes opened wide. "Armor!" she breathed. And in that one instant the whole mighty idea came, flooding her mind and making her almost reel in dizziness at the flood of jumbled ideas.

Guardships plated with zonium for protection; personal armor because zonium was light in weight; zonium-lined blaster barrels to keep the things from falling apart after a hundred or so shots and perhaps even super-projectors protected by zonium liners.

The big projectors used on the Guardships were none too efficient because they etched themselves into uselessness after a hundred or less of the gigantic blasts. Half of a Guardship's bulk was filled with spare blaster replacements.

"Armor," he nodded, with a look of horror.

"What's wrong with that?" she demanded sharply.

"That's the point. There's apparently nothing wrong with it," he said, "except that there's no real reason for it. Who or what will attack a Guardship? There is no common enemy loose in the Solar System and we know that there are no extra-solar races capable of any massed attack on Sol's family—so far, anyway. There is an occasional, wild-eyed pirate but he is usually tracked down within a few weeks after he takes his first victim. With zonium armor there could be piracy because a pirate could then laugh at the heavily-armed Guardships."

"But it sounds good," she interrupted.

"And you know darn well that the Guard would immediately plate their ships with zonium!"

"Certainly. And my income from that . . . Why, I'd be unmentionably wealthy!"

She positively glowed for a moment with the idea. Then she turned to him and said, "But if a blaster wouldn't touch it, how do you hope to destroy it? Toss it into the sun?"

Jim Forrest paled. He walked over to her and pushed her aside. He took the zonium crystal from the box and hefted it while Ellen looked on in fear that he would destroy it then and there.

"Ellen Haynes," he said solemnly, "this much zonium if hurled into the sun would create a nova!"

"But it is so small."

"Yes, but zonium is a strange metal," he said. "The mass-energy relation is carefully disregarded by zonium. In normal matter, energy equals the mass times the square of the speed of light in centimeters per second."

"But its mass is not considerable."

"Zonium is a temporal metal," said Forrest. "When it is under the influence of a magnetic field passing through the magnetic axis—an electrical current through the electrical axis—and a beam of light through the optical axis its mass increases according to some exponential function of the energy levels of the radiation that is passing through it."

"Throw it into the sun where the radiation-energy output is some four million tons of energy per second and zonium increases its apparent mass by a factor of the cube—one exponential power for each axis accepting and passing radiation—of the mass of the zonium times the factorial expansion of the

energy passing through it. It would be much like hurling Jupiter into the sun."

He handed her the crystal. "Ellen Haynes," he said dramatically, "you hold in your hand the agent of Sol's destruction!"

She looked at it with fascinated horror and gingerly replaced it in the packing.

"So develop it. Plate your ships with it. Line the millions of blasters with it. Line your power converters with it. Use zonium in the units that give each dwelling light and power. Load every sportsman's crate with it and have everybody tossing cubes of the stuff around. Interesting stuff—kids will be playing with it. Then calculate your chances of keeping a bit of it out of the sun."

Ellen Haynes shuddered. About once each year some spacecraft didn't return, usually a small, privately-owned job that was trying to cut the perihelion too thin. The mortality was rather high on the drones that rode the inner flame-area of Sol's domain with automatic recorders. Yet, with good supervision, zonium would be safe.

"How," she asked drily, "do you hope to destroy it?"

"I don't know," he said. "But it must be destroyed."

CHAPTER IV

Biggest Meddler

ELLEN nodded slowly. Her dream of untold wealth dimmed somewhat. Yet she knew that supervision of the zonium metal would insure its safety. It had been so with the original fission of uranium and plutonium.

What had been made before could be made again. She would let Jim Forrest destroy it and then set about getting it rebuilt again in the government laboratory. What could any one man do to stop the development of any single phase of science?

The thing to do now was to agree with him, learn from Jim Forrest all the math and reasoning behind the stuff. Just how did he know—he alone of all the worlds of Sol and their teeming billions—that zonium would react that way. Especially when he had not worked with it.

But Ellen knew that before she could interest the laboratory in zonium, she must have

scientific and mathematical basis for her predictions. With that, not only could she interest them but she would be forgiven for her original theft. She would go along for now and learn as much as she could about zonium.

"Tell me," she said interestedly, "how do you know all this about zonium?"

"Know matrix-math?" he asked.

"A little."

"I'll bet I lose you along the way," he said. "But we've a week of hard travel between here and Ganymede in which I can prove to you—and also teach you how to handle matrix-math—that everything I've said is true."

Jim Forrest locked the crystal in the cabinet, and found paper and pencils. He started to talk and he wrote equations as he spoke, explaining each step as he went along. Ellen Haynes nodded. It was thick, and she would require the whole week even to catch up to the theories of Jim Forrest. . . .

Captain Turner, imprisoned in Jim Forrest's personal cruiser, spent a full twenty-hour period wondering. He had been resigned at first, but the idea of sitting there was against his grain.

The welded door was a mean problem. How does one breach a solid aluminum door when the thinner panels are three-sixteenths sheet aluminum-magnesium alloy and the edgings and crossbars that hold the panels are one-inch stock?

He undid the floor thumbscrews that held the chair down against maneuverings in space and hefted it. It too was aluminum alloy. He swung it at the door and dented the panel, but broke the legs of the chair. Had the seat been heavy and solid that would have done nicely, he thought.

But the chair-bottom itself was a mere frame upon which was woven a plastic-rope in the standard pattern of a cane-bottomed chair. The metal of the chair was brittle and he broke it after three swings that put but a few minute scars on the panel of the door.

The floor-lamp was little better—aluminum-zinc-magnesium die-castings. Not only were the parts light and brittle, they were positively friable.

He tried the drawers in the dresser and they added to the pile of broken metal. The bed was no good at all—just a welded-down shelf on top of which was a thick airfoam mattress.

The kitchen quarters produced a couple of sharp knives, which he employed to some advantage, but their very-long blades left Tur-

ner with too little leverage until he broke them off short. Cutting three-sixteenths aluminum alloy panel was no job for a knife.

HE SAT down to think after that. Brute force was useless—brainwork might produce an answer.

Aluminum is soluble in certain reagents—and he was in what amounted to a three-room apartment. What common reagents did exist in the average apartment? A few ounces of vinegar—three percent acetic acid. A pound of salt—sodium chloride. Aluminum is soluble in a solution of sodium hydroxide. Electrolysis of water containing sodium chloride produced chlorine and sodium, which reacted with the water and produced sodium hydroxide.

It looked like a long process. He was not a chemist, and therefore he was not too certain of any effect. There was no reaction that he knew of that would attack that door. Perhaps a chemist would know and no doubt he would be laughed at by the chemists of the Guard when he told of his futile attempts.

He went into the kitchen again. The drainage from the sink went into the converter far below him in the ship. He had no chance of getting to that at all. There was a small ventilator in every room but he was neither an eel nor a cat and removing them, if he could, would give him no chance. The air was forced out through a larger duct by an electric fan but even so it was too small for him.

The electric fan?

The electric fan!

He tackled the fastenings with a dinner-knife and succeeded in removing the small fan. He hitched it to longer leads from the floor lamp. He removed the blade and saw the swiftly-rotating shaft—it could be used as a drill.

It was blunt and polished, instead of sharp, but none the less a drill in embryonic form. To sharpen it . . .

He pawed through the bathroom cabinet and returned with a small nail-file. There was a corundum sharpening-stone in the kitchen. He filed and he honed and the end of the fan-motor shaft took on a wide, flat point. He set it against the door and tried to drill.

It was slow work but he made progress. He drilled through and then set the drill near the first hole and continued. Slowly and inexorably Captain Turner of the Space Guard

added to his line of holes. He forgot eating ignored sleep. And as the hours passed Jack Turner came closer to freedom by the minute.

At last he had a rough oval of holes in the bottom panel of the door. Then, taking a heavy iron frying pan, Turner hammered at one side of the oval where the holes were almost tangent. He broke through, turning the slight end outward.

He hammered until he could set one end of the iron handle through, and then he pried. The webbing between the holes tore until he had an opening that prevented the use of the utensil at all.

He pried with knives, with fragments of the shattered chair, with his bare hands. He finally took the motor itself, which was of steel and heavy though small, and he swung it on its wire leads. He hurled it again and again at the oval. The ship rang with the blows, but each crash saw the oval leaning outward just a fraction more.

And then, lying on his back, Jack Turner kicked the oval outward with his heels.

He was free!

Thirty hours instead of sixty—Turner raced to the control room and set the ship on course toward Ganymede. He crammed on the power until he could hardly stand to slow the course for Mars that he was on—almost at turnover where his velocity was highest—and he added a vector that would curve him through space toward Jove. Then, utterly weary, Jack Turner found his bunk and went to sleep. . . .

"You seem to know quite a bit about zoni-um," said Ellen.

Forrest smiled. "I've had little to do but think about it."

"But why the interest?" she asked him.

"Just think of me as an infernal meddler," he said.

Ellen bit her lip in disbelief.

"Well, I am," he said with a laugh. "I'm the biggest meddler of all time. Now, let's get to work. We've a week."

ELLEN HAYNES nodded. She did not know what to make of Jim Forrest. Here on cold Ganymede he had a comfortable brick building that was built along the lines of a good sized mansion. Though the cold and the winds beat at the outside with an ammoniac odor, inside of the building it was warm and pleasantly filled with the smell of a Terran garden.

Jim Forrest, she knew, was wealthy. But the word 'wealth' had a world of meanings. After Ellen had seen the building and had been shown the inside—part of it anyway—she was beginning to understand just how wealthy the man must be.

She had wondered about her relations with this strange man until he showed her a small suite of rooms that he said were to be hers. That in itself was comforting but it posed a greater question as to his character. For the apartment was not devoid of the signs of human occupancy—feminine occupancy—also young feminine occupancy.

There were the collections of scents and cosmetics and silks that are unmistakably those of a young, desirable woman. The apartment was more luxurious than any that Ellen Haynes had ever known and, though she felt distaste at the idea of using another woman's things, she found them all cleaned and properly pressed. The cosmetics were enigmatic—some of them looked used and some of them had their original labels and seals intact. The used-appearing ones, on the other hand, bore the stamp of the immaculate. They were unmarred, neither smudges nor fingermarks.

The clothing was a passable fit for Ellen Haynes—not perfect, as were her own clothes, but passable.

Ellen wondered. She wondered even more as he led her into what would have been the grand ballroom of the mansion—design and found it to be fitted as a physical laboratory. She looked around at the vastness and shuddered slightly at the unpeopled silence of the great house.

"Doesn't the lack of company get you down?" she asked.

"Seldom does," he smiled. "Besides, it is seldom this unpopulated. I've seen the day when the place was positively bulging with people. I hope to return to that happy state soon."

"But that suite you gave me . . ."

"That's been used, but not recently."

"By whom?" she persisted.

"By several persons," he said noncommittally. He smiled inwardly, knowing what she wondered about. He let her go on thinking mostly because it made no difference and it kept her from brooding on the matter of her father's discovery of Zonium and the things that it implied.

"What are you going to do?" she asked.

"I'm going to make a few tests," he said.

"This rock has got to be destroyed. Not just thrown away or buried, but completely destroyed. Disintegrated."

"In what way?" she asked.

"I'm going to try bombarding it with neutrons," he said. "The easiest way, of course, is to transmute it."

"Where will you get a neutron-supply?" she asked.

"I haven't got a uranium pile," he said unhappily. "But I have got a healthy cyclotron here. We bombard beryllium with deuterons and place the zonium in the resulting output. You see, that is one of the Be^9 (dn) B^{10} reactions, yielding a goodly spread of neutrons with energies from zero to nine million electron volts. I'd try other particles, but the neutron transmutation is always best."

He recalled Turner briefly and smiled. They had a sixty hour start on the Guardsman at least and the vectors of travel made it almost certain that they had a full week before Turner could get away and come after them in a new ship.

He did not believe that Turner could break out and he thought that if he did, the Guardsman would repair to Mars anyway to get himself a new Guardship. There was little sense in a Guardsman trying to fight an armed Guardship in Jim Forrest's unarmed sports cruiser.

CHAPTER V

Revelation

UNFORTUNATELY for Jim Forrest his mansion was not equipped with space radar and so the only indication of the arrival of Jack Turner was given in the control room of Turner's captured ship. Turner landed in Forrest's ship beside his own and viewed the huge mansion wonderingly.

Then, shrugging, Captain Turner checked his blaster, appropriated from Forrest's supply in the pilot room, and stepped to the front door of the mansion.

He set the blaster against the doorlock and drilled it once, silently but effectively. He pushed the door open and went in on silent feet. He prowled the place quietly, eventually coming to the laboratory. To find that, after the scene of carpeted floors and all of the myriad things that could be expected in

this mansion were it upon Terra, made Turner blink. Incongruity followed incongruity—first this definitely lived-in house on a barren place like Ganymede, then this magnificent laboratory stuck right in what should have been a ballroom.

What manner of man was Jim Forrest?

He stepped into the room, and saw the opened stairway to the cellar—a heck of a place for such, he thought. He went down and saw the cyclotron and it stopped him with sheer wonder. He saw Jim Forrest and Ellen Haynes, busily engaged in working over the cyclotron-target.

He lifted the blaster and said, "Up with 'em!"

They turned and blinked.

Then Forrest smiled.

"Well," he said in amusement. "Now the picture is complete! We have three factions present. One that wants to make zonium work. One who wants to destroy it utterly. One who wants it to sit in a laboratory case and moulder. Now what, Captain Turner?"

"You are my prisoners," he stated flatly. "You, Jim Forrest, are now accused of attempting to experiment on government property as well as stealing it."

"I intend to destroy it," said Forrest flatly.

"I intend to stop you," said Turner sharply. "And I've had enough foolishness!"

Ellen smiled. She turned, picked up the zonium crystal and handed it to Turner.

"Jack," she said softly, "I know what it will do now."

Captain Turner of the Space Guard smiled bitterly. "Well," he said, "what will it do?"

"It will withstand the blaster beam," said Ellen Haynes.

"I don't believe it," said Turner.

She placed the cube on a metal table and motioned for him to drill it. Turner shrugged.

"No," he said, "I'll not destroy government property."

"But you won't," she said.

"There are other things that will withstand the blast," said Turner. "Less difficult elements to make than zonium."

Forrest smiled. "Go ahead and fire," he said. "You'll hurt nothing."

Doubtfully Turner lifted the weapon. Neither of them would have told him to do so if it were not true. Both of them had been willing to steal to get it. They'd not see it destroyed, for Turner did not believe Forrest's statement to the effect that he intended to destroy it.

He pressed the trigger of his blaster and—Nothing happened!

He turned the weapon away from the crystal, pointed it down into the concrete floor and tried again.

Nothing happened!

"What is this?" he asked, checking the weapon. It was charged. It should have worked.

"This," smiled Jim Forrest, "happens to be one place in the Solar System where no blaster will fire. I have an anti-radiation field working in here that selectively prevents blaster output. Your blaster beam will just not propagate here."

"There's no such field known," said Turner stolidly.

Forrest smiled, went to the wall and pressed a button. "Now try it," he said.

Turner blasted the floor and it worked, but violently. Forrest then released the button. "So," said Forrest, "we need not fear your weapon, Turner. Now, may I explain?"

"Do so."

FORREST smiled genially. "Come on up to the living room," he said. "It's a long story and we might as well be comfortable. I promise that there will be no violence. I've worked rather hard to see that this identical situation obtained. I'll not spoil it now!"

Wondering, they followed Forrest, who had taken over the leadership again. Forrest mixed a drink at the serviette and handed one to each of them. He opened cigarette boxes on the coffee table before the sofa upon which Ellen and Turner were sitting. He turned to the fireplace and touched a button. The logs flickered.

"Artificial," he said unhappily. "I hope some day to go where I can have a real fireplace but everything that goes up the chimney as air must be replaced from somewhere, since we couldn't use Ganymedian air very long without developing a vicious case of bronchitis. But it looks pleasant anyway."

"Zonium," said Forrest, "is a rarity. Do you know where the elements of the universe come from?"

"Do you?" asked Ellen skeptically.

"According to established theory," replied Forrest, "the sun is running due to the so-called Solar Phoenix. Carbon is forced to combine atomically with hydrogen under the pressure-temperature conditions of the sun, releasing a gamma quantum, and producing

nitrogen thirteen which is unstable and by ejecting a positron returns to carbon thirteen.

"Carbon thirteen takes on another hydrogen, becoming nitrogen fourteen, which is stable. Nitrogen takes on hydrogen, becoming oxygen fifteen, which ejects a positron and becomes nitrogen fifteen. Another hydrogen makes it oxygen sixteen, which is stable excepting in the solar conditions, where it ejects an alpha particle and reverts back to carbon again, ready to go through the same process.

"Sometimes the oxygen does not break down but takes on another hydrogen again, becoming fluorine seventeen, which breaks down by positron ejection to oxygen seventeen—and another hydrogen brings it up to fluorine eighteen, back to oxygen eighteen and up to stable fluorine nineteen. You can go up and back, adding hydrogen, to make every known element.

"The curve of elemental stability peaks across iron. Elements lower than iron are more easily built up and elements above iron are more easily broken down. The whole roster of natural elements is accepted as being built by offshoots of the Solar Phoenix."

"And zonium?" asked Turner.

"The ability of zonium to withstand the blaster beam," said Forrest, "is due to the fact that zonium is really an element from another universe!"

"Another universe?" exploded Ellen Haynes.

"Right," he said. "A universe which operates differently from our own but which produces elements fundamentally constructed of the standard atomic particles of energy, which are basic. Zonium will not combine chemically with any Terran element. Its physical effects are outrageous compared with even the transuranic elements which carry the Solar Phoenix to the extremes far above uranium."

Forrest went on to explain in detail the effects of zonium on the sun. "Zonium came into being by unhappy accident," he said. "Only the furious energy of transmutation can breach the dividing energy-levels between the universes of the Cosmos. It takes place under high magnetic, electric, and optical conditions.

"These effects took place, according to my theory, at a coincidental instant when the element under bombardment was adjacent in space-time with a small crystal of zonium in the other universe.

"Using that for a pattern, this crystal of zonium came into being, was measured and accepted as a certain element in the scale. The space occupied by zonium on the periodic chart is fillable, but the metal that will be made will not be zonium like this crystal.

"Any more zonium of this type must have a splinter of this rock for a matrix to start the peculiar intra-atomic structure that gives zonium its bizarre properties.

"Once this is destroyed, as it must be, it can be made again only by extreme happenstance, for the possibility of con-jacent matter between the two universes is no less a probability than possible collisions between—not suns in the galaxy but the galaxies themselves!"

"But why couldn't all this be explained?" demanded Turner. "It seems to have entailed a large amount of mad galloping."

FORREST smiled.

"You two people are very much involved," he said. "You are attracted to one another, which is itself good. Yet your viewpoints differed greatly. So long as the zonium existed you could not but let it mar your love. Ellen felt deprived of possible benefits. Jack was a symbol of that which barred Ellen and Ellen was a symbol of that which represented everything that Captain Turner of the Space Guard held honorable.

"It is certain that the future existence of Sol depends upon the destruction of this crystal. A stasis existed during all the years of its dust-collecting stay in the laboratory, a stasis that merely was a threat to the future. For destruction must be complete!

"Supposing I merely hurled the thing into space at a velocity high enough to send it, eventually, into the gravitational grasp of some distant star. A nova would result—a nova with the Solar Phoenix gone wild and with a sample of zonium upon which to build uncounted tons of more zonium, which in explosion would be hurled throughout the universe! A chain-fission extending to every star in the universe, given time!

"Where then," he asked loftily, "would the hoped-for Grand Galactic Civilization be? Yes, I am planning on fifty million galactic years, with Sol grown cold and dead ere man is united throughout the universe. It must have its chance!"

"But why the penny's worth of plotting?" asked Turner.

"I had to do that which would bring you

two together," smiled Forrest. "The silent inert threat of zonium in the laboratory was bad enough but stabilized. I could watch that. Knowing that Ellen Haynes would try to take it eventually, I merely spent my time keeping tabs on the young and attractive lady until she swiped it. Then I took it, knowing that you were on the trail.

"I was a little surprised to find Ellen in my spaceship but it saved me the trouble of collecting her at a later date. I anticipated that you would arrive and that I could cope with you, Turner. Well, my machinations over that incident went to pieces and I planned then upon the fact that Ellen was available.

"So I spent the intervening time explaining to her just exactly how I knew the dangers of zonium. I knew also that you'd be arriving but I didn't know how soon. I've still to destroy that rock, you know. But now that I've shown Ellen and explained to you, your psychopathic animosity toward one another's principles is gone.

"By stealing the rock from Ellen and giving you the chance to offer her a means of absolution I showed her your interest. By preventing her experimentation when she took off with it I prevented disaster.

"Instead of zonium, Guardsman, I offer you the anti-propagation field. Here are notes—you and Ellen take them and expand them so that the invention will be yours.

