

"THE MAGAZINE OF PROPHETIC FICTION"

March

WONDER Stories



HUGO GERNSBACK Editor

"THE GREEN TORTURE"

By A. R. Hilliard



Other Science Fiction Stories
In This Issue

"THE RETURN FROM JUPITER"

By Gawain Edwards

"THE TERROR OF ARYL"

By R. F. Starzl

"THE SYNTHETIC MONSTER"

By Francis Flagg



The Gambler

He gambles that a "lucky break" will come to him in the course of time

MOST men live in the HOPE that their "lucky break" will come TOMORROW or NEXT WEEK or NEXT YEAR.

They gamble that FATE, some day, some way, will make them rich! They risk their whole lives on what may COME to them in the course of TIME.

This is a WORSE form of GAMBLING than gambling for MONEY with a card sharp or a "three shell game" expert.

Gambling on what TIME and FATE have in store for you is more costly than any other form of gambling known.

You lose MORE than money. You lose your SELF-RESPECT. You lose the self-respect of those about you.

And as each year passes your CHANCE to amount to anything becomes slimmer and slimmer.

You get discouraged. You begin to feel that fate is AGAINST you. You complain secretly about your ill luck. Perhaps you hide your shortcomings behind a whole flock of easy EXCUSES.

But the hard, cold world doesn't care about you.

You've got to look out for YOURSELF.

Time alone cannot help you. If it could, EVERY man over 70 would be rich.

You cannot COUNT on luck or fate or circumstances. If you could, EVERYBODY would get rich at some time or other.

Your life is too precious to waste away WAITING for "something to turn up."

There's ONE SURE WAY—yes, ONLY one sure way—to get what you want out of life.

Nothing can help you but your own BRAIN. Make your brain just a little bit more effective and you will MULTIPLY your earning power.

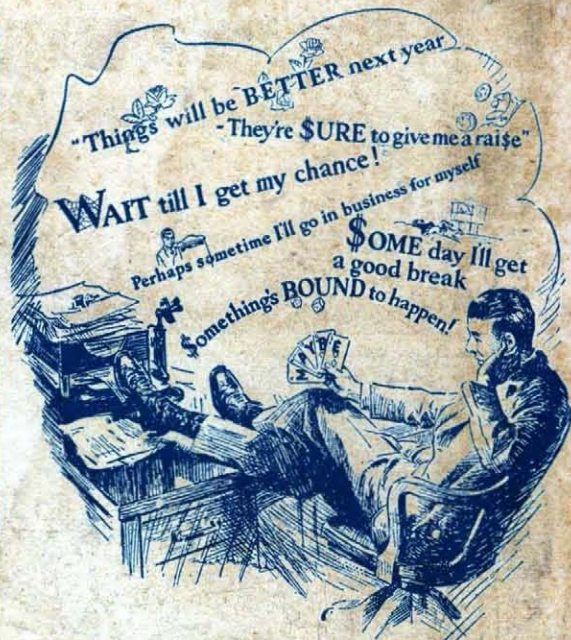
There is NO LIMIT to what the human brain can accomplish. Scientists and psychologists tell us we use only about TEN PER CENT of our brain power. Ninety per cent is unused. It lies dormant. The longer it is unused, the harder it becomes for us to use it. For the mind is like a muscle. It grows in power through exercise and use. It weakens and deteriorates with idleness.

What can you DO about it? That is the question you are asking yourself. Here is a suggestion.

Spend 2c for a postage stamp. Send in the coupon below for a copy of "Scientific Mind Training." There is no further obligation whatever. You need not spend another penny.

Read this little book. It has opened the eyes of hundreds of thousands of other individuals who had the same problems you have. Over 700,000 people, in all parts of the world, and in all walks of life have followed the advice given in this booklet. Lords and servants, princes and laborers, captains of industry and clerks, bookkeepers and bankers, men AND WOMEN of all types and of all ages have read this book and have changed their whole scheme of existence as a result.

This little book will tell you the secret of self-confidence, of a strong will, of a powerful memory, of unflagging concentration. It tells you how to acquire directive powers, how to train your imagination (the greatest force in the world), how to make quick, accurate decisions, how to reason logically—in short, how to make your brain an instrument of all-around POWER. It tells you how to banish the negative qualities like forgetfulness, brain fag,



inertia, indecision, self-consciousness, lack of ideas, mind wandering, lack of system, procrastination, timidity.

Men like Judge Ben B. Lindsey, Sir Harry Lauder, Prince Charles of Sweden, Jerome K. Jerome, the famous novelist; Frank P. Walsh, Chairman of the National War Labor Board, and hundreds of others equally famous, praise the simple method of increasing brain power and thought power described in this free book. OVER 700,000 OTHERS PRAISE IT.

You have only TWO CENTS to lose by writing for your copy. You may GAIN thousands of dollars, peace of mind, happiness, independence!