"And now," he said, "I'm going downstairs again and blast this zonium rock into something inert."

"And we?"

Forrest laughed. "You are to go back and

explain your deputization of Ellen Haynes and my theft and destruction of the zonium block. Also," he grinned, "you two have been racing all over the system together. You'd better marry the wench, Turner, and save her good name."

"Will you, Ellen?" asked the Captain.

She nodded vehemently but her gaze was on Jim Forrest.

"But you, Jim," she said. "They'll be bounding you from here on."

"Oh me? I'm a lawbreaker," he said. "I'll escape easily."

"How?"

"Easily," he said. "I'll be out of here in time. Just give me time!"

He grinned and insisted that they leave at once. He escorted them, walking between them to the Guardship. He shook hands with Turner and congratulated him. He turned to Ellen Haynes and, with a half-smiling, half-serious expression, bent forward and kissed her lightly on the lips.

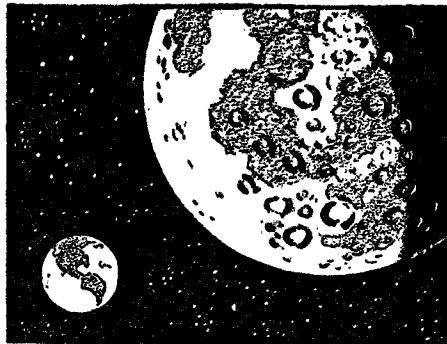
"Goodbye—Grandmother," he laughed.

He shoved her inside the spacelock and snapped the starting switch on the frame of the door. The lock clanged shut.

"Grandmother!" exploded Ellen. "What did he mean by that?"

Jack Turner had a flash of inspiration. "He said he would escape—in time," he muttered slowly. "The greatest meddler in all time. But look, Ellen, his name is Forrest, not Turner."

"Funny man," she said dreamily, "Egotist. Ever give thought to the idea that your—our—firstborn might be a girl?"



John Latimer was the first man to reach the moon—but when he returned from his journey, he could not explain what he found there in *THE TONGUE CANNOT TELL*, an unusual story by Manly Wade Wellman coming next issue!



There was an explosion so loud the plexiglass windows bulged outward for a moment

THE STROLLER

By MARGARET ST. CLAIR

*How could supercargo George Saunders know of the parasitic forces stowed away in that consignment of *Fyella corymbis*?*

ALL sorts of things come in on a space freighter. Even in the old days grocers were always finding twenty-foot pythons curled cozily inside bunches of bananas from South America; and what sort of undesired stowaways do you suppose you get when you have a cargo of tongarus from south Venus, agatized *Fyella corymbis* from the district around Aphroditon, hand-

painted lumigraphs on goor fiber made in Marsport prefecture, and golden rhnx jewelry from the canal centers?

George Saunders, supercargo of the *S.S. Triton*, gave his wife a warm kiss on the cheek.

"For Pete's sake," he hissed into her ear, "act like you're glad to see me, can't you? The Old Man's watching us."

Marta Saunders hesitated a moment and

then threw her plump body into her husband's arms.

"Oooh, Georgie!" she squealed. "You sweet old thing! It's so wonderful to see you again!"

"That's enough," George rumbled warningly. He was swaying a little from the impact. "Don't want to overdo it. Let's get out of here."

They started over to the parking area of the spaceport, where their 'copter was.

"What's the matter?" Marta demanded as soon as they were out of earshot of the ship. "What do you care what the captain thinks about us?"

"Listen, Marta, the old fool's been riding me ever since we left Aphroditon. Says I'm the most incompetent supercargo he's ever had. Just before we docked today, he said he thought he'd take it up with the union. If he does, you know what'll happen. Pynx said the last time that if he got one more complaint about me he'd take the case to the executive board. I'd lose my license, sure."

"Oh," Marta seemed unwillingly impressed. She got an atomizer out of her handcase and began spraying quick-drying cosmi-lac over the skin of her face and neck. "But what happened?" she asked an instant later when the cosmetic had set. "Why's he so down on you?"

For a moment the fine-etched lines of irritation and petulance faded from George Saunders' face, to be replaced by an expression of honest perplexity.

"Marta, I—wait, here's the 'copter. I'll tell you about it after we get in. And for the love of heaven, don't drop any pop bottles out of the window the way you did the last time I was in port. Having the air police after us would be the last straw, as far as my nerves are concerned."

He slid into the driver's seat. Marta got two bottles of pop out of the refrigerator, shoved straws into their necks, pulled a shelf out of the paneling to hold one bottle at a convenient level under George's nose, and began drinking out of the other herself.

"Well?" she asked after a couple of swallows.

George drank from his bottle before replying.

"It's the darnedest thing. I remember beginning to load number two and three holds at Aphroditon, and I remember telling the longshore leaderman to have the hatch covers put on again when the holds were filled, but there're six or eight hours in there dur-

ing the loading I don't remember a single thing about. They're totally gone.

"Well, the way the ship handled at the take-off from Aphroditon, the Old Man thought there must be something wrong, and when we were out in space he went in for a look. Wow! I can see, sort of, why he's sore. Those holds look like somebody'd stirred the things in 'em up with a big stick. About a third of the cargo's ruined. The tongarus have leaked all over those blasted lumigraphs, and— Well, the insurance company is going to raise blue murder, and the owners won't like it one little bit."

George licked his thin lips.

"What I want to know," he burst out, "is what *happened* to me? I must have told the longshoremen to load the holds like that, but— When we were two days out of Venus, I asked Sparks (he's had a pre-medical course, and he's saving up the tuition for medical school) to look me over. He gave me all the tests, dozens of them, and finally told me there wasn't a thing wrong with me mentally or physically except that I needed more rest. Rest, bushwah! I've been sleeping ten hours a night, and I wake up tireder than when I went to bed."

Marta studied him.

"You do look sort of tired," she observed. "Maybe you need some vitor-ray treatments."

George ignored this comment.

"Of course, the Old Man's not such a bad guy," he said. "He never said anything about that time I missed the ship at Marsport."

"You mean that time you were so drunk on soma? One of the times."

George gave an irritated shrug.

"Never mind that," he snapped. "I mentioned it because I asked him to have dinner with us on Thursday, the day before we sailed, and I want you to have a real old-fashioned home-cooked meal for him. Maybe I can soften him up. Have something nice for him. None of this complete meal stuff out of the freezer—have something good. Out of cans."

"You mean like my canned crab and mushroom casserole?"

"Um-hum. Have that. And what's that dessert you make with the canned peaches and the soma? Pêche flambé, or something. He might like that."

GEORGE set the 'copter down neatly on the roof of their apartment house.

"Remember," he said, "I've got to make a good impression on him. Flatter him as much as you can, but use your head about it. And if you get any kind of a chance to tell him about how reliable I usually am, do it."

The days moved on toward Thursday. George continued to complain of fatigue, and on Tuesday night Marta woke up shrieking with a vague and horrible nightmare, but it was attributed to indigestion; after a dose of antiacid, she went back to sleep. On Wednesday she had her hallucination.

She was putting a bunch of old digests and tabloids away in the closet in the living room when she came across the jacket George had used four or five years ago when he went grouch hunting.

"George!" she called. "Oh, George! Can I throw your old gray jacket away? It's full of moth holes."

"What are you yelling at me for?" George asked irritably from behind her. He had been sitting in his study, which was only about five feet distant from the closet, drinking soma. "I'm right here."

Marta came out of the closet and stared at him. One hand went to her heart. The pallor of her heavy, sagging face showed through her thick face lacquer as a muddy gray.

"Wha— I saw you go into the kitchen!" she said. "You were wearing your brown suit. I was looking right at you, and you walked the length of the living room and went into the kitchen and closed the door behind you. That's why I yelled at you. You were wearing your brown suit. You've got the blue one on now. You were wearing your brown suit!"

"Shut up!" George said passionately. "Are you trying to drive me crazy? I've been sitting right here all the time. What do you mean, you saw me walk into the kitchen? You couldn't have. I've been sitting right here all the time."

"But I saw you! You were wearing your brown suit."

"You imagined it!" her husband shrieked at her. "It's your imagination. You shut up. What are you trying to do, get me so nervous the Old Man will think I'm ready for the loony bin? You imagined it!"

Marta looked at him. She had to lick her lips twice before she could answer.

"Yes. Yes, of course. That must be it. I imagined it."

George spent the rest of the day drinking

soma and holding his hands up before his eyes to see if they had stopped shaking. Marta got a five-suit deck of cards out of the closet and played solitaire. None of her games came out, but she was too distraught to realize that she had left two of the cards inside their box.

SURPRISINGLY, both George and Marta slept well. They awakened far more cheerful than they had been the night before. Even their pre-breakfast snapping at each other lacked its usual note of bitter sincerity. When Marta left the apartment and started out to do her shopping, she was humming under her breath.

The canned crab was easy enough to locate, but she had to go to three stores before she could find the peaches and the mushrooms. She ran them to earth at last in a little grocery on a side street. Just as she was leaving it, her eye caught the flash of a red label on a low shelf near the door and she triumphantly dug out two cans of tomato soup.

"See what I got!" she said, showing her prize to George when she got back home. "I guess I'm lucky or something. It's awfully hard to find."

"Gosh!" George shut off the video to give her his full attention. "That's wonderful. I happen to know the Old Man's crazy about it. His mother used to have it all the time. I wouldn't be a bit surprised if it makes him change his mind completely about going to the union. Marta, you're a smart girl."

Marta spent the rest of the day at the beauty shop, getting her hair re-garnished with galoons and her face set. She wanted to make the best possible impression on the captain. Around five-thirty she began getting dinner—it doesn't take long to open cans—and an hour or so later the Old Man (his name was Kauss) was chiming at the door.

Kauss was definitely stiff at first. He greeted Saunders with resentful formality and gave Marta the merest flash of a smile before his face grew hard again. When the fragrant steam from the tureen of tomato soup Marta was bringing in blew toward him, he relaxed somewhat, and the salad of canned string beans, onions, lettuce and mayonnaise softened him still more. By the time he had finished two big helpings of Marta's crab casserole, it began to look like the job was saved. He offered George a

cigar and began telling him a long story about what the little Martian hostess at the Silver Weetarete had said to him.

Marta went out in the kitchen to fix the pêche flambé. She cut sponge cake into neat rounds, spread disks of hard-frozen banana ice cream over them, and crowned the structure on each dessert plate with half of an enormous canned clingstone peach. From a bottle she poured soma carefully over each of the peaches, set a bit of paper to burning by pressing it against the element in the atomic range, and then used the paper to ignite the soma on the peaches.

"George!" she called in the direction of the dining apse. "Oh, George, honey, help me with the plates!"

She heard him come in. She turned at his step, ready to pick up the plates, one in each hand, and give them to him.

He was wearing his brown suit.

But—he was wearing the green one today, wasn't he, because it was the best suit he had and he wanted to impress the captain. His green—his green—

George's face slipped down toward the fourth button on his coat. It wavered, solidified, flowed back into place, and then slopped down over his lapels once more. Suddenly it solidified into a sort of tentacle. It came falteringly toward Marta, half-blind, but purposive.

Marta tried to scream. Her throat was too constricted by terror to let out more than a mere thread of sound, but it had carrying power. George and Kauss, out in the dining apse, heard it.

They came running in. Kauss was quick-witted. He picked up one of the plates with the soma burning on it and hurled it straight at the thing that was wearing George's clothes.

There was an explosion, so loud that the plexiglas in the windows bulged outward for a moment, and then a bright, instant column of flame. Then nothing. George's brown suit lay collapsed and empty on the floor.

"It was wearing your suit, George," Marta said hysterically. She was leaning back against the wall, looking faint and sick. "George, it was wearing your suit. Oh, what was it, what was it, anyway?"

Kauss was looking at the debris on the floor. A peculiar expression, half satisfaction, half private insight, hovered around the corners of his lips.

"It was a Mocker, I think," he answered.

"A Mocker? What—?"

"Um-hum. You still find a few of them in the wilder parts of Venus. They're parasitic—ah—entities, that feed on the life force, as well as the flesh, of human beings. No doubt this one came aboard the ship at Aphrodition, in that consignment of Fyella corymbs. They're invisible most of the time, so of course we didn't suspect it."

"But how did it get here?" George demanded. "Why did it pick on Marta as a victim?"

"Well, you see the usual way a Mocker works is to select someone as a host, as a sort of base of operations, and then range out from him whenever it wants to eat. For some reason, whenever it leaves its host, it takes on his features and body and dresses itself in his clothes. That's what happened here. One of the first signs that a Mocker is taking hold is a spell of amnesia, and of course that's what happened to you, Saunders, when we were taking on cargo at Aphrodition, though I didn't realize it at the time.

"A Mocker doesn't usually kill its host directly, but it does draw on his life force to keep itself going, and he usually complains of feeling worn out and tired."

KAUSS halted. Marta looked down at her husband's brown suit and the ice cream slowly melting across it.

"Please, George, pick up that stuff before it ruins your suit completely," she said automatically. And then, to Kauss, "But what happened when you threw the plate at it? What happened? Oh, I was so scared!"

"Yes, the Mockers are terrifying." Kauss agreed. He seemed to square his broad shoulders. "However, at bottom they are unintelligent—look at the stupidity of this one in attacking you when your husband and I were in the next room—and they are really not especially dangerous provided you know the defense against them.

"You see, their body structure, while based on the same elements as our own, involves large quantities of free hydrogen between the body cells. Hydrogen ignites in ordinary air with explosive force—the end product's water—and when I threw that burning stuff at the creature, the hydrogen in its tissues exploded. It blew up. There's probably a good deal more water vapor in the air in this room than there was before I got rid of the thing."

Kauss cleared his throat.

"There's another life form," he said with a faintly professional air, "allied to the Mocker, but with important differences, which is far more dangerous. That's the Stroller."

"The Stroller?" Marta asked. George had put his arm around her; they were not an affectionate couple, but the moment seemed to call for tender demonstration. "Why do they call it that?"

"No one knows, exactly. It seems to come from the creature's own name for itself, for its fondness for taking long, long, walks."

Kauss turned the cigar in his mouth. He poked at the suit lying on the floor with the toe of his shoe.

"What does it do?" Marta queried. "Why is it so terribly dangerous?"

"The Stroller doesn't hunt a host, like the Mocker," Kauss replied. "Early in life it takes over the identity of some human being, and it remains indistinguishable from a human being to any usual test. It's so dangerous because there's absolutely no defense against it. No free hydrogen in its tissues. It's indestructible."

"My!" Marta said. "Goodness!"

"It feeds, like the Mocker, on both the flesh and the life force of human beings. Fortunately"—Kauss smiled—"it's very, very rare. There are probably only a few Strollers in the entire solar system, and they

reproduce only at widely separated intervals."

Once more Kauss halted and poked absently at the clothing on the floor with the toe of his boot.

"There's a peculiarity about their feeding habits," he said. "They'll go for years without feeling any desire to eat their special food, and then something will happen which makes them—greedy, and after that they can't be stopped before they feed."

"Goodness!" Marta said again. She hid a nervous yawn behind her hand. "George, get me a chair, will you? I'd like to sit down." To Kauss, she said, "How did you find out all these things? You must have made quite a study of the subject. Why, I've read several books about Venus, and I listen to all the casts on the video about it, but I never heard either of these creatures mentioned before. It seems to be a sort of hobby of yours."

George pushed a kitchen chair out for her; she sat down with a sigh of relief.

"Not a hobby," Kauss corrected gently.

His face began to waver and flow as the Mocker's had gone. Then it snapped back into place.

He licked his lips very delicately.

"You see, I'm a Stroller myself. And, somehow, I'm feeling that I'd like to eat."



The beautiful city of Nard, on the Planet Venus, is the scene of tense drama when fugitives from Earth make a last stand for freedom from a tyrannical matriarchy in

DONOVAN HAD A DREAM

By JAMES MacCREIGH

Next Issue's Featured Complete Novel!



Perched in the driver's seat of the old wooden ox cart, two mules were driving four men

Donkeys to Bald Pate

By SAMUEL MINES

When Professor Weedlemeyer gave a pair of mules some human intelligence, it almost made a jackass of him!

PROFESSOR WEEDLEMEYER sputtered in his eagerness, making large gestures with his hands.

"Of course!" he shouted, his accent becoming thicker with his excitement. "It is lunacy to think only man will increase in his intelligence! Animals will too—ya, und insects! It will be a fierce competition for the earth be—man and the animals!"

Jon Egan, science reporter and man of all work for the *Carolina Bugle*, yawned and searched vainly through littered pockets for a cigarette that wasn't there. He had heard all this before.

"Wish you'd do something about my dog

Spurious," he muttered. "He is the dumbest—"

"Stop annoying me with that fool hound!" Professor Weedlemeyer said crossly. He lifted his voice in a bellow. "Myrtle! Myrtle—where is the beer?"

Jon Egan brightened. The swinging door to the kitchen was opened by a foot, and a tray with beer glasses and bottles came through, followed by Myrtle Weedlemeyer, the professor's daughter.

Draw no hasty conclusions from the unfortunate name, product of absent-minded and uneclectic parental haste. Myrtle Weedlemeyer was as beautiful as the sun.

She was tall, with a magnificent lush body whose curves were a constant threat to the flimsy material seeking to restrain them.

She had gleaming black hair falling in smooth waves to a pair of wondrously formed shoulders. She had an oval face with skin as lambent as pearl and, as a final touch, a pair of huge, incredible blue eyes that were alight with internal fires.

She crossed the room, balancing the tray of drinks effortlessly, and the fluid motion of her body made Jon Egan's breath stop in his throat. As happened every time he saw this, he realized all over again that the reason he came out here was to see her, not to listen to the Professor's perpetual monolog on I.Q.

"... man of the future," Weedlemeyer was droning, "will undoubtedly a large, bulging crown have—hairless of course—und his jaws will shrink in proportion."

Myrtle sat down on the divan across from Egan, crossed sleekly rounded legs and turned the full voltage of her eyes on the newspaper man. He shuddered, downed half a glass of beer in a frenzied gulp that backfired and nearly choked him to death.

When he came out of the red fog of coughing, Myrtle sat beside him patting him on the back. The warmth of her closeness and the fragrant scent of her sent his blood pressure soaring.

"Let's go to the movies," he mumbled, catching her hand and getting up.

"Goody."

She snuggled against him. Professor Weedlemeyer regarded them sourly.

"I think I take back what I said about the intelligence of humans," he grumbled. "Movies—when science offers you the world! Bah, less intelligence than donkeys you have."

"You keep the science, daddy," Myrtle said generously. "I'll do better with what I have."

She turned her eyes on Egan again and the reporter, feeling his bones begin to soften like butter, agreed with no mental reservations.

"How sharper than a serpent's tooth is an ungrateful child!" Weedlemeyer groaned. "I tell you, I bet I could take a cat—a donkey—and make him smarter as you two!"

"Yeh? How?" Egan said.

"A nice question." Weedlemeyer's eyes went thoughtful. "Of course the brain is not so highly convoluted. In generations, of

course—but there is no time." A new thought struck him. "Suppose an animal were suddenly to have the mind and the thoughts of a man. What would he do?"

"I am reminded of a story," Egan said, grinning. "A donkey was lost and nobody could find him. Then the village half-wit appeared, leading the beast."

"I know!" Weedlemeyer snapped. "You too could imagine yourself a donkey—without trouble. So to the movies go—donkeys!"

Giggling inanely, they pattered off.

IN TEN minutes Egan had forgotten the conversation. In two weeks it had faded, it seemed, forever from his consciousness. The professor, of course, continued his interminable monologue on intelligence.

"... not only the learning ability," he would drone earnestly, pounding it home with a pudgy fist, "but sagacity—the ability to apply what is learned. How many absent-minded professors do you know who have memorized the encyclopedia, but who cannot fix a leaking hot water bottle? They lack sagacity—they cannot apply their learning!"

But Jon Egan was much too much taken up with the gorgeous Myrtle to be amused by Professor Weedlemeyer's mutterings. He was running a constant fever and his hard-shelled bachelordom was crumbling under the oxy-actylene flame of her incredible feminine appeal.

As competition, of course, he had only the entire campus—the male portion of it—plus a goodly number of the younger faculty members. But with rare judgment, or the ability to spot a dying duck when she saw one, Myrtle seemed actually to favor him. Amazing girl!

She kissed him on the porch swing, she held his hand in the movies, she murmured low into his ear.

"I hate my name. Myrtle Weedlemeyer—ugh! Sounds like something you spray on lawns."

Jon Egan gulped. He plunged.

"Why don't you change it?" he trembled.

"Myrtle Egan sounds pretty nice."

"Darling!" said Myrtle.

The kiss she gave him topped all known scorch records and reduced him to a throbbing cinder. So, engaged officially, they went hand in hand to seek Papa Weedlemeyer and break the news.

They found him peering myopically

through a comparison microscope.

"So?" he grunted. "Am I supposed to be surprised? Any donkey could have seen it coming long ago. You will all the time fight and be perfectly happy and miserable. Now away go and talk your foolishness and let me work."

The roseate daze in which Myrtle and Egan were now enveloped left no room for curiosity about the nature of Professor Weedlemeyer's work. So it came to them with as much a shock as it did to anyone else when it finally happened.

They were returning from the movies, strolling hand in hand, this warm spring night. Jasmine and magnolia were in full, fragrant bloom and the night air was alive with romance. On a street corner a political meeting was in full progress. Senator Foghorn was running for re-election. The senator was speaking in a quiet voice which could not be heard for more than three miles.

"... to perpetuate our gr-r-e-a-a-t form of government and our gr-r-e-a-a-t Constitution, the most perfect political work ever handed down to mankind by Almighty God. Anybody who dares to change one word of that sacred document is a traitor to the ideals of our gr-r-e-a-a-t country, to our magnificent boys who fought and gave their lives and to the flower of our lovely womanhood, the wives and mothers and sisters of all of us. . . ."

The senator could go on like this indefinitely, saying nothing with unsurpassed volume and untiring energy. Myrtle and Egan heard him as they left the movie house and his voice grew in volume as they drew closer to the street corner meeting.

"... democracy!" roared the senator. "The greatest gift ever handed down to mankind by Almighty God, that gives every man of us a fair and square chance at life, liberty and the pur-suit of happiness!"

He paused to take a breath and in that tiny moment of silence a new voice cut in.

"That's all right for you!" said the voice. "But what about us?"

Cut off in mid-breath, the senator's jowls remained adroop, his mouth open like a carp's. He caught his breath.

"Who said that?" he roared.

"I did," replied the voice.

"Come out here where I can see you!"

There was a rippling and a pushing in the crowd and a sudden frenzied blat of voices.

Then a woman screamed shrilly and there was a hurried mass movement to get away from the focal point of the moment.

"What's going on there?" bellowed the senator. "I said, 'who said that?'"

"I did!" snapped the voice and the next moment a big gray mule reared out of the crowd and planted its front hoofs on the speaker's platform.

A GURGLE died in the senator's throat. His eyes bulged out glassily.

"I've got 'em again," he muttered, passing a shaking hand before his eyes.

"No, you haven't," said the mule coldly. "And you haven't answered my question. Democracy is all right for you humans, but what about us mules? We do all the work and what do we get? Do we get a fair crack at that life, liberty and pursuit of happiness you like to talk about?"

Senator Foghorn fell backwards off the platform. The sheriff and the mayor, who had been retreating all the time the mule was speaking, scrambled hastily down and fled for their lives, abandoning their hapless political colleague. Women screamed wildly and there was a vast trampling of feet as the crowd left.

On the outskirts, Jon Egan pulled Myrtle hastily into a doorway to let the maddened throng stream fast. The girl had one palm clapped over luscious lips to keep the hysterical laughter bottled up.

"He's done it," she gurgled. "Papa's done it."

"I'm crazy," Egan whispered. "I've gone crazy and I'm seeing things."

"No, you're not, darling," Myrtle said prosaically. "I see it too, and I'm not crazy. It's poppa. He warned us and we wouldn't listen."

The mule was left alone on the deserted corner, except for the recumbent, blimp-like figure of the senator. The animal took its feet down from the platform, moved around it to look at the prone politician. As the animal's investigating nose snuffed at the senator's face, he came to life with a jerk, loosed an unsenatorial howl of terror and, rolling to his hands and knees, scuttled off like a giant crab.

The mule cocked a long ear after him and something suspiciously like laughter bubbled in its throat. Then it ambled off into the darkness and was gone.

"Come on," Jon Egan pulled Myrtle out

of the doorway. "We've got to get home and see what's happened to your father!"

"Oh, dad's all right," Myrtle assured him. "He can take care of himself."

"Maybe," Egan said grimly. "But he may have bitten off more than he can chew."

The college town was a bedlam of running, yelling people. They were turning out with shotguns, horse-pistols (no mule pistols being available) and fire-hoses.

The campus, however, was deserted and when Jon Egan and Myrtle got there, some of Egan's forebodings were suddenly made plain. The house was all but wrecked. Furniture had been knocked every which way, a lot of it was broken, a door hung askew on one hinge, the professor's laboratory was an untidy sea of broken glass and apparatus. Of the professor himself there was no sign.

"They've k-kidnapped him!" Myrtle gasped.

"What would a mule want with your father?" Egan puzzled.

The answer to that was more fantastic than anyone could have believed. A night of searching led them at last to the open countryside, where some of the remaining plantations struggled to retain the last shreds of their grandeur amongst the crowding tenant farms. And there at last, they ran the missing Professor Weedlemeyer to earth.

It had been a night of terror. A vast army of mules, according to the frantic stories, were terrorizing, pillaging, insulting the people of the town. Several had been shot at, but they apparently were invulnerable to bullets.

Jon Egan, recognizing mass hysteria clearly, thought there was probably only one mule and he had been seen simultaneously in dozens of places. As it happened he was wrong. There were two mules which, under Professor Weedlemeyer's god-like blundering, had received extra-asinine powers. And they were very busy on the old Clayburne plantation.

Egan saw them first as he and the girl pushed through the thin fringe of timber surrounding the field at the back of the house. He grabbed Myrtle and pulled her hastily back into concealment behind the moss dripping live-oaks.

"What is it?" she whispered.

"Don't show yourself, just look," he breathed. And to himself he added incredulously, "if I didn't know I haven't had a drink in two days—"

Out in the field was the most fantastic, incredible, unbelievable, wild, irregular, egregious, extraordinary, strange, wonderful, remarkable, unparalleled, grotesque, bizarre, unconventional, wanton, peculiar sight they had ever seen. It was also downright queer.

THERE was an old wooden ox cart in the field with high wooden wheels. Perched up in the driver's seat were two mules, reins and whip pinned clumsily in their front hoofs. And at the other end of the reins, hauling the wagon's wooden tongue, were four men, clad in nothing more than a bridle and a breech-clout apiece!

"They've reversed things!" Myrtle gasped. "The mules driving men!"

"It's democracy," Egan said, grinning a little in spite of himself. But he sobered quickly. "Look," he said pointing.

The lead man in the team was Professor Weedlemeyer.

Tarzan in a breech-clout is one thing—or Uncas. But a fat and past middle-aged professor has no dignity without his clothes. Professor Weedlemeyer was a sorry wreck of his normal rubicund self. He was gasping and disheveled with unexpected physical travail. His mouth opened for air, his eyes roamed in wild and general search for help.

"Ooh, poor papa!" Myrtle cried. "We've got to do something, Jon!"

Egan went back in the underbrush and discovered a couple of heavy tree limbs which would serve as clubs. He brought them out.

"This is probably suicide," he reflected aloud, "but we've got to make a try. When I yell—charge 'em!"

They crouched like a pair of sprinters ready for the gun and when Egan panted "Now!" they broke cover and charged.

The mules whipped long ears and eyes around to cover them. One spoke to the other.

"You take 'em, Percy. My heels are sore from kicking human rumps."

The mule with the reins tossed them to his fellow and dropped awkwardly off the wagon seat, nearly falling, but managing to regain its four feet.

Egan knew they were licked. What could even a stout club do against the lethal hoofs of a mule? And a smart mule at that who could probably outthink both of them.

But he kept charging. There was nothing

else to do except turn and run, which was undignified. Interruption came from an unexpected quarter.

The unhappy Professor Weedlemeyer straightened in his harness and with a flash of the old fire sent his voice at them.

"Jon! No! The wire—the wire!"

Befuddled, Jon slacked his racing feet to look aloft where the professor's arm pointed. The high tension wire which supplied all the town with electricity soared over this field, supported by a many-armed tower close by.

Egan didn't get it, but the word "wire" had been clear enough in the professor's shout. Obeying the impulse, he reversed his field like a running halfback and dashed for the tower.

As though sensing danger, the other mule promptly abandoned the wagon, leaped off and charged for him. The original mule bore down upon Myrtle. The girl swung her club, catching the animal on its nose.

"Ow!" yelped the mule. "I'll fix you for that, you little hinny!"

Myrtle dodged him and, gaining the shelter of the oxcart, raced around it. The men hitched to the team broke loose and scattered in every direction.

MEANWHILE, Jon Egan made the latticed tower a jump ahead of his pursuer and scrambled up the metal ladder like a squirrel. He continued to climb until he reached the first of the giant cross arms. There he set himself, holding on with one arm and a crooked leg, and swung his club.

A glass insulator shattered. There was a blinding blue-white flare of light accompanied by the smell of scorched insulation and metal. The wire melted, separated and the two ends fell to earth, trailing sparks and flame as they went.

"Watch those live wires!" Egan shouted.

They didn't hit anybody. But a strange thing happened just the same. The mules suddenly stopped what they were doing. Egan's mule, whose forehoofs had been planted well up on the tower ladder suddenly let himself drop back to earth as though he had lost interest in the whole thing and went to grazing.

The other mule abruptly stopped chasing Myrtle, lowered his head and also began to graze.

Egan stared down from his tower in cautious bewilderment. But Professor Weedle-

meyer waved him vigorously to earth.

"It is over, thank heavens," the savant declared shakily, wiping his forehead.

"What did it?" Egan asked. "Breaking that wire?"

"Ya. The current stopped, so it broadcasting the impulses from my house stopped. Look here."

He walked straight to one of the now docile mules. In spite of Myrtle's little shriek of fear, the professor caught the mule and brought it back. It came quietly.

"See here?" the professor revealed a thin chain around the animal's neck, high up, close to the base of the skull. A little metal capsule was held firmly against the mousy fur. "That's the impulse collector." He broke the chain and slipped the gadget into Egan's pocket. "Now we get the other and all is finished. I some clothes must get."

"Explain this donkey business!" Egan cried.

"Is simple," the professor said wearily. "I could not change the animal's brains, so I short-circuited them. I plugged in on their nervous systems with this little gadget and I broadcast the wave patterns of human brains, which I had from the house recorded. These two mules that received the impulses, like humans acted. That is all."

"I'll say they did," Egan said admiringly. "Uh, look, Professor." He cast a quick look about him. The other members of the professor's team had long since disappeared. They three were alone in the field.

"I'd advise you to ditch these capsules and from here on be just as mystified about this outbreak of mule revolution as anybody else. If you start to explain—if the town ever catches on that you had anything to do with it—they'll lynch you, do you hear?"

"Ya," the professor sighed heavily. "I hear. Und I am afraid you right got it. I say nothing, I know nothing."

"Good," Egan said firmly. "As for me—" he sighed—"what a story I miss! But nobody would believe me anyway, so what's the difference?"

"Hey," said Myrtle, "Forgot about me?"

"Who could forget you?" Egan muttered. He took her in his arms and kissed her.

The professor cleared his throat, but nobody paid him any attention. He coughed and ditto. He looked unhappy. He scratched one hairy leg with with toes of the other.

"I go some clothes get," he said. Nobody heard him, so he to get some clothes went.



This was the city of the underseas

DARK DAWN

By KEITH HAMMOND

Blinded by an atomic blast, Dan Gresham joins forces with the radiant Swimmers to preserve an undersea civilization!

THE *Albacore* was eight hundred miles out of Suva, feeling her way through the Pacific toward a destination unmarked except on the charts. She was a Navy cruiser jury-rigged into a floating laboratory, Navy manned, but carrying a dozen specialized technicians as passengers.

For days she had waited outside the danger area, till circling planes radioed word that the test atomic blast had apparently subsided. Then the *Albacore* went into a flurry of preparations. It was a miracle that the watch had sighted Gresham in his rubber boat, and a triple miracle that he was alive.

His eyes bandaged, he sat out on deck, while Black, the neurologist, leaned on the rail beside him and stared aft. Presently Black took out a pack of cigarettes, automatically held it out to Gresham, and then remembered that the man was blind.

"Cigarette?" he said.

"Yes, thanks. Is that you, Dr. Black?" Gresham's voice was very low.

"Uh-huh. Here. I was watching that shark. He's followed us from Suva."

"Big one?"

"One of the biggest I ever saw," Black said. "That's the baby who tried to take a chunk out of you when we picked you up. He kept biting at our oars!"

"A pity he didn't get me," Gresham said. He tossed the cigarette away. "No use. If I can't see the smoke, I can't enjoy it."

The neurologist studied his patient.

"We don't know that you're permanently blinded, after all. This is so new."

"I was looking straight at it," Gresham said bitterly. "It must have been miles and miles away, but I could feel it burning my eyes out in one flash. Don't tell me!"

"All right. I won't. But this is a completely new type of atomic blast. It isn't uranium. It's a controlled chain reaction based on an artificial element—there must be new types of radiation involved."

"Fine. The next time there's a war, we can blind everybody." Gresham laughed grimly. "I'll be sorry for myself for a few months, probably. Then I'll get a Seeing-Eye dog and become a useful member of society again. Huh!" He paused. When he spoke again his voice was different, doubtful, as if he didn't quite realize he spoke aloud. "Or maybe not," he said. "Maybe I'll never be—useful—any more. Maybe I'm not just imagining. . . ."

"Imagining?" Black said, interested. "What?"

Gresham jerked his bandaged face away.

"Nothing!" he declared sharply. "Forget it."

Black shrugged. "Tell me about yourself, Gresham," he suggested. "We haven't had much time yet to get acquainted. How did you happen to be out here just now?"

GRESHAM shook his head irritably. "Just at the wrong spot and the wrong time? Maybe it was meant that way from the start. Predestination—how do I know? Oh, I had enough after the war. I bummed

around the islands. I—like the sea." His voice softened. "Like isn't strong enough. I love the sea. I can't stay away from it. There's a fascination—I signed on here and there as a deck-hand, a stevedore—I didn't care what. I just wanted to soak myself in the big things. Sun and sea and sky. Well, I can still feel the sun and the wind, and I can hear the water. But I can't see it."

There was no real conviction in the way he finished that last sentence. He turned his bandaged eyes a little to Black's left and his face grew strained, as if he were looking at something far out at sea.

"You know about the radar sonics, don't you?" the neurologist said.

"Oh, sure. I'll learn to bounce a radar beam around me and keep from walking into walls. But—" Gresham's voice died. He seemed to be staring as if through the bandages and his own blindness at something far away. In spite of himself Black turned to follow that blinded stare. And at a great distance off he saw, or thought he saw something in the glare of the sun-track splash water and dive. . . .

"Dr. Black," Gresham was saying in that strained, doubtful voice. "Dr. Black, how are you on psychiatry?"

"Why, fair." Black kept the surprise out of his tone with an effort. "Why?"

"Have you noticed any symptoms of—aberration in me?"

"Nothing unusual. Nervous shock, of course. That atomic blast catching you certainly would have caused a strain."

Gresham said, "After the blast went off I floated for I don't know how long before you picked me up. I—started to imagine things. Delirium, you could say. But I don't know. I—forget it, will you? Maybe later I'll feel like talking. Just forget I said anything, Dr. Black."

After all, there was nothing to talk about, to put into coherent words. For what had happened was inexplicable. It was part of the terra incognita that the key of nuclear energy had unlocked.

Even Daniel Gresham, drowsing the years away in his tropical lotuslands, could not help hearing about the new atomic experiments. He had stopped keeping track of time back in 1946, because around the archipelagoes time was a variable, and hours could last for seconds or months, depending on whether you were at a *kava-kava* festival with the golden-skinned Melanesians or simply

stretched flat on the warm deck, while white canvas billowed overhead and waves splashed quietly along the keel.

But the radio wouldn't stop talking. It talked about the uranium piles constructed for experiments, and the new lithium hydride methods, and the technicians who were endlessly charting, testing, studying—and finding fresh mysteries always beyond. And this latest test—a completely new type of atomic blast, one that had never existed before on earth, except, perhaps, so long ago that the planet was a white-hot, molten mass.

Briefly, the holocaust had blazed out and vanished. But it had left traces in the instruments planted in the path of the fury, and it had left its trace, too, in an intricate, sensitive instrument cage inside Daniel Gresham's skull.

Thoughts can be measured; they are electric energy. The machine that transmits them can be functionally altered. And, adrift on his raft, Gresham had found a very strange substitute for his lost vision. . . .

The *Albacore's* boat came back with recording instruments from a floating buoy, and Black paced slowly up and down the deck, studying a coil of paper and trying to ignore the piping of sea-birds that flapped overhead, and the look of strained attention on Gresham's face. It didn't belong there, on a blind man's face. Gresham sat as he had sat yesterday, bandaged eyes turned toward the sea beyond the boat as if he could see something out there invisible to ordinary eyes.

"Doctor, what does that look like out there?" he asked suddenly.

Startled, Black followed the direction of his pointing finger.

"Why, a porpoise, I think. It—no, now it's gone." He stared at his patient in amazement. "Gresham, are you still blind?"

Gresham laughed softly. "There's a bandage over my eyes, isn't there? Of course I'm blind."

"Then how did you know about the porpoise?"

"It isn't a porpoise."

BLACK took a long breath. "What the devil's the matter with you, Gresham?" he said.

"I wish I knew. I—" Gresham's voice hesitated. Then he said with a sudden rush, "You could call it hallucination. I can see things. But not with my own eyes."

"Yes?" Black's tone was hushed. He was

terribly afraid of interrupting this mood of explanation. "Go on."

"Right now, for example," Gresham said in his soft voice, "I'm seeing this ship, from about half a mile away. I can see the smoke, and the little figures on deck. I can see myself, and you. From a distance. Once in a while a wave blocks my sight. You're holding something white."

Black stared off into the blue distance, where what had seemed a porpoise had broken water once and vanished. He could see nothing but ocean now.

"I told you I started imagining things on the raft," Gresham went on. "I kept seeing things from different angles. I knew I was blind, but there were flashes . . . green vistas . . . blue sky and white clouds. . . ."

"Memory. Imagination."

"It isn't a porpoise," Gresham said.

Black made an effort and pulled his mind into better coordination.

"Now listen," he said. "All right. You were in the direct path of some new radiations. These figures—" He rustled the paper in his hand. "They don't check exactly. There was an untyped form of radiation in this area after the atomic blast. But—" He went off at a tangent. "It isn't a porpoise? What is it, then?"

"I don't know. It's intelligent. It's trying to communicate with me."

"Good Heavens!" Black said, genuinely startled now. The look he bent upon Gresham was dubious.

"I know, I know." Gresham must have sensed in the silence that doubtful glance. "Maybe I'm making it all up. I did spot the—porpoise—but maybe my hearing's improved. The rest—well, I haven't got any proof except what I know I've seen—and felt. I tell you, it's something intelligent out there. It's trying to communicate and it can't." He rubbed his forehead above the bandages, his face taking on the old look of strain. "I can't make sense out of it. Too—alien, I guess. But it's trying hard. . . ." Suddenly he laughed. "I can imagine how you're looking at me. Would you like to try some tests, Dr. Black? Knee-jerks, maybe?"

"Come on below with me," Black said briefly. Gresham laughed again and got up. . . .

An hour later they were back on deck. Black looked worried.

"Listen, Gresham," he said earnestly. "I don't know what's happened to you. I admit

that. The encephalogram was—puzzling. Your brain emits radiations that don't check with anything we've seen before. Some peculiar things are possible, theoretically. For instance, a radio isn't really likely to pick up transmitted waves, but it does. And telepathy's theoretically possible. Suppose your brain has been altered a little by your exposure to the atomic blast. There are powers latent in the human mind, new senses that we know little about."

"I suppose you have to find new words for it," Gresham said as Black stumbled and paused. "But I don't care what the scientific diagnosis is. I can see again. Not with my own eyes. But I can see."

He was silent for a moment, and to Black it seemed that the blind man's whole face looked rapt, as if he gazed upon things more beautiful than a man with eyes ever saw. When Gresham spoke, his voice was rapt, too.

"I can see!" he repeated, almost to himself. "I don't care what else happens. Something alive and intelligent and—desperate is near me. I see through its eyes. Its thoughts are too different to understand. It's trying to tell me something, and it can't. I don't care. All I care about is seeing, and the things I see."

He hesitated.

"Beautiful," he murmured. "All my life I've loved beautiful things. That's why you found me out here, in the tropics, away from cities and ugliness. And now!" He laughed a little and his voice changed.

"If I could see your face, I wouldn't be talking this way," he said. "But I can't, so I can say what I feel. Beauty is all that matters, and in a way I'm glad even this has happened, if it means I can go on seeing things like—like this."

"Like what?" Black leaned forward tensely. "Tell me."

Gresham shook his head. "I can't. There aren't any words."

The two men sat silent for awhile, Black frowning and studying the rapt, blind face before him, Gresham staring through his bandages and through the eyes of another being, at things he could not speak of.

Something glistened among the waves, very far away, turned over in the water and sank again.