Thousands who read this announcement will DO NOTHING about it. The effort and the will needed to send for this book—which is FREE—may be lacking. How can these people EVER gain what they hope for, crave for? They are the skeptics, the doubters, the "show me" wiseacres.

Other thousands will say, "I can lose only TWO CENTS. I may GAIN a great deal by reading 'Scientific Mind Training.' I will send for it NOW. It promises too much for me to RISK MISSING."

The thousands who are open minded—who are willing to learn something to their advantage—will ACT on their impulse to send the coupon. They will be better, stronger minded for having TAKEN SOME ACTION about their lives, even if they do nothing more than to READ a booklet about the inner workings of the mind. For your own sake—and for the sake of your loved ones, don't continue to GAMBLE that your future will be bright whether or not you DO anything about it! Mail the coupon today—NOW.

THE PELMAN INSTITUTE OF AMERICA

Suite 2253, 71 West 45th Street, New York City
Offices in London, Paris, Stockholm,
Delhi, Durban and Melbourne

The Pelman Institute of America
Suite 2253, 71 West 45th Street,
New York City

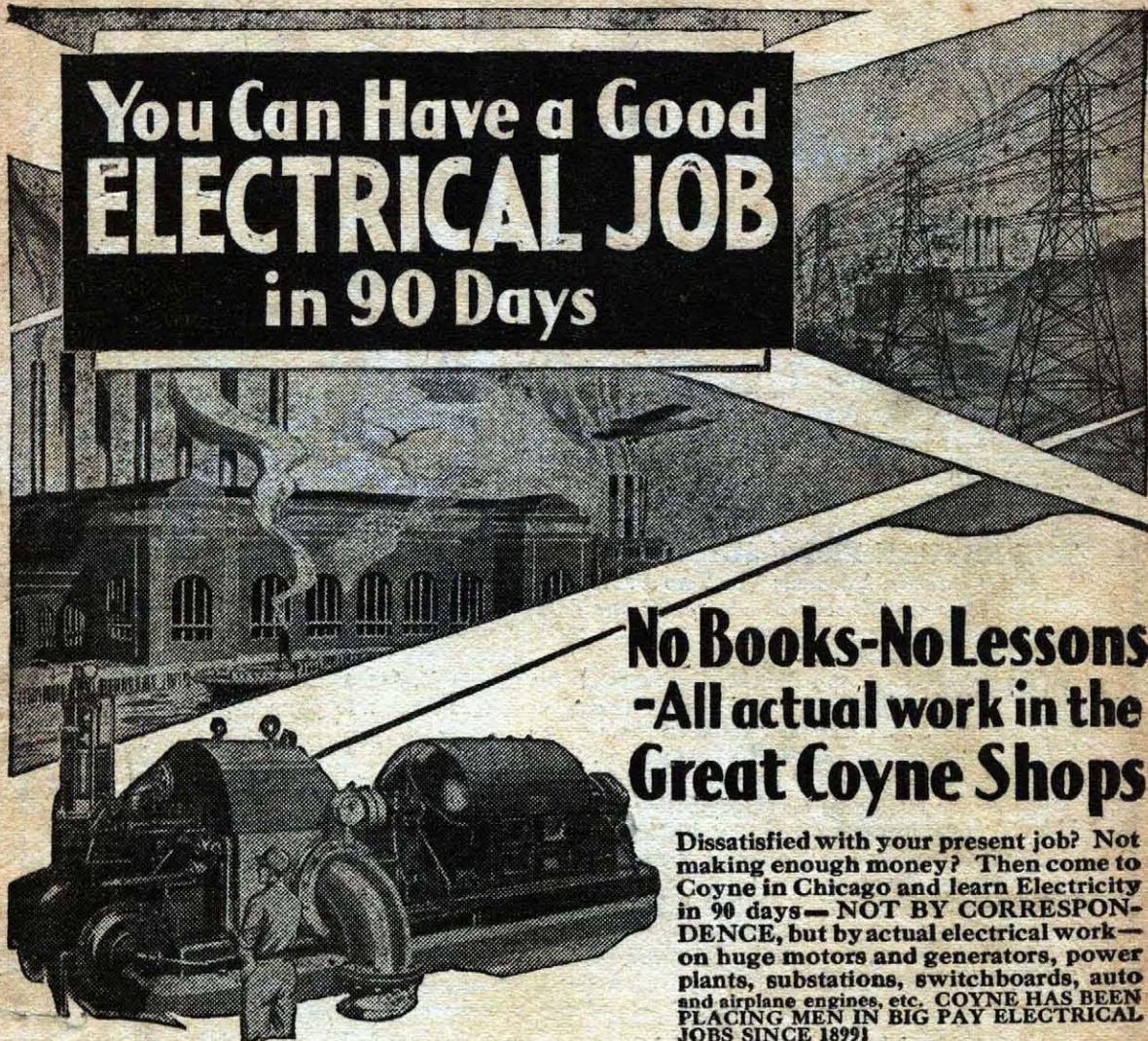
Please send me without obligation your free booklet, "Scientific Mind Training." This does not place me under any obligation and no salesman is to call on me.