THE next morning, Gresham did not awaken. To Black it resembled catalep-

sy. The man lay quietly, his heart faintly beating, his respiration almost stopped. Once or twice a ripple of motion crossed his features and he grimaced. But that was all. He lay for a long while, half-alive.

But he was double alive, triply—a hundredfold—elsewhere.

Around dawn it began to happen to him, he thought afterward. He felt first a something reaching out for him. His internal vision kept catching glimpses and then snapping shut again like a camera lens. There was a thought, beating against a barrier, trying to get through to him. But it was too alien. It could not reach through.

Gresham's half-sleeping mind could not understand. He reached out into other minds around him, seeking contact. Bird minds—sparks of life rising and falling on the winds, dim, formless bits of cloud. And other small minds, in the waters, vague, weaving through green voids. But in the end he always came back to the Swimmer.

And in the end, the Swimmer must have realized it could not communicate, knew at last there was only one way left. It had to show him what it wanted to tell. And there was only one way to show him.

So it swam down, down in the pearly light of dawn, with the sea and sky an enormous emptiness and the *Albacore* a small dark shape miles away, and Gresham's body hidden within it, asleep, while his mind sank with the Swimmer through the fathomless seas.

Down and down, into the great deeps under the atolls, where abysses lie deeper than Everest is high. The Swimmer could plumb them, for the Swimmer was not human. Intelligent, yes, but—different. Life under the waters would follow a different course from life in the air. And cities under the sea would be very different, too.

Gresham had never known this feeling of bodily freedom before. He shared with the Swimmer the physical sensation of motion in a supporting medium through which he could move freely in any direction. It was a strange, strong body that housed his mind temporarily, but no visual image of it formed.

There were sensations of indescribable difference—a smooth, flowing, muscular thrust that exploded into bursts of action as he drove downward. And an aching, straining discomfort gradually ceased as he sank. The race of the Swimmer was meant to live in the pressure of the deeps, and now the

pressure began to fold in comfortingly. Once more the Swimmer's body felt completely its own, and that deep, sensuous pleasure made it take an intricate path downward, as a bird plays in its own element or a dolphin gambols in the waves.

The dark began to close in. But Gresham began to be aware of a new, strange light from below, an unearthly dawn, in a light-band no human eyes could ever see except in this incredible manner. He could never describe the color of the abysmal dawn, a tremendous slow brightening of sunless day permeating the vastness of underseas.

Shadows of the deep water swam past, shapes of terror and mystery and fantastic beauty. Once the leviathan bulk of the great whale went by, and once a goblin picnic of tiny colored lanterns—fish with luminous spots driving in an insanely gay flight before the shadow of a barracuda that swept like death after them.

But the sea-bottom was dark. Perhaps only in some spots was this land of veiled shadows to be found. The immense glow of the submarine dawn drew itself in and focused on small areas as Gresham's mind went downward with the Swimmer. And then a gargantuan black wall, without top or end or bottom, loomed before him.

Perspective swung round dizzily, and Gresham saw that it was no topless wall, but the bottom of the sea. Crags lifted from it. Atolls and hills jutted into the faint fringes of light, crawling with weeds, blanketed with under-sea growth. But the great plain and the valleys were in shadow.

Anchored by glowing ropes that vanished in darkness below, swung latticed spheres of light. There were dozens of them, like shining toy balloons expanding in size as the Swimmer swept nearer and nearer. Across the lattices a troubled whirling ran, shaking vortices of darkness that made the spheres fade and brighten like lanterns, and then pulse into dimness again.

The Swimmer's headlong sweep, like flight through green air, carried Gresham straight toward the nearest globe. Between the lattices an opening like a shutter widened, gaped, closed.

And this was a city of the underseas.

* * * * *

For five days Gresham's body lay all but motionless in his bunk on the *Albacore*, while the ship drove forward over fathomless abysses where Gresham's mind moved

among mysteries. Dr. Black spent as much time as he could spare beside the cataleptic sleeper, watching the vague shadows of expression that moved now and again across his face—wonder, sometimes revulsion, sometimes strain and dread. But only the shadows of the real emotions which Gresham's mind knew, far away.

On the fifth day he woke.

BLACK saw his hands rise quickly to the bandaged eyes, and Gresham sat up abruptly, making an inarticulate sound in his throat. His face for a moment was wild with dismay and horror.

"It's all right," Black said quietly. "It's all right, Gresham. You've been asleep and dreaming, but you're safe now. Wake up!"

"Safe!" Gresham said bitterly. "Blind again, you mean. And—" His face convulsed once in a grimace of revolt; then he had himself under control and his hands which had been clawing futilely at the bandage as if they could pull away blindness from his eyes, fell quietly to the blanket.

"What was it?" Black asked. "You were dreaming? Would you like to tell me?"

It did not come all at once. The story covered many days in fragmentary sessions, but in the end Gresham told.

"You'll find a diagnosis to cover it," he said to Black. "You'll have to decide I'm a schizophrenic—is that the word—and I'm having hallucinations. It doesn't matter to me. I know what happened. There were cities down there. . . ."

He had never known true beauty until he moved with the Swimmer through those incredible floating towns under the water. Our own race, chained by fetters of gravitation to the ground, never knew such wonders. Our bodies have been deformed, unsuccessful adaptations ever since we learned to walk upright. But a species without enslavement to gravity, developing in sheer beauty and sheer freedom, perfectly adapted to their green aqueous world, had come into existence underseas.

"They can build as they like," Gresham said softly. "Gravity doesn't affect them, you see. There were houses—if you could call them houses—made in spirals and coils and spheres. They can float free within the globes if they like. Some of the houses move in orbits. Some of them—oh, I can't tell you. I lived there with them for a long while, but I can't describe them and I can't tell you

what the people were like. There aren't words."

"He had to take me down to make me understand what he wanted. The Swimmer, I mean. But his city, like his mind, is too alien to tell about. I can only say it was beautiful; the kind of beauty I've loved all my life and tried to find for years. I'm going back down there, Black."

"Why?" Black had a note-pad on his knee and his pen was moving smoothly across it as Gresham's quiet voice went on. "Tell me about it, Gresham."

"It was the atomic explosion," the blind man said. "The radiations released some sort of balance, away down there, and their machines aren't working as they should any more. That's what caused those whirlpools of darkness in the light and made the lattices around the cities shake. And they need the lattices. They have an enemy down there—another race, or maybe a branch of their own race."

"It's strange to think of wars going on down there just as they have here, and one race enslaving another, as the Swimmer's people did. I thought at first they were—well, call it evil. I saw how they ruled. Evil is a foolish word. The Swimmer people are so beautiful and strong and wild, you can't apply our rules to their lives. I lived among them. I saw that other race, in the dark of the sea-bottom, banished from that wonderful, strange light a human couldn't even see."

"At first I thought it was cruelty that kept the—the others—enslaved. And then I happened to see one of the Others." His voice faltered and a shadow of revulsion crossed the bandaged face. "I saw what was left after a minor uprising, and I saw how the Others kill, and what they look like. After that I knew. If the decision were mine, I'd exterminate them all. I can't help that feeling. It's instinct. There are things too degenerate to live."

"It's all been going on down there for I don't know how many centuries, how many milleniums. Think of it, Black! Empires rising and falling, races ruling and races enslaved, sciences developing along lines we'll never understand and nobody guessing it until the Swimmer came to the surface."

"His race is intelligent. They must have realized the new radiations and the explosion had come from another intelligent race. They've seen sunken ships and drowned men, they knew we lived here in the air.

But they're so alien . . . No communication is really possible between us. If it weren't for the accident that did—whatever it did—to my brain, no human might ever have known.

"Well, I'm going back. There's trouble down there. They need help." Gresham paused and laughed harshly. "Why do I keep thinking I can help them? I can't even share their thoughts. All I can do is find some creature to take me down into the depths, so I can see with its eyes. I can watch, if I can't help. I can move through those wonderful cities again, and see the Swimmer's people." His voice faltered and he gave his mind up for an instant to the memory of that race and its beauty and wildness and strange, alien enchantment.

"The Swimmer himself had to stay," Gresham said. "The machines—you'd never guess they were machines to see them—weren't working well. All who could had to help the machines, help to keep the dark race—the Others—away from the cities. So the Swimmer's mind let go of mine and I had to come back."

"What can you do?" Black asked. "Is there any way to get in touch again?"

GRESHAM turned his blinded face toward the ocean. He was silent for a moment.

"That shark," he said. "The big one. He's still following us."

Black had to rise and lean over the rail to make sure.

"Yes, I can see him now. He's with us."

"That'll do," Gresham said confidently.

"An intelligent mind can control a non-intelligent one for awhile. I'll take the shark's body and go back."

"You're tired, Gresham," Black said. "We can talk about this later. I'm going to give you a sedative and I want you to rest."

Gresham laughed. "See that gull up there? What would you say if it circled three times and landed on the rail beside you?"

Black looked up. The gull sailed in one wide circle, two circles, three—and swooped down toward the rail. Its yellow feet gripped and closed and it perched there turning its head from side to side and looking at Black with eyes that fantastically seemed to him for a moment Gresham's eyes, as if the blind man in the bird's dim brain looked out and saw him.

Gresham laughed again.

"You've got a notebook on your knee," he said. "You have no idea how queer you look through a bird's eyes, Black. All out of focus and strange."

"Let it go," Black said in a choked voice. The gull tipped forward and spread its wings, its eyes going blank again with mindless bird-thoughts.

"Yes," Gresham said. "The shark will do. . . ."

Black sat beside the bunk and watched the sleeping face of the blind man, his own mind in a turmoil. He could not believe or accept Gresham's story, but in spite of himself he found images slipping through his brain as he saw emotions flicker across the cataleptic face. He saw the green abysses sliding by, he saw the nameless undersea dawn brightening in the depths, felt the great shark's body bend its banded muscles and drive on and on toward a city of floating spheres that illuminated the dark like lanterns lighted by no human hands.

Suddenly Gresham sat straight up among the blankets. The blood rushed into his face and he said, "Huh!" in a choked, inarticulate voice.

"Gresham?" Black said, laying a hand on his arm. "Are you awake? What is it?"

He was not awake. He did not turn his head or feel the hand or hear the voice. All his faculties were focused on something very far away, deep down in the abysses beneath the boat. He was like a man in a nightmare. His breath came fast now, through bared teeth, and his face convulsed into the lines of a man fighting for his life.

"The dark!" he said thickly. "The dark! Where did the lattices go? What's wrong? Oh, what's happening here?" But that was the last articulate speech he made, and the last words Black had time to hear, for suddenly Gresham began to struggle violently with the blankets, striving to throw them off, lashing out with clenched fists whenever Black tried to hold him.

In the end they had to strap him to the bunk to keep him from injuring himself and those around him. He lay there struggling furiously, resting in panting silence and then fighting against the restraining bands again. His face was wild with a ferocity that sent cold shivers through Black's mind, a less than human ferocity.

And in the writhing of his body against the straps, in the way it bowed and lashed straight again, and the strangely fluid mo-

tions of his struggle, Black tried not to think he saw the movement of a shark's body fighting in deep water against an alien foe.

"Blood!" Gresham muttered, deep in his throat. "Blood—so much blood—can't see, but—there's another—kill, kill! Kill them all!"

And it seemed to Black that the little cabin was dark with the dark of the undersea and blinded with blood that spread through the dim water, and boiling with the terrible combat of an unknown struggle.

He knew to an instant when the shark died. He could tell by the last spasmodic convulsion of Gresham's body on the bed, the double lashing motion and the sudden silence. He even thought he saw for an instant the blankness of death itself flicker across Gresham's face, the brush of it touching the edges of the mind that had controlled the shark's mind.

After that there was only silence, and the slumber of deep exhaustion. . . .

"It was too late," Gresham said. His voice was a whisper, hoarse from the shouting he had done through his nightmare. His body was bruised from struggling against the straps, and his mind was sick and tired.

"It must have been too late from the moment the explosion went off, if anyone had known. But they still hoped. They sent the Swimmer up and they brought me down, hoping until the last I could do something." He laughed briefly, a croaking sound in his raw throat. "I might have known it was too wonderful to last. The cities and the people—they were never meant for human eyes to see. I was lucky to get even the one glimpse I had. And maybe it's just as well. The two cultures never could have met. If there were any way for humans to reach them, we'd only have destroyed their culture as we've destroyed everything else that's beautiful. As we'll destroy ourselves, when the time comes.

"We did destroy them, Black. The explosion did it. And maybe this was the best way, quick enough, after all."

"But what was it? What happened?"

THE FACE beneath the bandages was grim.

"I went down with the shark. I could see from a long way off that something had gone wrong. Only a few of the cities were lighted, and one of them flickered out as we came near. And in the underwater dawn-light I could see black shapes, shambling.

"If it hadn't been for the dark people, the slaves, I think they might have won. They were getting the machines under control again, you see. In the last city the machine might have held out, if the Others hadn't already been in the city.

"I made the shark swim closer, in through one of the dark cities where I'd gone with the Swimmer. Once it was full of lights and spiral dwellings, beautiful, lithe people gliding among the floating orbits of their homes. Now it was dark. I couldn't see much—thank God. But the . . . black . . . figures shambling through those hollow cities, among the floating bodies of the beautiful dead Swimmers, horrified me." Gresham bit his lip and was silent.

After a while he went on.

"There was still fighting going on around the last lighted place. I made the shark swim into it. I could help, at least, that much.

"The Swimmers fought with curved blades of light that slashed through everything they touched. They were wonderful fighters—terrible and wonderful. I never saw such ferocity and such beauty. But the Others were too many for them." His voice cracked for an instant.

"The Others were foul, degenerate, dark things," he said, and choked over the words.

"Here, drink this," Black commanded, holding a glass to Gresham's lips. Gresham drank, and rested for a moment.

"That was all," he said presently, in a calmer voice. "I watched it end. I helped as much as I could." He grinned faintly. "It was one of the Swimmers who killed the shark, finally. They didn't understand, of course. They must have thought it was just another of the scavenger fish who were gathering because of the blood. The curved light-blade sheered through it like steel—or fire—fire under water—and the shark died. Well, it was time for me to go, anyhow. I'd done all I could, then. But this isn't the end of it."

"What do you mean?" Black demanded. Then he said quickly, "Never mind. You've got to rest now. You can think it over and tell me later."

"I don't need to think. Remember what I told you when I first saw the Others? How hateful they are even on first sight? Instinct, Black, sheer instinct tells you to kill them on sight. I—I don't know why, but that's what I'm going to do next. He clenched his

fist and struck the blanket lightly.

"Extermination!" he said in his hoarse, strained whisper. "Extermination!"

A week later the *Albacore* passed a group of tiny islets lying like scattered flowers on the water. Native outriggers came out, as usual, to offer fruit and gossip. Gresham seemed to know them. He talked briefly in Kanaka, and there was much nodding and liquid chatter among the natives. When the outriggers went back, Gresham went with them.

"I know what I want," he told Black as the neurologist helped him over the rail. "I'm all right now, physically. Or as much as I'll ever be. I'm a responsible man—you can stop worrying about me. I've even got enough money put aside for what small needs I'll have from now on. Forget about me, doctor. And thanks—thanks very much."

Doubtfully, and with a touch of strange, illogical envy, Black watched him go.

The globes that once swung glowing on their cables in the abyss swing dark now. Below them the night land of the sea-bottom stretches far away into a light that shines eternally, a light no human eyes will ever see. Inside the cities which are tombs now the beautiful bodies of the dwellers float hollow-boned, bare skeletons cleansed by the wandering denizens of the sea. The dead race lies forever entombed in its dead cities.

But a race still lives among them for awhile. A dark, alien race that destroyed its masters and shambles now among the ruins it made. Death lives with that race.

Out of the immense ocean dawn above the ravening sharks come down silently, one by one, to kill and kill—and be killed. And on an island high over them, in the daylight he cannot see, a blind man sits on his beach with his strange sight focused in another world. A world of water and darkness and death.

He is not blind as other men are blind. He has a thousand eyes to see through. He had a vengeance to wreak. Some day that vengeance will be sated, when the last dark shambler dies. After that, Gresham will be content. He will give up his days then to looking at the world again through the strange, small lenses of other brains, and to the memory of beauty which he once saw so briefly, in the hour of its destruction, and will never see again.

In comparison to the memory of that beauty, all other men are blind.

THE READER SPEAKS

(Continued from page 9)

Which was a pity, as you have published of late some beautiful stories. It was the correspondence columns that let the side down with a resounding crash. The uninitiate would gain from them the impression that s/f readers—and writers—were fit and proper candidates for the nouthouse.

Congratulations on getting Finlay back to the fold. He is a fine artist and—surprisingly for one in his profession—can read. Dona's spacesuit in the first illustration to *THE MANLESS WORLDS* may be tight fitting but it is a spacesuit within the meaning of the act. Bergey—despite a slight misapprehension on his part regarding the heat, cold and anything else resistant properties of the female human skin—I also like. Sorry—slight error. For "despite" read "because of".

And that—as we say after making an announcement over the public address system—is all. Just thought that I'd get in my two bits worth.—R. M. S. Tamaroa.

Thanks, Second Officer Chandler, for your seal of approval on the recent transformation here. And let us hope your muse remains sitting on your shoulder and nodding her approval as you type out words, words, words.

With stf booming and blooming as it currently is, we'll need them, So don't stay too long at sea.

LOVE THAT CRAFT!

by Jim Wilson

Dear Editor: For several years I've been resisting the desire to write to an Editor's column. Today I find a so-called letter from one Wilkie Connor criticizing Lovecraft. That does it!

STF is my weak point but there's nothing as yet to even touch Lovecraft. My better judgment supports TWS but to that last paragraph by Connor—shotguns at sunrise!—338 West North Street, Springfield, Ohio.

As far as we're concerned you can have the late Howard Phillips Lovecraft and a bucket of buckshot at sunrise too. Any further comment, anybody?

A CASE OF SHAKES

by S. Vernon McDaniel

Dear Editor: It would be beyond my powers to describe what I think about the June TWS. All I can say is that for once I am shivering in ecstasy over your mag. Who said something about a new era? If you continue like this, I can definitely rate TWS as the top Mag of all.

I should like to "Elucidate" your question as to whether or not Bergey's photograph-like pics would outrule BEM's. No! In fact, the greatest thing that could happen to Stf would be to have a photograph of a genuine BEM on your cover. Or, at least, a photograph-like painting. Get it?

Another reason for your mag's greatness this ish is the inside illustrations. Only two by Marchioni! An all-time high! Stevens for *Boomerang Circuit!* (I rate him as much better than even Finlay.) And who is that new (?) artist who drew the ones for *The Sky Was Full of Ships?*

To continue my praise, I shall endeavor to tell you what I thought of the stories. A better phrase would be 'How I worshipped the stories!!' The only thing I did not like particularly was the novel by Leinster. Almost a space-opera. But then . . . the Novlets and the shorts (*Stories*, that is!!). Ahhhhhhhh!

About the new policy for Fanzine Editors—What about stories or poems that have not appeared in fanzines? I speak mainly of poems. That is, would you accept a suitable poem and pay for it whether it was from a fanzine or not? Pliz explain.—1010 Garcia Rd., Santa Barbara, California.

Gracious! Aren't you getting a little out of hand? When you read what a number of our other letter writers have to say about your water propulsion theory, you'll sing a different song . . . or will you?

We'll "explain" about unfanzine-published poems and stuff. The answer is NO. We had enough grief with our so-called Amateur Story Contest for years. We want someone to select them before we do. Okay?

STRAIGHT RATE

by Billie Lee Randolph (female)

Dear Editor: My first words will be used to express the fact that I think *The Reader Speaks* is vastly improved. I think all the letters are interesting, especially when their spelling leaves something to the imagination.

Secondly, I would suggest that the heroines on the covers would put space suits on. Now if I were in Joan's place and had the fortune to help my husband conquer the tryants, when told to pack I would change into comfortable, spaceworthy slacks.

The pic on page 11 was very similar to the cover, but a bit improved. I couldn't find a signature. The same for 13. And 17. Same fellow? I also like Marchioni on page 38-39. Who did the one on 55? It was awful. The one on 61, too. They seem to hide their identities, the artists, I mean. Are they by any chance, a-s-h-a-m-e-d? The Marchioni on 66-67 was good. I liked page 82, but don't know whom to compliment.

Now for the stories. I like the series. I speak of Bud Gregory and Kim Rendall. It is nice to open up the mag and find a familiar face and an old friend. I hope you keep doing it.

The BIG NIGHT was excellent. I like the thought at the last. *THE SKY WAS FULL OF SHIPS* was very undefinable. I don't think it ought to be allowed to go unrewarded. Give it some deodorant. A HITCH IN TIME was good, very good. *FROM BEYOND THE STARS* is a little far fetched. I don't think anybody could have got the thing focused like that. *YOU ARE FORBIDDEN* is my nomination for a Hall of Fame classic a few years in the future.—Rainbow Café, Buchanan Dam, Texas.

Well, Billie (female), you've certainly landed us in the enchiladas. Now we must drearily check back over all them (yes, them!) illustrations to see whether or not our judgments coincide. Well, lets go.

The Stevens pic on page 11 was the general model for the cover, so a certain family resemblance can hardly come under the heading of a major surprise. Those on 13 and 17 were also Stevens jobs. Good artist, isn't he?

Marchioni on 39 is fair enough but the creature on 38 looks like something out of Faust—you know what I mean, I hope. Those on 55 and 61 were by Napoli, a new artist who has not yet shaken into stf form but shows considerable promise despite your

beef a la mode. The page-66-67 Marchioni was okay and frankly we thought the job on page 82 was the prize of the issue. The artist's name is Rafael Astarita. Best BEM we've seen in years.

WORLD OF NULL IDIOTS

by Joe Kirschnick

Dear Ed: The Reader Squeaks is getting better and better all the time, now that the reconversion bug has bitten most of us. I especially liked Burgess' letter in the June ish. Kennedy and Hyde are men of my own heart; I too love to argue.

Just for the sake of a good argument, I shall disagree with Hyde. He says that the mind and body are different entities, and I say that they are not. Why? Because if it were, this would be a world of idiots.

Man has been living on earth for thousands of years. Ever since the beginning, man has had a mind as is proved by weapons and markings in caves, etc. Now there are a few points to prove that from the beginning of time, man and mind have been but one.

Point one. . . If the mind were a separate part of the body, then many of the minds would drift into bodies of animals (this being possible because man himself is a species of animal and a mind could find no distinction between species by outward appearance alone, the mind itself being of an alien race.)

Point two. . . The population of the world has increased a thousandfold since man first acquired his mind, and the quantity of mind has remained the same. This would mean that only one person in every thousand would be able to have a mind.

Point three. . . How strange that 100,000,000 minds have drifted across countless miles to land on our Terra. Considering that there is only one chance in sextillion multillion that a body could drift from one planet to another many light years away, then there would only be one chance in one hundred million sextillion multillion/ one hundred million sextillion multillions that 100,000,000 of these "minds" could reach Terra. Some chance!—4018 Colborne Road, Baltimore 29, Maryland.

Point four. . . We should very much like to know how in %!—*!!! you arrived either at your conclusions or your alleged figures. Go dunk your head in a bucket of decimal points, Josephus!

NO JOKE

by Joe Kennedy

Dear (hurrumph) Editor: The June *Thrilling Wonder*, suh, is well up to snuff. All soft soap aside, the mag has improved tremendously during the past year, for which congratulations by the carload. As yours truly soon discovered to the tune of two reject slips, TWS is danged finicky about upholding a high standard of material these days.

Tanyrate, there wasn't a yarn in this issue that I didn't enjoy. Especially liked Sturgeon and Jenkins. Now get some covers as adult in tone as the rest of the magazine, and, b'gosh, you are going to have a mag that'll pace the entire field.

Thanks for starting the fanzine material contest. It's a swell idea, and if it keeps rolling for a while to come, the level of stfanmag material oughta be raised considerably. Perhaps now that there's a possibility of republication in a prozine, and payment, fan hacks will be persuaded to put more effort into their stories and articles—84 Baker Avenue, Dover, New Jersey.

Nice eye, Joe, in spite of those rejection slips. We did our darnedest to be constructive though, didn't we? And keep the stories coming, as well as the fanzine contest material.

Just because we landed on spacehack epistles some time back, however, does not mean a necessity or desire for utter dehydration on the part of you and the others. We still stand ready to exchange ear for ear with anyone who wishes to take a chew out of our auricular appendages.

Merely beware of the Blue Bem!

WHO? WHY WE ARE, OF COURSE

by Rosco E. Wright

Dear Editor: Concerning **THRILLING WONDER STORIES** I have one special request: who is the editor? I have to wait too long for the **WRITER'S DIGEST** to put it out and your competitors list their editors. Both the magazines I'm proud of and those I'm ashamed of. Your two magazines are my pride and joy right up there in the big three, so how about putting your name on the contents page so we will know who to thank for the hard work?

I'm very pleased with the past several issues and consider the recent covers to be excellent on both your magazines. The June cover on **WONDER** was the best Bergey to date. Is it varnish that gives it that nice shiny coat or the brilliance of the stories shining through?

I enjoyed every story in the June issue which makes it the most interesting issue of **WONDER** in the past nine years and probably before. I was ignorant before that . . . that is insofar as science-fiction was concerned.

The three longer stories take first places thus: **THE NAMELESS SOMETHING**—was different and by the way Marchoni's pick for it tickled me pink. I'm getting so I like his artwork.

THE BOOMERANG CIRCUIT—good ideas, good plot, good story—good writing—good for my money.

THE BIG NIGHT—I don't seem to recall author Hudson Hastings; however I will henceforth. This story was a superb tale of the men in the changeover of the new for the old.

I don't think it is fair to say one of the four excellent short stories was the worst in the issue. **THEODORE STURGEON** is the most skilled writer you have. I enjoyed his **THE SKY WAS FULL OF SHIPS**, also the other surprise ending story by James MacCreigh, **A HITCH IN TIME**. The other two shorts: **YOU ARE FORBIDDEN** and **FROM BEYOND THE STARS** were nice ideas though there wasn't so great an impact in the climax.

I'd better cut this short, so: I'm glad Sergeant Saturn has shipped over into the inactive reserve; I like artists Napoli and Lawrence and the rest too. I'll see what can be done for you on this great new idea of republishing good material from the fanmags. If my stuff won't do someone else's will.—Box #191 Toledo, Oregon.

The only answer available to your opening question is a large editorial **WE**. Let's not be too personal, shall we? Nice comment on the June issue—at any rate **WE** liked it. Why so many of you lads seem to think that a long story must necessarily be better than a short one eludes us. Please elucidate.

Just call us wegotists, will you? And dig up some fanzine contest entries.

WHO'S OLD?

by Don Wilson

Editor, old editor: The June TWS arrived on the stands yesterday as a distinct surprise. I dunno why you send it out so much earlier in the month than **SS**, but I have no complaints. With so many mags coming out when they darn well feel like it, your mags on time are welcome.

With that out of the way, I shall get down to the

stories. I think YOU ARE FORBIDDEN! was about the best. The classic of the year—at least so far. You have three more chances to produce classics in '47.

2. FROM BEYOND THE STARS—what's this, the shorts taking top honors? 'Tis unheard of, obviously. However, it is happening, at any rate. Jenkins turned out a honey of a yarn here.

3. THE SKY WAS FULL OF SHIPS. Sturgeon does it again. I don't think the guy is capable of turning out a poor story. He never has yet, anyway. A beauty of an ending on this yarn.

4. THE NAMELESS SOMETHING. We are down to fourth place and still in topflight stories. What goes on here, anyway? . . . the next Gregory yarn will have to go some to beat this one.

5. THE BIG NIGHT. This can't be a first story, surely? Hudson Hastings must be somebody's penname. A good yarn, anyway. Let us have more like it.

6. A HITCH IN TIME. What is James MacCreigh doing here? Long time no see! While rather time-worn, the tale was enjoyable. . .

7. BOOMERANG CIRCUIT. A far-above-average story.

The cover was above the average too. While Bergey's subject matter may not always be in the best of taste, his workmanship is above reproach. Now that he is beginning to use better color schemes, he is emerging as a top artist. If he would do space ship covers, he would be THE top.

Interior illustrations: 11—wonderful. 13—magnificent. One of the best Lawrenstevens has ever done, which is really something. 17—swell. 38-39—arggg-hhh! 55—good. Napoli? 61—also good, also Napoli? 66-67—mediocre. 82—good. 89—another fine pic. You have undoubtedly gathered that I like Stevens, and that I dislike Marchioni. You have gathered correctly.

Well, if fans are not blind, they are going to begin rating your mags a bit higher than they have been. TWS is now #1 on the list, bar none. While SS may not cop #2 place, it is well on its way there. Keep it up!—495 N. Third st., Banning, California.

Well, what can we say? For once we are speechless. Can such praise be deserved? Why, of course, chum, of course. In your conclusion anent magazine ratings, what others are you speaking of. Are there any? We think we should know.

BUNGE-HO!

by W. Homer Bunge

Dear Ed: Sorry. No Squawk. Have read TWS off and on for years. Intend to continue. VAST improvement noted in recent issues.

Why not promote correspondence between readers? Some interesting pen-pal friendships spring up this way. It would help to know which of the borderline names were actually feminine and which were masculine.—1325 Sweeney, Las Vegas, Nevada.

Very well, W. Homer, we hereby promote you to the spot recently vacated by a certain interplanetary non-com. Wearing his stripes, you and your pen-pal-ships should go far. But from what we have heard about Las Vegas lately, who needs pen pals there? Stripes go well in the pen at that, though.

STRUCK OUT

by Peter Leyva

Dear Editor: Seeing that the baseball season is upon us I'd like to rate the April, 1947, issue in a horsehide fashion.

TEAMS: Authors of T.W.S. vs. P. Leyva pitching.

UMPIRE: P. Leyva (the poor guys ain't got a chance).

BATTER	ACTION	TOTAL RESULT BASES
Wm. Fitzgerald	The Gregory Circle	Home run! . . . 4
George O. Smith	Quest to Centaurus	Two base hit! . . 2
Murray Leinster	Skit-Tree Planet	Bunt single . . . 1
Henry Kuttner	Way Of The Gods	Base on balls . . 1
Bryce Walton	Victorious Failure	Pop-up to infield 0
L. Sprague de Camp	The Reluctant Shaman	Foul ball and strike out . . . 0
		TOTAL 8

Out of a total of six batters who had it within their power to amass a total of 24 bases, I find that they pounded out against my fire-balls of criticism a net aggregate of eight bases, for a percentage of .333—not so bad.

I realize that I lay myself open to many lively fire-balls of your own, by the above rating, my dear dechironned ex-sarge, but go ahead and hurl away! I'll knock 'em over the fence!

I note that in, "The Reader Speaks," there lately seems to be a veritable deluge of metrical composition. Not to be outdone or left behind I hereby submit my crude attempt at Edgar Allan Poe-try.

The Rav'n Editor (Apologies to Edgar Allan Poe)

Once upon a midnight dreary, while I read on weak and weary

In many a Thrilling Wonder by the score,

On my door there came a smashing, as of someone gently bashing,

Crashing in my chamber door. Only that and nothing more.

O'er my doorsill in there staggered a beaten man so gaunt and haggard

That he scared me to the core.

"Who are you?" I cried in terror. "You are but an optic error.

Too much reading makes eyes sore. Only that and nothing more."

"I'm ye ed of Thrilling Wonder, and the job's my life's big blunder.

Would I had to live it o'er.

For the fans, they drive me screwy with their insults, five and hooley

I just barely live, senior. Only that and nothing more."

"Ah, I see that you're a scoffer! Don't believe me? Then I offer

You a job you can't ignore.

Perhaps you can stand the howling and the fans' incessant growling,

And the pay is bucks galore. Only that and nothing more."

"Nothing doing!" quoth I. "Fellow, jobs like yours make me turn yellow

Out, or you will get what for!"

"Adios, amigo!" he sobbed. I dreaded to see him for the window headed

(I live on the hundredth floor.)

All they swept up was one lota. Only that and nothing more.—321 South Victoria Avenue, Atlantic City, New Jersey.

Sitting here with malice toward none though at times I am a bored one

Wishing I were swimming at the shore,

On my desk I find a verselet, moving fast from bad to worse yet,

Making mental bunions sore. Only that and plenty more.

As I study each non-scansion, every line that needs a stanchion,

That emerged from my desk drawer,

"What the heck!" I cry in horror. "If from Poe you needs must borrow
Why give me this hideous chore? I could do with far less more."

Though I'm ed of THRILLING WONDER,
my most idiotic blunder
Has me now upon the floor.
In a moment that I curse, I said I would
answer verse,
Thinking I'd get three or four. Only that and
nothing more.

Yes, ye editor is ravin' since he has no bomb-
proof haven
And his boast he must deplore
Scanning verses he can manage while at
ease on his empennage
But the fifth makes him implore, "Only four,
my boy, no more!"

For to match the frantic meter I must take
me some saltpetre
Some nitre and the charcoal I abhor
And if someone would just give me a match
to swallow no more on this bad old earth
would I wallow
And they wouldn't have to sweep up after
me. No, sir, not any more.

If the beat of stanza five fails in part to
match yours, brother Leyva, at any rate it
was a try—see?

WRZOS SPEAKS!

by Joseph H. Wrzos

Dear Editor: I am forced to break my silence of five years, during which time I offered no criticism or suggestions to your publication, Thrilling Wonder Stories.

Henry Kuttner's "Way of the Gods" is the best novel he has written so far. The characterization, plot, and description were very well done. In issues past, "Sword of Tomorrow" and "Call Him Demon" bring to mind some pleasant hours of reading. Please have Mr. Kuttner continue writing such well done stories for TWS.

Murray Leinster's stories need no praise. All of them were very interesting and well done. Especially, "De Profundis" which was a classic.

As to the abandonment of one Sergeant Saturn's tedious wit, all I have to say is BRAVO!

Now for some suggestions. I would like to see some work by Donald Wandrei, Clark Ashton Smith, David H. Keller & Frank Belknap Long. Especially Mr. Keller, whom I met not so long ago. He impressed me as being still capable of turning out good science fiction. Wandrei's "Black Fog", which appeared in one of your 1936 issues, should be sufficient evidence as to what he can do.

How about some Paul covers and interiors. Finlay's illustrations in the last few issues are a sight for sore eyes.—695 South 20th Street, Newark 3, New Jersey.

Your praise of Kuttner, Leinster and Finlay sounds a welcome triple chime. As to your suggestions re Wandrei, Smith, Keller and Long, we'll run anything purchaseable they choose to send us.

A LIN O' TYPE

by Lin Carter

Dear Editor: Before we dissect the April ish, let us pause at the cover. At last, Bergey has done a truly good cover. No BEM or brawny hero, just a winged gal flapping along (she had a well done face, too) with a couple frostbitten cyclones in the middle distance. Goody!

Kuttner really presented a swell novel this time. As usual. A mite unrealistic, but delectable. The battle with the Mountain in the last chapter, was the best part of the whole thing. Some wonderful description, there.

Quest to Centaurus took second place. A clever yarn; quasi-humorous, one might say. Who knows? Maybe that's the way Kilroy started.

I doubt it.

Of the other shorts, Victorious Failure and The Gregory Circle were the outstanding ones. VF was a yarn with some punch to it. The others were hackish. I hate to say it and Chaddo will hate me for it, but de Camp's tale was downright pee-utrid. No, no, boys! Not the blasters. . . . Aggh!

Your editorials are getting real lively. This last 'un was a piperoo! 'Fraid I can't go along with you on this more horrible weapons the better 'dea. Nations are still going to blast the other fellow, before he gets a chance to blast them.

Now for the letters: Why were the greetings cut off all the letters? Are you dropping the "Sarge," pseudonym? I think that is going a bit too far.

Rick Sneary had a good letter. I like his rating system also, tho it's kinda complicated. Evangeline Brunson had a sharp poem in that ish.—865—20th Ave. So., St. Petersburg 6, Fla.

Who was that non-com you mentioned, Lin? Outside of that uncalled for reference a nice letter. Let's hope you're wrong on the horrible weapons business. Somebody's got to draw the line somewhere.

FINNAN CHADDY

by Chad Oliver

Dear Editor: The Easter bunny, no relation to Harvey, galloped in with the rare combination of TWS and time off from collich. The two fused, and you are confronted with the usual grisly result.

It seems that the revolution is beginning to make itself felt in the fiction. Certainly, the trend away from slam-bang epics of space piracy, homicidal apes, and ma-a-a-a-d geniuses is more than welcome. The tendency, however, to bend over backwards in the other direction calls stridently for a steady hand at the helm. Let's see what we've got this time.

First place to Murray Leinster and The Boomerang Circuit. Ideas fairly dripped from this one, and the writing was effortless and enjoyable. Only once, though, did Leinster serve up the kind of writing of which he is capable: the effective contrasting of capital and labor on Spicus Five. I also think that all these revolutions are being presented from their least interesting viewpoint. Instead of all the modified Captain Futures, how about one from the slant of the common man caught up in the stream of events? The three Kim Rendell tales should have been one long novel, in my opinion, and told sans Kim Rendell.

The Big Night was better written than the Leinster tale, but the theme was old and corny. Spaceships, I feel sure, will not be manned by transplanted crews from Mediterranean freighters. Hudson Hastings, whoever he may be, reminds me of one Bolling Branham—remember The Lotos Eaters? He has a knack for figurative writing—if he is not simply one of The Boys in disguise I wish he'd try his hand at a more worthy idea. Still, 'twas a good tale.

The shorts were uniformly good, although there was nothing to top last issue's terrific Juke-Box. There was a yarn, author's name to the contrary! Loved that ending. Currently, I like Sturgeon's The Sky Was Full of Ships very much, although the dialect got a little out of hand.

William Fitzgerald and Bud Gregory are direct

Ineal descendants of Tom Swift & Cohorts. Gad, and another one next issue. I thought I hated space pirates, but they have competition now. Aha, I see that little red pencil. . . .

I have given up all hope for the cover.

TWS is decidedly headed in the right direction. Jest watch them side-tricks, Cap'n.—1317-25th Street, Galveston, Texas.

We'll keep our slightly bloodshot left orb peeled, Chad, old boy. Sorry you feel as you do about Kim Rendell. Come to think of it, we don't know exactly why—perhaps it's because our middle name used to be Kimball before we got fed up with it and chucked it out on its double-ell.

LEVELLED

by Virgil S. Utter

Dear Editor: The June TWS was strictly on the level with us fans. There was not one single bad yarn in the whole lot. And to top that, the shorter stories outshone even old standby Leinster. Like so:

1st: *The Big Night*. Hastings had me on the edge of my seat more than once for fear his story would degenerate into a typical space opera, but in the end he proved himself to be one of the most capable writers of this type of story. Only other I know is Heinlein.

2d: *You Are Forbidden!* Although I never expect Shelton to surpass *Darkonia*, this was a fine piece of narrative. The Psychological angle is in keeping with the trends, I know, but please don't overdo it.

3rd: *The Sky Was Full of Ships*. Sturgeon is a master at this sort of thing. Hope you get him back more often.

4th: *Boomerang Circuit*. Despite the excellent writing, Mr. Leinster was simply nosed out by overwhelming odds. The plot was good, but think this should be the last of the series—before it wears out!

Fitzgerald, MacCreigh, and Jenkins come in 5th, 6th, and 7th, respectively, and it was a tossup most of the way as to who would cop the top rungs. Give us another issue like this and TWS will be THE leader in the field.

Another thing, the illustrations are picking up tremendously. Even the cover was good which is saying something. Only thing wrong (!) is Marchioni. Hang on to Napoli!

Hope you enjoyed the soft-soap, but it's fact, sheelp me!!!—117 4th St., San Francisco 3, Calif.

Fact, is it? Good, good! Thanks a lot, Virgil. We agree with you about Sturgeon, but he has buried himself in the country to write a book or something equally idiotic. Oh, well, you know these writers. No stability. . . .

SNORTS

by Jerri Bullock

Dear Editor: Just now finished this ish of TWS. Leinster's novel was the best, 'cause I'm prejudiced in his favor of course. The Gregory yarn took second. From *Beyond The Stars* was good too as were all of the stories this ish. I'm glad Murray rated two stories this time; one under his real name, Will Jenkins, I noticed.

In the Reader Speaks I noticed that Norman Splere called down Smith (Juke-Box) for attributing a line of Oscar Wilde's to Omar Khayyam. Here's something to quibble about. I hear tell that Omar wasn't recognized for his Rhubiyat until Oscar Wilde read it and was impressed. He quoted from it and used much of it in his work, he felt so deeply about it. Brainy little thing, aren't I? But seriously: If not for Oscar no Omar there would be.

Do you think, Sarge, if I got down on my lily-white knees you could print my letter, hm? I've written and written, after reading each ish, but not one of my

letters do I see. Even after you begged the female sex to contribute to the mail bag! Whasamatta, Sarge, my slip showing?

Getting back to the Mag: Hold your breath, I'm going to knock your ears off with this one. I think Bergey's cover was terrific! Sitting here looking at it as I write, I say it's the BEST I've ever seen him do. Kim getting ready to do that tailspin is so realistic, I expect him to drop right off that cover!

In closing I will say:

In each ish I like to read

Of Oliver, Berry, Boggs and Sneary;

But please, Sarge, some new faces;

'Specially mine to keep me cheery!

Corny, I know, but maybe it'll work!—15857 Paseo Largavista, San Lorenzo, California.

Okay, it works, 'tis corny too

And let me tell you this.

One more bad poem make us blue

By this sweet San Lorenzo, Miss,

With many a moan and Bronx bazoo

Ye Ed emits a hiss

And rolling up shirt sleeves ecru

He, "Okay there, sis,

"I'd like to make a rendezvous

"And lie in wait with sharpened kris."

NEOPHYTE

by Hugh McInnis

Dear Editor: This is the first time that I have ever written to the reader's column of any magazine so I have no idea of having this letter published, but I still would like to tell you what I think about your magazine.

As far as the stories are concerned it is one of the best in science fiction and since your recent conversion I think that your department is second to none in any magazine that I have seen—and I read any that I can get my hands on.

Until recently I wondered what a B.E.M. was but I was relieved to find as I read through one of your last issues but one thing still bothers me. Please! What is or are S.T.F. In every issue someone mentions it but no one ever tells what it means so it would ease my mind to find out what it means.—c/o Y. M. C. A., Warren, Arkansas.

Dear me! What is stf or S.T.F. as you so neatly put it? That, Hugh, me lad, is a very moot question. All over the country fans are fighting it out, tooth and nail, hammer and claw. Actually the initials are an abbreviation of scientification—which is science fiction gone fancypants.

There are those who claim it must have a logical base in science as we know it today. There are those who insist that any inexplicable setup which might well belong to the future be rightfully included. And there are those who employ the initials to embrace the entire sweep of fantasy as well.

Personally we don't care which line our authors hew to—as long as they produce stories of the type and quality fit to appear in this magazine and its companion, **STARTLING STORIES**.

Anyway, you know what a BEM is.

TRAPPED B' GOSH!

by Ron Anger

Dear Editor: Way back in the Summer 1945 issue of TWS that fine author (Outpost of the Eons) and fan,

THRILLING WONDER STORIES

Dirk Wylie wrote a rather vitriolic letter to TWS. I suppose we all remember that issue because of Jack Vance and his unforgettable first story, *The World-Thinker* and Murray Leinster's scientific treatise *Things Seen By*, but in the last few months I have recalled it also because of Dirk Wylie's letter.

On the assumption that The Sarge never looks at back issues (the Bergey Blotches being too much for even him) here is what your (then) fellow Sergeant said: He pointed out that when TWS first started "its dignity was a cumbersome thing"; that by half a dozen years or so the mag "had dropped its smug quality and was on a sensible editor-reader plane. Intelligent discussion was encouraged and one could read the letters without gagging."

D. W. then went on to a rather savage attack on the present ('45) reader section, calling it "sheer puerility, etc." in a real temper, then suggested that you cut out "this Sgt. Saturn nonsense" and return to a "sensible" letter section. The Sarge's reply to this blast was one that I thought particularly good.

It went like this: "And are you certain that the type of department you propose, with the bulk of its joie de vivre amputated, wouldn't be pretty close to the old ponderous and cumbersome and smug WONDER STORIES you affect to decry?"

Think that over, Sarge (or should I say Mr. Editor now?)

After that meditative blast at Ye Sarge here are a couple of stanzas in his defense. They are: Who the XXXXXX (CENS.) wants trimmed edges? They make the pages easier to turn as one fan pointed out and they are a part of the grand old tradition of stf. Don't think that just because stf is always on the move towards the future that it hasn't traditions.—520 Highland Avenue, Toronto, Ontario.

Sir Editor to you, Ronald! Oh well, we'll try not to be too stuffed shirt. But oh! How that space lingo got us down.

SOUTH GATE HAS ITS SAY

by Rick Sneary

Dear Editor: May I offer my congratulations on a job well done. After a few false starts you have finely turned out a good issue of TWS. Not perfect, of course, but a lot better than it has been in a lot of years. Infact I might say better.

The cover was as good as we have come to expect. And to add to our joy Bergey broke down and gave us a blue sky. The inside illos were good. Even "Poor Marchioni's" wasn't to bad.

The stories were not classics, but then they were not flops. They were interesting, and not hacky. De Camp's fantasy (funny-fantasy) was very good. Hope we see more of him. And Fitzgerald is almost as good as Padgett. All in all you had a well mixt diet, from stf- to fantasy. And just enough of each.

The thing I'm really glad to see improved is the Reader Speaks. I'm sure glad you aren't cutting the letters to nothing like you did in one issue. But now a little comment.

To begain, the answer to Leyva's question. If the gent from 1947 time flivver reaches 2047 it will be quite easy for him to see. Layva's theory about not being able to see because the light from sun hadn't left yet over looks one thing. The sun will we hope be still shining 100 years from now, and light will be still coming from it. So if our hearco can reach 2047 he can use the sun light that left the sun then. Whould indeed seam that reader Leyva has read few well explained time stories.

Wile on the subject of time travel I'd like to bring up a question of my own. In all time stories the TM reappeared right in the same spot it started. Why? According to theory a time-machine travels through the forth dimension (which is still TIME, nomater what people think.) OK, so why should the law of gravity effect it. Why should it follow the Earth around. Why wouldn't it place the machine exactly were it was? Which would ofcourse would be some were in space? You got any ideas editor old boy?—2962 Santa Ana st., South Gate, Calif.

Re your question on time-travel, Rick and return from same. We're turning the whole matter over to George O. Smith, who

has thought of more possibilities in this facet of science fiction than any other eight authors, with the possible exceptions of four Murray Leinsters. The whole question is the finest antidote ever dug up for the late Robert Benchley's "How to Sleep" opus. Start exploring the laws of infinite possibility, and you do a fine atomic fission job on yourself without need of a bomb. We haven't bothered to correct your spelling, Rick—you misspell so beautifully! Next please!

THE WARRIOR LAMENTS

by Arthur H. Rapp

Greetings: I return to the United States and civilian life, after too long in far-flung places, which ought to be flung a bit farther. Drooling a bit in anticipation, I rush to the nearest magazine stand and intimidate the proprietor into producing TWS from beneath the counter.

Eagerly I prepare to discover the wonderful postwar world which has had a year to develop by now. What new, exciting adventures lurk in this slim volume? I glance at the cover.

For a moment I have the awful feeling that time has turned backward and my draft board is once more breathing down my neck. It can't be! Must we still have precious covers occupied by females in bathing suits, meeting extraordinary situations with utter boredom?

We must, it seems.

But look—here is a lead story by Kuttner. Surely he has found a new plot for his postwar stories?

Well, I should have known better.

After reading Smith's "Quest to Centaurus" I quietly slunk out of the house and gnawed down a couple of oaks, beaver fashion. The story is quite good, but WHY drag in Kilroy in a futile attempt to be timely? Or is this one you've been holding since '45?

And so on through the mag. Only one thing saved me from rushing out and re-enlisting: "The Gregory Circle" which has a fresh slant, a novel plot, excellent writing, and promises to begin a readable series. Perhaps Fitzgerald is the vanguard of that crop of postwar authors who, so the STFmags gurgled a few years back, would send fantasy soaring to new and undreamed-of heights.

I hope so.

If the stories sag, at least the readers are setting a better standard—or has your ability to cull readable letters improved since you laid off the Xeno? As long as so much fan interest is evident, I'll not lose hope.

Postwar era of STF, wheeah is y'all hiding?—3120 Bay Street, Saginaw, Michigan.

Okay postwar era, you can come out now, Methinks, brother Rapp, that despite the appropriateness of your name, you must have been coloring your anticipation with rose madder. Leave us pray you get used to us, 1947 version, in time. Honest, fellow, we're in there trying.

A PATCH ON McDANIEL

by John W. Patch

Dear Sir: A very good issue! April TWS, I mean. "Way of the Gods" gets first place, with "Quest to Centaurus," "The Gregory Circle," "Skit-Tree Planet," "The Reluctant Shaman" (This one is not STF, but who cares?), and "Victorious Failure" following in that order. No special gripes on any of the stories.

There's one minor point that always bothers me when I read a "winged human" story. Seems to me I read somewhere that a bird's tail serves as a sort of rudder and elevator assembly. And these winged humans never seem to have anything to perform that necessary function!

You asked for some sane answers to S. Vernon McDaniel's suggestion as to running space ships on water. Well, assuming that the explosions would be of sufficient force, I see only one objection to the scheme. There may be more, but I don't see them. This is my point: McDaniel suggests that the water formed in the explosion be returned to the ship's tanks, and used over again.

Now let's examine the action of a rocket, Mr. McDaniel. You have an ignition chamber. You explode the fuel—burn it very quickly, that is. The particles of gas, vapor or whatever the product of the burning happens to be, depart from there at a high rate of speed, via the "rocket tube." The "kick" from the rapidly departing particles is transmitted to tube and thus to whatever it happens to be fastened to—in this case a space ship. All well and good, so far.

But now, you're going to catch those particles on the way out—with something else THAT IS ALSO FASTENED TO THE SPACE SHIP. There's the catch. Catching the particles means stopping them. And when they're stopped, they're going to impart their "push" to the thing that stops them. And since this thing is fastened to the ship, and the "push" will be in an opposite direction to the previous "kick," ye space ship will just make a lot of noise and go nowhere. Get it?—*New Concord, Ohio.*

Well, McDaniel asked for it and he's getting it. As for your query on rudders, tail feathers or what—all for winged humans, how do you think the rhumba was born?

THE SCHOLAR'S PET

by Nickey Winton

Dear Editor: I am a girl in high school, a Junior to be exact, and I would like to add my two cents of praise to your super magazine. Believe me, it's not the cover I love, but just the same. . . .

I usually read it from cover to cover, the exception being—well, you know. I especially enjoy stories by Ray Bradbury and Jack Vance. I'm just getting to know my authors.

Could you possibly let the writer of THE GREGORY CIRCLE, William Fitzgerald, know that I owe him a vote of thanks for helping me pass my Chemistry exam? He's given in that story simple explanations for some of the most complicated theories—made more confusing in a Chem textbook.—Route #1, Box #18, Upland, California.

Bless your little heart, Nickey, we certainly shall. What with recent letters from Harvard, Eton, New York State Normal School and now yourself, we are beginning to feel like carrying an umbrella except when it rains and departing for the office with our trousers neatly folded over the back of the bedroom chair. Embarrassing, isn't it?

LONG TOM

by Tom Pace

Dear Editor: More Kuttner—and who can get enough. No one alive can match his yarn spinning.

And the illustrations—Thomas I presume—wonderful. This is something! An artist who almost matched Finlay. Can he do covers?

Second best yarn this trip is Leinster's SKIT-TREE PLANET. A very good piece of unusual stuff . . . the most original tale of exploration on an alien planet I've seen in quite a while. Morey's picture was good Morey but not good stuff.

Third, Fitzgerald's GREGORY CIRCLE. Why don't more people write stories like this? No comment on Marchioni's pic.

Smith's QUEST TO CENTAURUS started out well, warmed up and yet left an unsatisfied feeling at the end.

VICTORIOUS FAILURE, a breath, via Walton, of the Olden Days of fantasy, and RELUCTANT SHAMAN by de Camp slide in next.

As to the letters. . . . Rick Sneary thrilled me—

thrilled is the word—when he mentioned UCLA's class in Astrognation. Quite a few Floridians this issue, eh? Now wait a moment, W. D. Bayle—cosmic rays the result of spaceship drives . . . or . . . whose? I'll feel much better if nobody answers that for awhile yet.—*Brewster, Florida.*

Pace, go out and rent, hire or purchase a typewriter if you want another letter printed here. Your handwriting is worse than any that ever appeared on any wall—and I'm including fences. Where did you get the idea Wilbur Thomas illustrated WAY OF THE GODS? That, my fine and thoroughly defeated friend, was Stevens, none other.

Run down to the nearest alligator farm for a quick dip, We'll be along just a little bit later.

NO TELEGRAM THIS

by Stilly Franklin

Dear Decommissioned (SARGE) Editor: I have been reading your magazine off and on or rather on and off for the last three years but this is the first time that I have ever attempted to write a letter.

I have just read the latest Thrilling Wonder Stories and I think that the best story is "The Gregory Circle" by William Fitzgerald. I hear that this is a first of a series, good, good, good, "Way of the Gods" by Kuttner comes in second—too much talk and stories on mutants, already a new subject worn thin . . . what have they got left to write about? "Quest to Centaurus" incorporated a 20th century joke into terms of the future and was fair. The shorts were mushy as usual but I liked Victorious Failure.

As usual, I liked the readers' column where the reader spoke until you started cutting with your red pencil and your reformed Xeno. Now the reader has to send telegrams.

It seems to me that some of your old stories are a lot better than the new stuff. Do you have any old issues stashed away, awaiting the call of some faithful reader? If not, as you inform some writer in every issue, could you tell me the names of some of the fans who have written in your columns that they have an over-abundance of the drivel and would be willing to part with them for a palm crossed with silver or brass, however the situation be.—Route number 6, Benton, Kentucky.

Sorry, Stilly, our back issue situation strictly isn't. Watch the column for other fans with surpluses.

COBWEBBER

by Wallace Weber

Dear Editor: I imagine you have Bergey under a doctor's supervision after the cover he put on the April issue. The thought of a blue sky on the cover of a science fiction magazine is almost too much to bear! Worse than that, the hero and BEM are missing—or were those two daggers in our feathered friend's hands a clue to what became of them? No, who ever saw a BEM with red blood? At any rate the cover was a pleasant change.

The stories this time, with the exception of "The Reluctant Shaman," were really good. This little gremlin fairly drooled joy all over the place after the first two stories. My mother is getting to hate Kuttner and Leinster since the house is quite messy after I read a few stories by them.

Now for the letter section. So you still want subjects for discussion, eh? Well here is a problem involving the good old law of conservation of energy. Suppose a spring is wound up and put in a container that wouldn't melt. Now suppose the container is heated until the spring melts in the case. Now let us cool the container. The spring is cooled into a solid once more, only it is all welded together and won't unwind.

What has become of the energy put into the spring while winding? Even a genius like Chadwick Haight couldn't figure that out!

I think I'll close while I am still healthy.—Box #858, Retzville, Washington.

What has become of the energy, Wallace? Didn't you eat a Welsh rabbit the other day. Of such stuff dreams are made. And what dreams!

UPGRADE

by Millard Grimes

Dear Editor: Your mag is definitely on the upgrade. I noticed a big improvement in the letter section this ish, the main thing being that it was longer. Keep it nice and long. Everybody turned out pretty good stuff in their missives, but as long as you are cutting the letters, try to keep away from repeatedness in them.

I even notice improvement in the cover. Bergey really did a swell job, especially on the girl. A little less wordage on the thing and it might have been memorable. How about another spaceship front.

Finley was better than usual. I say that because sometimes the "old master" doesn't strike me as being so hot. If you'll look hard at some of his pics, you will find that the figures are out of proportion. You wanted controversy in the column, and—that simple statement should start some. Finley's good all right, but sometimes I am inclined to think that he's slightly over-rated.

Morey used to be good and is showing up nicely again this time but try to get Marchioni on the ball. Get him away from people, maybe he'd do better on machines. More machine pics are needed in the mag anyway.—2307 10th Street, Columbus, Georgia.

You've given us an idea on Marchioni. From here on we shall ask the art editor to have him confine himself to drawing technical portraits of Russian oil. Oh well, it's an idea, isn't it? And it's not people, whatever they are. A new kind of BEM, maybe?

DULL STUFF

by Lou Sherman

Dear Sar—MR. EDITOR: Being a reader of STF for a little more than one year, I have decided that I know enough to write a letter. Maybe, in a few years I will equal Chad Oliver's gripes or maybe even the mighty insults of the old master Joe Kennedy.

As for the cover, what the h— happened to Bergey? The dame's eyes are popping out of her head and her lips are as big as an ape's. And those dripping knives, brr! I always liked Bergey, but this is a thing, not a femme. Shame on you.

Ratings on the yarns. I insist on rating them with Xeno Jugs.

WAY OF THE GODS by Henry Kuttner, another Kuttner masterpiece. But why is he repeating the Gorgon's stare from his DARK WORLD—10 Jugs.

Quest to Centaurus by G. O. Smith. Well I never! Kilroy is STF. You never can tell. 9½ Jugs.

THE GREGORY CIRCLE by William Fitzgerald, no comment. 8 Jugs.

SKIT-TREE PLANET by Murray Leinster. A new idea, but swell anyway. 8 Jugs.

VICTORIOUS FAILURE by Bryce Walton—only 2 Jugs.

THE RELUCTANT SHAMAN by L. Sprague de Camp. This is cute but is it STF? There's no Science in Shamans. 3 Jugs.

THE STORY BEHIND THE STORY. Swell. Keep it up.

Illustrations are poor. Say, how can you tell who drew it? Or should I say them?

THE READER'S YAP. With great sorrow I see the Sarge leave us. Goodby Saturn old friend; old pal, old fellow Xeno absorber. Best letter—Oliver. Next Roa Anger. A cute poem from Brunson.

Note to Lin Carter. I AM EDEN will never equal THE SWORD OF TOMORROW or DARK WORLD. These are the best Kuttner ever did and I don't want them connected with trash.

That's all now, by, by all.—1990 Coney Island Avenue, Brooklyn, New York.

If you happen to run across a she-ape with lips like Bergey's winged creature, lead us to her—or vice versa. Incidentally, in your comment anent SKIT TREE PLANET, you say it is a new idea but swell anyway. I suppose you vote the straight Republican ticket too. Or do you merely collect moth-eaten conceptions?

TEN-STRIKE

by Patti J. Bowling

Dear Sir: I nearly fainted when I saw the April issue of TWS. Blue skies! Bergey is calming down, goody, goody. The cover was excellent. I wish I had the pic without the wording on it. Why? Well, I'd frame it.

Now on to TRS. I heartily approve of your sentiments about more horrible inventions. Seems as if fear of retaliation is the only thing that'll keep nations in line. Love of their fellow-men doesn't seem to do it. So, the more horrible the invention the better.

T. E. McCourt of England has a point in wanting a general improvement, but he forgets that for every story he likes there might be ten or more who do not like it, and vice versa. One cannot argue with the personal tastes of another in anything, whether it be fiction, clothes, food, etc. I, for one, appreciate an editor's task. He can only hope to please the majority, or rather a goodly percentage, of the readers.

If he could pick stories, articles, etc., that pleased each and every reader he'd be worth his weight in gold every month to his employers. I, too, and I believe, all fans, would be glad to see TWS and SS improved in many respects. However, please don't throw out all of the liveliness of TWS. I'm happy the double-talk is gone, but there is still a friendliness and well-meaningness between yourself and the fans.

This atmosphere of friendliness can be found in only SS and TWS. Please keep it that way. We may not like the stories or even the whole magazine, but if we didn't like something about it we'd stop buying it and writing in.

Since you've evidently decided to relegate Sarge Saturn to the grayness of limbo I'm stuck as to what to name you, rather call you. Sir is so formal. Anyhow, I agree a hundred per cent with your comment on George Ford's letter. I far prefer the present day science-fiction to that of the past.

There are some good time-tested stuff of years ago, but in reading it I find that it fails to hold my attention. Usually the stories are overly wordy, stilted and have little action. I'm for the present crop of stuff writers and those to come.

McDaniel has something in his idea of using water to propel space ships. If my memory serves me right such an engine has been produced. However, his idea of converting the heat of the sun into electricity (the electricity to be used in the electrolysis of H₂O) is kind of off. It is true that one form of energy can be transformed into another form but I doubt seriously if the heat of the sun out in space would be sufficient for the process of changing it into electricity; or even if it should be practical to use the sun's heat the equipment needed to catch it would be monstrous.

TSBT's was good as usual. It's always interesting to find out where and how authors get their ideas. Do wish they would elaborate even more fully but will gladly take what's offered.

Now on to the stories. Top place goes to THE GREGORY CIRCLE, by Fitzgerald. An excellent story on all accounts. Well-written, good characterizations and above all, plausible. Am looking forward to more stories by Fitzgerald.

I enjoyed reading WAY OF THE GODS by Kuttner. However, it was hazy in spots. Wish he had elaborated more on Sam Brewster's strange power and how he

used it. Kua and Byrna were not well defined at all. Kua and Byrna were confused in my mind until the very end. Also, there was no explanation as to why Elle should be the leader of the rebellious band. It isn't often that a woman is capable of being the leader of a group of men, and frankly from the story Elle was not a very strong character. Illustrations for the story were okay though rather too dark.

QUEST TO CENTAURUS by G. O. Smith was good until Weston got to CENTAURUS then it laid an egg. Of all the dopey endings, explanations of motivations and silly logical reasonings I've never seen before. The illustration was okay but not brilliant by any means.

Leinster's **SKIT-TREE PLANET** was a nice little story but there was absolutely no reason or explanation why this one sole survivor of another race should bother to plant the skit-trees or for what the skit-trees were used. Illustration wasn't bad.

VICTORIOUS FAILURE by Walton takes second place. Interesting, well-written and sound psychology. The illustration for the story was the best in the magazine.

THE RELUCTANT SHAMAN by de Camp was humorous and I enjoyed it but it stopped at a most inappropriate spot. Left too many questions unanswered. Would have been much better to have made it longer and resolved the various situations. How about a sequel? Illustration was okay.

That about does it for this issue. I do enjoy the magazine and only wish it came out more often. Adios, for now.—137 Eade Avenue, San Antonio, Texas.

How hot do you suppose it gets in space? There is something for you gals and guys to mull over. According to recent theories, there are hunks of space which could melt bronze. As for a woman leading a group of men we cannot subscribe to your negative opinion, Patti. We can't imagine, say, Lana Turner doing anything else—or has my alleged sex gone utterly to the dogs?

LAST OR FIRST?

by Al Rosen

Dear Dinah: Here is my last try. I have written many letters. Most of them have gone to you. Not one has been published. So, as I said, this is my last try. The April ish smelled. And just because I live in Canada DOES NOT mean I'm an Indian. The Reluctant Shaman brought on that crack.

You wanted someone to tell you about Canadian fans. You will be surprised to hear that I alone have initiated at least ten of fans directly and indirectly. It was a hard job and I'll leave it up to you to find out how I finally got one of my pals to read just one ish. Then when I continued my raving with him helping me along it wasn't so hard to get some fans born.

Bergey's girls are tops. This is the statement all my friends make whether they are sters or not. All Canadians like a pin-up and Earl sure knows how to draw. I was glad to see that at least one fan that I don't know lives in Montreal. Good for him. Let's hear from the rest of you Montreal fans.

I also would like to suggest that if you fans want to read a good sf story get the latest SS. The Laws of Chance is simply superb. Peter Leyva has a nice style of writing and his ideas are good. More please.

This goes to S. Vernon McDaniel. Your idea is a fine one but don't you think that using the energy of the sun is a bit farfetched? As far as I know, space is always dark and the sun cannot be seen. But here is my idea. Instead of using electricity why not use steam power, to run an electric generator which would in turn be used in the electrolysis. Here is how it would work. The water could be brought to the boil and the steam would run the motor which would operate the generator. The steam would then be condensed and it would be water again, and then since it was water again it would undergo the process of electrolysis. It doesn't sound like anything new but I have a definite plan of it in my mind now and am going to close now because I plan to draw it. His idea is really good and so I'll see what I can do about

it. If he wants to get me he can write—379 Edward Charles, #2, Montreal 8, Quebec.

While undergoing his personal process of electrolysis, your editor would like to remark that you really seem to have something there in your invisible sun. Actually, we are a little stunned about it all. How do you cook them up? Anyway we're glad if you're glad that you're in this column. Best of luck to your Canadian capers.

LEATRICE'S JOY

by Leatrice Budoff

Dear Editor: My, my. Aren't we getting conservative! The lassie on the cover hasn't got one single torn spot in her outfit! And dressed in brown. What is this world coming to! Best interior was on page 13 with the one on page 66 closely following.

My dear editor, it's easy to see that your metamorphosis is still in its intermediate stages. I am referring to your rose-colored editorial. Tell me, did the invention of bows and arrows, gunpowder, and the super-duper mechanized machines of war help prevent further struggles? They did not. Through the centuries, with every new invention of warfare, people were warned that the world was coming to an end. Did they say, "This is getting too big for us; we'd better bury the hatchet." Of course not. They only decided that the thing to do was to figure out something even bigger and better. I'm afraid, dear sir, that the only way to convince these thick-headed, short-sighted excuses for human beings that they are playing with fire is to burn them at the stake. And then it'll be too late.

The letters this trip were pretty fair, though reading what others think of the stories doesn't interest me too much. Let's have more comment on editorials and original thoughts. Perhaps a feud or two? I can dream.—987 Schenectady Avenue, Brooklyn 3, New York.

In line with your stated opinion on reviews of the stories, you will note that we deleted the paragraph of your letter referring to same. Feel better now?

WEBER AWAY

by Carl L. Hall

To the Editors of Thrilling Wonder Stories: Having just finished reading all the interesting (?) stories in your April issue, I have the following comments to make:

I would rate Way of the Gods above any of the other stories, of course, but I didn't think that the title was quite appropriate. The mutants were not gods and should not be called same. The rest of the stories were about equal in value. However, I did think that Quest to Centaurus was better than the rest as far as it went, but the ending was too abrupt.

Now for the real purpose of this letter. Wallace Weber, in thinking that his imaginary space ship would gain any velocity from planet A, is all wrong. I hope you publish this letter and set him right. The ship could not possibly go more than $\frac{3}{4}$ light speed for the simple reason that its motors could not operate any faster. As an illustration imagine a small plane with a maximum speed of 500 m.p.h. riding "pick-a-back" on a larger plane flying 300 m.p.h. Now suppose the smaller plane is released by the larger. Certainly the smaller plane, although already traveling at 300 m.p.h., is not going to go 500 m.p.h. faster, or 800 m.p.h.?

I am not saying that speeds faster than light aren't possible. I think they are, but—I could write about ten more paragraphs on this subject, but I won't.

Also I would like to set Mr. S. Vernon McDaniel right on a few things. I have been thinking along the same line for a long time and I would like to put forth the following:

THRILLING WONDER STORIES

1. Atomic power would be much more practical than the sun for producing the current needed, because it would continue to operate no matter where the ship went.

2. The main catch is to capture the water again. In order to produce forward motion, the steam produced would have to be allowed to expand against the sides and forward end of the engine (I am assuming he intends to use a reaction [rocket] engine) and it would also have to be free to rush out the rear of the motor. Any attempt to keep it from rushing out the rear, or to allow it to pass through the sides or front of the engine would result in a total loss of power.—*Mulberry Street, Plantsville, Connecticut.*

Okay, okay—well, we armed the mighty S. Vernon, did we not? As for your pick-a-back plane theory, we're still trying to figure out at what speed the smaller plane would be going if the mother plane crashed at, say 700 mph and, in the moment of impact, released its pup at full velocity. How fast would it be going then? And who would write letters of condolence to the pilot's loved ones, if any? We shall gladly test the handwriting samples of anyone who cares to try for the job, as long as he or she uses a typewriter.

HEBBA WEBER!

by Russell Claggett

Dear sir: In answer to the query of Mr. Wallace Weber, in the April issue, his premise seems to be based upon an error. There is nothing to prevent any object with enough acceleration from exceeding the speed of light; however it no longer exists in its natural state at super-light velocities. For example, water cannot be maintained at a temperature greater than 212 degrees F.

This doesn't mean that H_2O molecules won't get hotter than 212, rather that water then becomes something else, namely steam. In fact, according to news publications, Einstein's formula for the conversion of matter to energy is $E=MC^2$. In case anyone is ready to jump on me about that C square, blame Einstein not me, for in my book you can't square the speed of light. Probably Einstein was being misquoted or anyway misinterpreted by the newsmen.

According to present day space flight theory, any practical space ship, with enough fuel, should be able to exceed the speed of light. Space flight is radically different from the methods of travel we now have, in that a boat, an airplane, or car moves by forcing itself through a constantly resisting medium—air, water, or land surface friction. Therefore there is a definite speed limit for each vehicle, depending upon its size, shape, and weight; its power; and the drag imposed upon it by whatever friction it is running through.

In space, there is no air, no water, no friction. A space ship kicks itself away from a planet by sheer power. It must be able to overcome the pull of gravity from that planet by sheer force. Once this is done (unless it goes into free fall which is a special case) the ship accelerates, and acceleration means ever-increasing speed, to the midpoint of its journey, turns end for end, and applies power to force itself away from its destination planet.

This power however, is not great enough to overcome the ship's momentum, plus the pull of gravity from the second planet so the ship continues to go down to the planet, losing speed all the way. If the pilots' math is correct, the two opposing forces should cancel each other at the exact surface of the planet. If not.

If a space ship wanted to make a speed test, however, it could theoretically head for nowhere in particular, and accelerate until its speed exceeded light, or its fuel gave out. Since we are assuming so much, we might as well imagine our ship has more than enough. Also we could have it take off from a tiny asteroid, with practically no gravity to overcome. That would save a lot of fuel.

This brings up a new problem. Since super-light speeds could be dangerous and space ships could exceed them, we need a speedometer on our space ship to warn the pilot when he neared the danger point. It would be a handy gadget to have anyway, the space traveler of the future certainly wants to know how fast he is going. Here is my suggestion. Why not use the Doppler shift from the light spectrum of some convenient guide star? This could be converted to an electrical frequency and coupled to a dial of some sort. It could be tricky I suppose. I'd like to see some comment on this idea.

Nice question, Mr. Weber.

From the profound to the pathetic, we come to S. Vernon McDaniel's water powered, perpetual motion space ship. Mr. S. had big photo electric cells on his ship which caught the sun's rays, turned them into electricity, used the electricity to decompose water by the electrolysis method, burned the resultant hydrogen and oxygen to get the power to run his ship, then repeated the process over and over again with the water he got from the burned hydrogen and oxygen.

And I thought Rubé Goldberg was dead.

First of all, as every high school freshman learns, you can't get as much energy out of an operation as you must put into it. The electrolysis of the water would take more energy than the burning H and O would supply.

Oh yes, the electricity for your electrolysis is furnished by your big photo cells. Mr. McDaniel, I'm sorry to say that a photo cell doesn't manufacture electricity, it uses electricity. It is simply a resistance placed in an electric circuit which varies according to the amount of light focused upon it. You must have some D.C. somewhere along the line. If you doubt me, I'd be glad to send you one and let you fiddle with it yourself; upon receipt of sufficient postage of course.

If photo cells did manufacture electricity, or convert light to electricity, why waste time with the water? Electricity is energy and should be able to drive a space ship as well as burning hydrogen. Electricity turns into heat nicely if you must have heat. Also the sun puts out quite a bit of heat itself. Why not use that heat directly if you're tapping the sun anyway?

Finally, why wait for space ships? There are still a lot of old-fashioned steamboats and trains chugging around. I'd love to have such a fuel system on my car. There is plenty of opportunity for you and your idea, here and now.—7508 Harford Road, Baltimore 14, Maryland.

Steamboats or no, we are going to write our congressman and demand that a speedometer and a package of band-aids be compulsory equipment for every spaceship built. Actually, Russel, a darned interesting letter. Write in again, please.

SCIENCE FICTION VAN

by John Van Couvering

Dear . . . uh . . . Ed: The April TWS again blemished the newstands, and, after accepting a dollar from the grateful proprietor, I meandered home, reading as I walked, as is my usual custom.

Fitzgerald seems to be a real discovery. Congrats, Sar . . . uh, Ed. THE GREGORY CIRCLE was one of the best novelettes I've read in a long time, and I'm partial to novelets. Let's us have a 100 novel just all to ourselves, huh? Let's Bud Gregory is quite a character.

SKIT-TREE PLANET was really good for a short. I liked it. There was nothing half-baked about either plot or characterization. Hmmm. Something's wrong. I haven't complained yet. No . . . it can't be. . .

VICTORIOUS FAILURE compares favorably with any of the "superior" type STF, as advertised elsewhere, but it seems that possibly Kuttner is blossoming forth in another pen name at this point. 'Twas one of the best shorts of the year, it says here.

QUEST TO CENTAURUS marked George O's debut in TWS, and it looks like he's here to stay. At least

I hope so. For once the story was plausible in characterization and previous "history."

THE RELUCTANT SHAMAN is the second of L. Sprague deCamp's wonderful stories of pluckish, sprightly humor woven around wonderfully and thoroughly enjoyable impossible happenings. And the ease with which his characters accept these situations makes it even more fascinating.

THE READER BABBLES, as some wit put it in the column he so foully maligned, was excellent. It seems that although our old pal, Sarge Saturn (yaas . . . we know; who's he?) has gone the way of all flesh, there is still the old space's spirit around to grind out nauseous poems for all to read a shudder over.

Look, Ed, it's Koo-ver-ing, not Kuh-ver-ing. Cou-
vering. And I'll capitalize whatever part of my name I choose. Just because some of those stuck-up High-landers thought it was sophisticated to use a little "v" in Van, is no sign us down-to-earth Polderlanders have to. (The "highlands" in Holland correspond to the Mississippi delta. Holland, when pronounced with a long o, as in Poe, sounds like its English equivalent, Low-land. Get it?)—902 North Downey Avenue, Downey, California.

Send the Ed with pencil hovering,
"We're going to stick to John Van Covering
With either big or little V
It matters not a whit to we,
But when you penned your noxious screed
You got your editor neatly treed,
From dawn's first light to eve's hors d'ou-
vering
We cannot find a rhyme for Couvering."

WALSHING WITH TEARS IN HIS EYES

by John Wash

Dear Editor: Well, looks like ye Sarge is annihilated completely at long last. And his successor doesn't delgn to give his name. He really should, though. Hmmm?

THE READER SPEAKS was pretty good this ish. Oliver and Anger were interesting. Sigler strikes me as being a screwball. I'd also like to add a few remarks to this SKYLARK business. You seemed to have changed your stand utterly after Oliver's letter' . . . wonder why it was printed at all," you state; while in Dec. you called its "science brilliantly presented . . ." and ". . . good of its type." It was the cornerstone of a great writer's career and was, in addition, among the pioneers of interstellar sf. For both of which, I think, it deserves more credit than you accorded it.

Artwork pepped up this time with Kiemle and Stevens turning out excellent work. Only one Marchioni this time—good! Far too much Morey, however.

Fiction was exceptional. Best story was by an author that I never expected to see in your magazine. One of those hard-to-put-down mixtures of humor, adventure and galactic plot that almost invariably take top place—**QUEST TO CENTAURUS**, by George O. Smith. You need more of this fine writer.

Second goes to the much-heralded **THE GREGORY CIRCLE**, which I was tempted to put above the Smith novelet. Very well written and intensely absorbing, it has given an added boost by the character of Bud

[Turn page]

"It's the Same Tragedy All Over Again— All Because of the Lawson Radiation!"

DR. POLLARD regarded the patient solemnly. John Majors, the director of the laboratory, watched the proceedings with breathless anticipation. But the man who sat before them seemed utterly unable to answer the questions that were asked of him.

The physicist finally shrugged hopelessly. "This is no place for me," he said. "If I can do anything—"

"You can do nothing, Majors," said Dr. Pollard. "As usual, this case is almost complete amnesia. Memory completely shot. He'll never be brilliant again. From I. Q. 180 down to about 70. That's tough to take. He'll have to make new friends for his old ones will find him dull."

John Majors shook his head in despair. "I'm going to abandon the Lawson Radiation. It gets us all. It's already taken four of my top technicians. Perhaps it's because the Lawson Radiation is no better understood now than it was thirty years ago!"

Astonishing consequences follow in the wake of a deep scientific mystery in **THE KINGDOM OF THE BLIND**, the amazing complete novel by George O. Smith featured in the July issue of our companion magazine, **STARTLING STORIES**—now on sale, 15c at all stands!

It's a novel that will hold you spellbound as you follow its strange and compelling events—and at the same time fascinate you with its world-shaking scientific implications! The fate of the Earth depends on the Lawson Radiation in **THE KINGDOM OF THE BLIND**—and there are thrills and surprises on every page!



Gregory. But let's hope that this series doesn't degenerate into the likes of Pete Manx.

Kuttner's novel disappointed. Guess he's got mass-production on the brain. Still okay.

Shorts were all good (1). I notice you're dragging in a lot of new writers. That's fine; any type of fiction needs new viewpoints.

TWS is really on the upgrade!—154 North Main Street, St. Alban's, Vermont.

We'll be glad when we have attained the summit of that so-called upgrade and can coast for a bit. That primrose path looks mighty alluring. The only hitch with it in magazine publication is that it is also and invariably monumentally dull. We're glad, John, me lad, that you have finally heard of George O. Smith. Where have you been?

The review of SKYLARK was written immediately upon completion of the reading chore, before the indigestibility of the tome in question had time to produce its inevitable heartburn. Your Ed has been and always will be a sucker for a sound story line and believable characterization.

In both of these factors SKYLARK was notably minus. Unlike umpires, magazine critics like ourselves have a perfect right to change our mind—or even tell big whopping fibs should we choose to. Integrity, however, once it is acquired, is an extremely difficult and stubborn factor to overcome. Which concludes our reading from the scriptures for the nonce as it were. . . .

PALMER IS CALMER

by Rodney Palmer

Dear Editor: You boys out there at Headquarters are obviously making strong changes—look at the Sarge. He's gone altogether now. All fans who knew and remember "him" will drop one or two tears—that's enough.

1. "The Gregory Circle" By William Fitzgerald. Best in the book. Sorry, but it outshines—

2. "Way Of The Gods" by Henry Kuttner. A good story of its type, proper mood and all that. But too much of this stuff is overdoing it.

3. "Skitt Tree Planet" Maybe this would have gone for second. Above the average. Leinster does wonderful work except for literary lapses like "Pocket Universes."

4. "Quest to Centaurus" By George O. Smith. Exactly the sort of work that goes over with me. Only one thing instantly noticeable: The reportorial coverage. It was somebody telling somebody something. The yarn wasn't brought to life paragraph by paragraph, page by page. Amusing but by no means exciting.

As for "Victorious Failure," and "Reluctant Shaman" they're both below mediocrity and don't deserve mention. But it's a credit to the new Editorial Mas-

ters that humor is slowly absorbing more space in the book. And for humor—good, belly-laugh humor—yours always has fifteen grimy pennies. Funny thing about funny stories though—they're either good or bad. No middle road.—226 West 60th Street, Chicago 21, Illinois.

Who put the grime on them pennies, Rodney? Huh?

SIG-SAG

by Edwin Sigler

To the Editor: Since you were kind enough to print part of my letter in Thrilling Wonder would you let me answer the questions you raised about it?

In the first place, while the pirate ship might not be able to see the stream of armor-piercing lead coming at them the ship that would be firing them would probably be able to because they would know where to look in the first place and they could also tell by the actions of the other ship whether it had been hulled or not.

In regard to whether a tracer could burn in a vacuum it probably could as a tracer carries its own oxygen same as a cartridge does. However, I suggested the use of fire-control units similar to those used on those big Boeing bombers. These were operated by automatic calculating machines which aimed the controls whenever the proper dials were operated. Therefore tracers would be unnecessary.

You asked about how a fifty caliber armor piercer could work when it took a ninety millimeter shell to stop a tank. Well the fifties managed to smash the armor plate the pursuit planes carried and the bazooka shells managed pretty well.

Also a six inch rocket packs the wallop of an eight inch shell and is pretty light to carry so that wouldn't be impossible to do. However a ninety millimeter shell is 3.6 inches so armor plate would have to be 4 inches thick to resist it.

On a ship that was 50 feet in diameter and three hundred feet long this would amount to about 17,010 cubic feet of armor plate or in the neighborhood of 3,402 tons at the rate of 400 pounds per cubic foot. It is obvious that no chemical fuel or early atomic rocket could carry that much dead weight so in reality the outer hull would have to be so thin that an ordinary rifle bullet would penetrate it. Hope this answers your questions.

In that query about a planet traveling at half light speed while a ship taking off from it as three-fourths light speed, the answer is not that the ship would be traveling at one and one-fourth light speed but that the ship would be traveling at three-fourths light speed or one-fourth relative to the planet.—1028 North Broadway, Wichita 5, Kansas.

Your second paragraph floored us, Edwin, so we ran it as is. However, your premise that space-ship skins must be thin won't wash here—not until someone comes up with a metal so strong and so light that it could shield passengers from all the deadly radiations which bombard them. Big-time rockets will have to be plenty heavy and heavily armored—much more so than any puny pur-

Look Forward to Next Issue's Amazing Complete Novel!

DONOVAN HAD A DREAM

By JAMES MACCREIGH

suit plane of World War II. And until they come up with power to lift them at sufficient speeds we shan't have space-ships.

You and your old machine-guns! Wait till I get my new doughnut gun.

STRAW IN THE WIND

by John A. Grevillius

Dear Editor: I have refrained from adding my voice to the general din of this department in T. W. S. for several years, but the letter from S. Vernon McDaniel in the April issue was the straw that broke the camel's back. I would suggest that Mr. McDaniel dig out his physics book and reread it. All present day rockets are operated on the principle stated in the third of Newton's three laws of linear motion. "For every action there is an equal and opposite reaction."

Now if Mr. McDaniel is going to re-use his water he will first have to stop its negative momentum in relation to the momentum of the rocket, and in so doing, he will necessarily lose the momentum he gained. (Newton's third law of motion again.) Mr. McDaniel's rocket would go exactly noplace.

If you don't re-use the water, you soon run up against the old problem of running out of expendable matter. It might be interesting to note that on the earth's surface the sun's power is too weak to lift any known building material of sufficient thickness to be practical off the face of the earth using that amount of sunlight that falls on the material. (With present day science).

My personal opinion of the April issue of T. W. S. is that it was excellent. The cover was good, the stories were good, and the special features were good. The story that gets the gold medal is George O. Smith's "Quest to Centaurus."

Suggestion to all members of the Let's-Have-Trimmed-Edges Club: If untrimmed edges takes away

[Turn page]

JOIN THE

U.S. COAST GUARD

YOU GET
IN THE COAST GUARD

EVERYTHING ANY OTHER
SERVICE OFFERS
G. I. BILL OF RIGHTS
BENEFITS...
ALL PAY AND RETIRE-
MENT BENEFITS, FAMILY
ALLOWANCES, ETC.

PLUS

...OPPORTUNITIES FOR
QUICK RECOGNITION AND
ADVANCEMENT (IT'S A
SMALL SERVICE)...
...BASIC TRAINING IN
FLORIDA....
...ACTION!



NOW! The ONE-UNIT HEARING AID

Thousands Have Waited for

The New ONE-UNIT
Beltone
MONO-PAC
HEARING AID



THIS IS ALL
YOU WEAR

No Separate Battery Pack

No Dangling Battery Cords

The tiny new BELTONE Mono-Pac is about 1/2 size and weight of old-style hearing aids, yet so powerful you hear even *whispers!* Get helpful facts about this new "MIRACLE" aid in valuable FREE book about deafness.



BELTONE HEARING AID CO.
1450 W. 19th St., Dept. TG-78, Chicago 8, Ill.

FREE BOOKLET



Beltone Hearing Aid Co.
Dept. TG-78, 1450 W. 19th St., Chicago 8, Ill.

Please send me FREE booklet about deafness and what can be done to overcome it.

Name

Address

Town Zone State

LAW...

STUDY AT HOME Legally trained men win higher positions and bigger success in business and public life. Greater opportunities now than ever before.

More Ability: More Prestige: More Money step by step. You can train at home during spare time. Degree of LL.B. We furnish all text material, including 14-volume Law Library. Low cost, easy terms. Get our valuable 48-page "Law Training for Leadership" and "Evidence" books FREE. Send NOW. G. I. APPROVED. LASALLE EXTENSION UNIVERSITY, 417 South Dearborn Street A Correspondence Institution Dept. 8329-L Chicago 5, Ill.



BE A Nurse
MAKE \$30-\$40 A WEEK

You can learn practical nursing at home in spare time. Course endorsed by physicians. Thousands of graduates. 48 hr. One graduate has charge of 10 bed hospital. Another saved \$400 while learning. Equipment included. Men, women 18 to 40. High school not required. Easy tuition payments. Trial plan. Write today. CHICAGO SCHOOL OF NURSING Dept. 427, 100 East Ohio Street, Chicago 11, Ill. Please send free booklet and 16 sample lesson pages.

Name City State Age

GET SUIT

NO MONEY TO PAY!

Big Earnings in Spare Time Too!

Act at once! We offer you brand new latest style made-to-measure suits for personal wear. Just for taking a few orders from friends. Also opportunity to earn **BIG CASH PROFITS** in spare time. Your suit will help you take more orders, with huge selection of rich, quality fabrics, tailored-to-measure in newest styles at sensationally **LOW PRICES** all you can afford. Also Ladies' Tailored Suits—complete line. Sensational values! Money-back guarantee. Don't miss this opportunity! No Experience Needed.

No house-to-house canvassing. No money needed. Amazing bonus Suit Offer and order-getting plans help you earn good money—easy. Don't wait!

WRITE FOR FREE SAMPLES!

We send you complete outfit **FREE**—including actual cloth samples, money-making plans, and bonus **SUIT OFFER**. For quick action tell us about yourself—age, etc.

J. C. FIELD & SON, INC.

Dept. V-1877

Harrison and Throop Sts., Chicago 7, Ill.

HORSE MASTERY!

A FINE HOBBY — A GREAT VOCATION!

"The EXPERT HORSEMAN"



FREE BOOK — Tell how You can learn to: BREAK COLIC, GAIT SHOW HORSES, TRAIN RODEO, STOCK AND RACE HORSES, BREAK BAD HABITS, HANDLE ANY HORSE, TRAIN CIRCUS TRICK HORSES. WRITE TODAY!

ANIMAL LOVERS ASSOCIATION
BOX TH-157 TAZZANA, CALIFORNIA

SUBSCRIBE TODAY
50¢
One Year

LAW

STUDY AT HOME FOR PERSONAL SUCCESS AND LARGER EARNINGS. 38 years expert instruction—over 108,000 students enrolled. LL.B. Degree awarded. All texts furnished. Easy payments. Send for **FREE BOOK.**

AMERICAN EXTENSION SCHOOL OF LAW
Dept. 79-T, 646 N. Michigan Ave., Chicago 11, Ill.

RUPTURE!

An amazing Air-Cushion Invention allows body freedom at work or play.

Light, neat, cool, sanitary. Durable, cheap. Day and night protection helps Nature support weakened muscles gently but surely. No risk. **Send on Trial!** Write NOW for free Booklet and Proof of Results. All correspondence confidential.

Brooks Company, 352-J State St., Marshall, Mich.



AMAZING HAIR DISCOVERY

TO PREVENT BALDNESS AND HELP GROW HAIR

Men-Women, if you are losing your hair, have dandruff, itchy scalp, dull, drab, lifeless hair or have thin fuzz and want to grow thick, healthy hair, we can help you solve your problems for only a few cents per treatment in the privacy of your own home. Information free, write today.

SILKLIKE SCIENTIFIC PROCESS CO.
1007 Bergenline Ave. Dept. K2 Union City, N. J.



Learn Profitable Profession in 90 days at Home

MEN AND WOMEN, 18 TO 50—Many Swedish Massage graduates make \$50, \$75 or even more per week. Large full time incomes from doctors, hospitals, sanatoriums, clubs or private practice. Others make good money in spare time. You can win independence and prepare for future security by training at home and qualifying for Diploma, Anatomy Charts and 32-page Illustrated Book **FREE—Write: The College of Swedish Massage, Dept. 763K, 100 E. Ohio St., Chicago 11, Ill.**



DO YOU WANT TO STOP TOBACCO?

Banish the craving for tobacco as thousands have with Tobacco Redeemer. Write for free booklet telling of injurious effect of tobacco and of a treatment which has relieved many men. **Caution: Use only as directed.**

30 Years in Business
FREE BOOK
THE NEWELL COMPANY
153 Clayton, St., St. Louis 5, Mo.



some of your reading pleasure, why not trim the edges yourself? It's a relatively simple matter.

Suggestion to the editor: If you would like to have more people write to this column, why not put the address at the head of it?—1020 W. Atlantic, Springfield, Mo.

We don't make a habit of giving out our address to strangers, Grevvy, but here it is—The Editor, Thrilling Wonder Stories, 10 East 40th Street, New York 16, N. Y. As it is, we have been doing rather well lately (said he, smugly) in the matter of correspondence, for which, thanks, fans. And our address is there for all to see at the bottom of the contents page.

REXWARD, TURN REXWARD

by Rex E. Ward

Dear Editor: My opinions of the April 1947 issue of Thrilling Wonder Stories:

In the first spot: "Way of the Gods" by Henry Kuttner. As usual Hank comes in with a bell-ringer. He is doubtlessly the most improved author of the decade. Among his best, I'd say, are, "Sword of Tomorrow," "The Dark World," "When New York Vanished," (an old-timer) and "Way of the Gods."

I enjoyed this latest story immensely, also the illustrations. Donnell did a good job on them; that one on page 17 reminds me of Frank R. Pauls work. Truly a masterpiece. By the way, was it Donnell? The more I look the more it looks like Lawrence's drawings. A small caption, ILLUSTRATION BY LAWRENCE, would suit me fine. Hint.

In second place: "The Gregory Circle" by William

Inspiring True Picture-Stories of Adventure and Achievement!



Approved by Parents and Teachers!

Now On Sale 10c At All Stands

Fitzgerald. A new author. A good story. Complete satisfaction! It looks like this fellow will go places. All the other stories were good, save one. That one, I'm sorry to say, is "Quest to Centaurus." 'Twould've been swell if George O. would have kept it more serious. But I despise such names as Kilroy used in connection with science-fiction. It's a bad thing for STF. It left a bad taste in my mouth. What next? "Open the Door, Richard?" Say, let's conduct a little poll in the Reader Speaks. Everyone write in and list their three favorite authors and artists. I think that would be interesting.

—428 Main Street, El Gegend, California.

Very well, pal, hop to it. The polls are now officially open and everyone has the freedom of picking his own individual best-seller list—three places long. Some of the results should be amusing, even interesting.

Dorothy Donnell has not illustrated TWS for years now. That was S. Verne Stevens who illustrated WAY OF THE GODS. Good, isn't he? Too bad the full-page cut on 13 took ink so badly. A honey of a drawing.

And this, my friends, good and otherwise, winds up the longest THE READER SPEAKS in the history of the department. Hope you like it. It is your support and your letters that have made it what it is—with a small assist from. . .

—THE EDITOR.

SEE America's Favorite Picture Magazine!



PACKED WITH TIMELY AND FASCINATING FEATURES

Now on Sale Everywhere!

YOU ARE UNDER ARREST!



THERE'S A THRILL IN BRINGING A CROOK TO JUSTICE THROUGH SCIENTIFIC

CRIME DETECTION!

I have taught thousands this exciting, profitable, pleasant profession. Let me teach you, too, in your own home. Learn Finger Printing, Firearms Identification, Police Photography and Criminal Investigation thoroughly, quickly, and at small cost.

Be A FINGER PRINT Expert

53% of All American Bureaus of Identification employ students or graduates of I. A. S. You, too, can fit yourself to fill a responsible crime detection job with good pay and steady employment. But don't delay—get the details now. Let me show you how easily and completely I can prepare you for this fascinating work, during spare time, in your own home. You may pay as you learn. Write today . . . Now . . . Be sure to state age.

FREE !! Send for Thrilling "BLUE BOOK OF CRIME"

INSTITUTE OF APPLIED SCIENCE
1920 Sunnyside Ave., Dept. 796-G, Chicago 40, Illinois

High School Course at Home Many Finish in 2 Years

Go as rapidly as your time and abilities permit. Course equivalent to resident school work—prepares for college entrance exams. Standard H.S. texts supplied. Diploma. Credit for H. S. subjects already completed. Single subjects if desired. High school education is very important for advancement in business and industry and socially. Don't be handicapped all your life. Be a High School graduate. Start your training now. Free Bulletin on request. No obligation.

American School, Dept. H-558, Drexel at 58th, Chicago 37

PICTURE RING \$1.



Exquisite Picture Ring—made from any photo. **SEND NO MONEY!** Mail photo with paper strip for ring size. Pay postman only \$1 plus postage. Hand tinted free extra. Photo returned with ring. Money back guarantee. **SEND PHOTO AND RING SIZE NOW!** **PICTURE RING CO.** Dept. N-26, CINCINNATI 2, Ohio

BE A DETECTIVE

WORK HOME or TRAVEL. Experience unnecessary. DETECTIVE Particulars FREE. Write to **GEO. R. H. WAGNER**, 125 W. 86th St., N. Y.




RHEUMATISM

ARTHRITIS-NEURITIS-SCIATICA If you suffer the agonizing pains of these diseases when the usual remedies have failed, learn about a new trustworthy, modern, non-surgical treatment method. This marvelous treatment is completely explained in the Ball Clinic's FREE Book. Write today. No obligation. **BALL CLINIC** Dept. 504 Excelsior Springs, Mo.

What To Do For Pains of ARTHRITIS Try This Free


If you have never used "Rosse Tabs" for pains or arthritis, neuritis, rheumatism, we want you to try them at our risk. We will send you a full-size package from which you are to use 24 Tabs FREE. If not astonished at the palliative relief which you enjoy from your sufferings, return the package and you owe us nothing. We mean it! **SEND NO MONEY.** Just send name and address and we will rush your Tabs by return mail. **ROSSE PRODUCTS CO.**, Dept. 954, 2708 Farwell Ave., Chicago 45, Illinois.



**A SPLIT SECOND
IN ETERNITY**

Can we experience momentary flights of the soul? The ancients called it *Cosmic Consciousness*—the merging of man's mind with the Universal Intelligence. Not a religious idea. Learn the simple natural laws for receiving inner joy and power. Write for FREE book today. Address: Scribe V.Z.W.

The ROSICRUCIANS
(AMORC)
San Jose · California



Bar Bells
...at Factory Prices

WRITE FOR FREE BOOKLET
AND PRICE LIST

**\$8⁹⁵
up**

INDEPENDENT IRON WORKS
2416 East 23rd Street, Dept. T75
Los Angeles 11, Calif.


What Every Mason Wants



We have important Masonic books for Blue Lodge, Chapter, Commandery, Scottish Rite, and Shrine. **OUR RITUALS ARE USED THE WORLD OVER**

Send for free catalog of books and rituals for Masons, Odd Fellows, Knights of Pythias, Knights of Columbus, etc.

EZRA A. COOK, Publisher, P. O. 796, GAT, Chicago 90, Ill.



DISCHARGE RING

Handsome, hefty Genuine Sterling Silver Honorable Discharge Ring. Beautiful Discharge Emblem on handsome scrolled mounting.

ONLY \$1.98 SEND NO MONEY! Mail order, pay post- and postage. Money back if you're not delighted. Send string of paper for ring size. Order today.

STEWART, 616 Walnut, Dept. P-205 Cincinnati 2, Ohio

**A FEAST OF LAUGHS
IN
CARTOON
HUMOR**

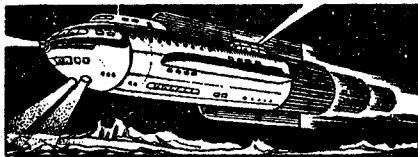
**Featuring America's Funniest
and Cleverest Cartoonists**

**NOW ON SALE
ONLY 25c AT ALL STANDS!**

**SCIENCE FICTION
BOOK REVIEW**

A QUARTET of items have come to our attention, which seem worthy of consideration and passing along to those interested in the matter of science fiction in book form.

First—and this is really an aside—Manly Wellman's first novel, *FIND MY KILLER*, has recently been published by Farrar, Straus. Although it is a mystery story and not science fiction at all, yet Mr. Wellman has been for so long such an important contributor to sf as all readers of TWS and SS know, that we think he deserves praise for a



swell, spine-tingling job, even though it is, strictly speaking, beyond the limits of this column.

The Hadley Publishing Company, whose first two efforts were reviewed here some issues ago, has come up with a handsome edition of A. E. van Vogt's *THE WEAPON MAKERS* (\$3.00). It seemed to us a story very much worth publishing, written as it is with all of the Sage of Southern California's brilliance of style and with a number of suspenseful narrative threads interlocking in ingenious fashion as the tale unfolds.

Basically, the book revolves about an immortal man of a future era when the world's forces are balanced pretty evenly between a long-lived imperial dynasty of reactionary tendencies and the "weapon makers," a group of powerful scientists whose interests favor progress in many fields.

Just who this immortal is must remain a secret until the book is read, but as presented he is a most compelling figure. However, instead of hewing to this line, *THE WEAPON MAKERS* also takes up space flight, alien minds in space, the psychic relationships of identical twins and the ability to grow gigantic at will amongst a scattering of other themes.

Unavoidably under the circumstances, it

becomes bogged down in its author's unweeded profusion of interests. Which is too bad, for had van Vogt hewed to a less cluttered story line he might have come up with a first-class instead of a merely readable and entertaining story. But it's still a darned good book.

The Fantasy Press of Reading, Pennsylvania, has emerged with a beautifully-bound and printed edition of Dr. Edward E. Smith's **SPACEHOUNDS OF IPC** (\$3.00), a real old-school interplanetary thriller-diller. In this one a Mars-bound space-ship is attacked and chopped up by a strange marauder from Jupiter, thus causing a young and very Robinson Crusoe-ish hero and the daughter of the space-line's head man to be marooned on Ganymede.

The galloping from planet to planet and the various wars encountered, to say nothing of some of the species, are strictly in the John Carter tradition, with little effort to delve below the slam-bang-whammy level. Complemented with adult characters it might have come out a quasi-mature adventure fantasy—but thanks to Dr. Smith's still gee-whiz dialogue it remains strictly a juvenile. Perhaps this was the intention all along, in which case it is excellently fulfilled.

Trover Hall of San Francisco has finally jumped into print with an odd little book of six short horror stories by Anthony More entitled **PUZZLE BOX** (\$1.75). These stories are all written in the Poe-de Maupassant tradition, with the horror laid on in trowelish fashion and more emphasis on atmosphere than on explanation.

The result is that, with the exception of the title story, which has considerable merit, the general level is that of an upper-case fanzine rather than of the usual published book. However, Mr. More writes well and his promised forthcoming efforts will be read with interest.

—THE EDITOR.

ENTERTAINING PUZZLES ON
EVERY PAGE OF
**POPULAR
CROSSWORD
PUZZLES**
NOW ON SALE—15c AT ALL STANDS!



DRAW for MONEY!

Be An ARTIST!

PREPARE TODAY FOR THE FUTURE THAT LIES AHEAD

Trained Artists Are Capable of Earning \$50, \$60, \$75 A WEEK

Use your spare time to prepare for a profitable Art Career! Start training at home, now!

It's pleasant and interesting to study Art the W. S. A. way. **COMMERCIAL ART, DESIGNING, CARTOONING**—all in one complete course. No previous Art experience necessary—we teach you step-by-step by our practical home study method well-known since 1914. Write today for information in **FREE BOOK, "ART FOR PLEASURE AND PROFIT"**—tells all about our course, material furnished, instruction service and commercial opportunities for you in art. **STATE AGE.**

Course Available Under G. I. Bill
WASHINGTON SCHOOL OF ART
Studio 668H, 1115-13th St., N.W., Wash. 5, D.C.

SHORTHAND in 6 Weeks at Home

Famous Speedwriting system. No signs or symbols; uses ABC's. Easy to learn; easy to write and transcribe. Fast preparation for a job. Surprisingly low cost. 100,000 taught by mail. Used in leading offices and Civil Service. Write for free booklet to: **Speedwriting, Dept. 9008-7, 55 W. 42 St., N. Y. 18, N. Y.**



GOOD MONEY FOR YOUR SPARE TIME!

Be our Dealer in your locality for **STRONG UNION MADE WORK AND SPORT GARMENTS**. No experience necessary. Easy work. Millions of workers buy work uniforms. We supply everything needed. Write immediately for **FREE** Outfit.

ROBT. STRONG GARMENT CO., 319-337 W. Van Buren St., Dept. K-7, Chicago, Ill.

LAW STUDY AT HOME FOR PERSONAL SUCCESS and LARGER EARNINGS. 38 years expert instruction—over 108,000 students enrolled. LL.B. Degree awarded. All texts furnished. Easy payments. Send for **FREE BOOK** **AMERICAN EXTENSION SCHOOL OF LAW** Dept. 79-T, 646 N. Michigan Ave., Chicago 1, Ill.



SMART SIMULATED DIAMOND RINGS

\$1.95 each or both for **\$2.95**

You will love to wear these beautiful Engagement and Wedding rings, set with sparkling simulated diamonds, a perfect reproduction of genuine diamond rings. You may have the rings in yellow Gold-Plate or Sterling Silver.

Send No Money

Just send name, address and ring size. Pay Postman on delivery plus 20% Federal Tax and postage charges.

CLARK RING CO., Dept. 599, Box 5151, Chicago, Illinois

RUPTURED?

Get Relief This Proven Way

Why try to worry along with trusses that gouge your flesh—press heavily on hips and spine—enlarge opening—fail to hold rupture? You need the Cluthe. No leg-straps or cutting belts. Automatic adjustable pad holds at real opening—follows every body movement with instant increased support in case of strain. Cannot slip whether at work or play. Light. Waterproof. Can be worn in bath. Send for amazing **FREE** book, "Advice To Ruptured," and details of liberal truthful 60-day trial offer. Also endorsements from grateful users in your neighborhood. Write:

Cluthe Sons, Dept. 33, Bloomfield, New Jersey

Thunder rides the skies

When hot-headed, handsome Lewt McCandles gallops recklessly along a trail that can lead only to flaming gunplay, a million-acre cattle empire trembles in the balance. Brother wars on brother in an action-packed, swift-shooting story of the great American Southwest in its sprawling, brawling infancy.



Don't miss **DUEL IN THE SUN**

smash success of current western novels, complete and unabridged (originally a \$2.50 best seller), now available in a glossy POPULAR LIBRARY edition for 25c. Get DUEL IN THE SUN today



*A Best Seller
at \$2.50*

POPULAR LIBRARY Edition

only **25¢**

**AT ALL
NEWSSTANDS
NOW!**

**POPULAR
LIBRARY**

Books of Proven Merit



Starred in \$6,000,000 Technicolor Production

JENNIFER JONES

GREGORY PECK

JOSEPH COTTEN