Name

Address

City Sta.

You Can Have a Good ELECTRICAL JOB in 90 Days



No Books-No Lessons -All actual work in the Great Coyne Shops

Dissatisfied with your present job? Not making enough money? Then come to Coyne in Chicago and learn Electricity in 90 days—NOT BY CORRESPONDENCE, but by actual electrical work—on huge motors and generators, power plants, substations, switchboards, auto and airplane engines, etc. COYNE HAS BEEN PLACING MEN IN BIG PAY ELECTRICAL JOBS SINCE 1899!

Learn to Earn \$60 to \$200 a Week!

Every branch of Electricity is calling for more Trained men. Thousands of jobs are open, paying \$60 a week and up—in Power Plant Work, Armature Winding, Auto Ignition, House Wiring, Radio Service, Refrigeration, Welding, Aviation Electricity, etc. You can prepare for one of these fascinating Big Pay Jobs in 90 days. No advanced education or previous experience required. Mail coupon for proof!

FREE EMPLOYMENT SERVICE

EARN AS YOU LEARN

Don't worry about a job! You get free lifetime employment service. And if you need part-time work while at school to help pay expenses, we'll gladly help you get it. Mail coupon for my Big Free Book! Get the proof! Find out about my special low tuition offer, my free Radio Service and Auto Electrical Courses. This does not obligate you. Just mail the coupon!

COYNE ELECTRICAL SCHOOL
H. C. LEWIS, Pres. Founded 1899
500 S. Paulina Street, Dept. 31-81 Chicago, Ill.

FREE "ELECTRICAL JOB" COUPON

H. C. LEWIS, President
COYNE ELECTRICAL SCHOOL
500 S. Paulina St., Dept. 31-81
Chicago, Illinois

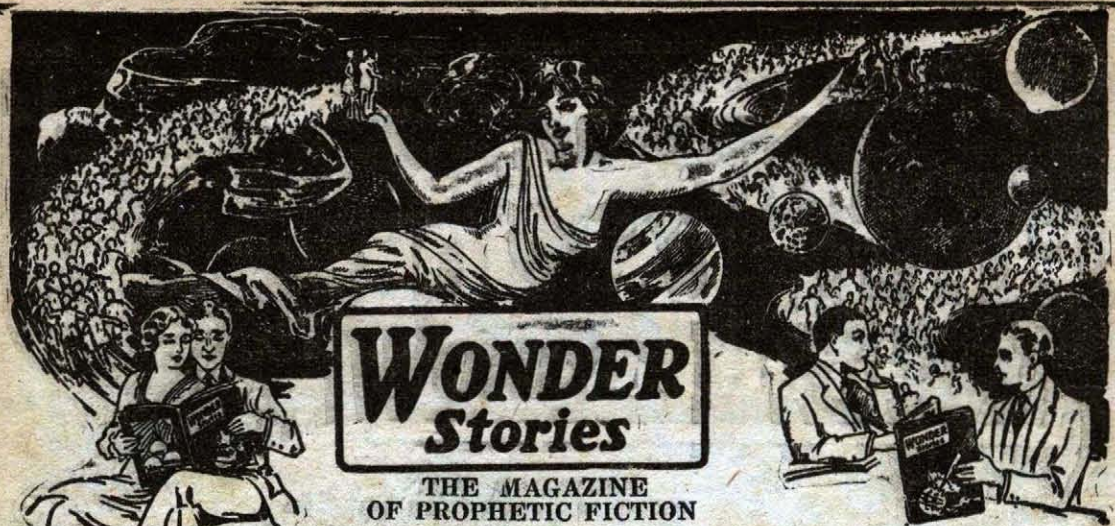
Gentlemen: Please send me your big FREE Electrical Book with 151 illustrations. This does not obligate me.

Name

Address

City

State



Vol. 2, No. 10

March, 1931

TABLE OF CONTENTS

THE RETURN FROM JUPITER
by Gawain Edwards (In Two Parts—Part 1) 1062
Three worlds, one desolate and one dying, struggle for existence in this great interplanetary drama . . . will the master planet triumph and a race be forever enslaved . . .

THE WORLD WITHOUT NAME *by Edwin K. Sloat* 1092
In that nameless world the hordes of monsters began to pour through to the earth . . . three men stood in their way . . .

THE TERRORS OF ARYL *by R. F. Starzl* 1102
Beset by perils of strange beasts and an avenging nature, the Interplanetary Police struggled on through this unknown planet . . .

BACK TO 20,000 A. D. *by Nathan Schachner and Arthur L. Zagat* 1120
Undeclared was the Great Brain until two men from 1932 plunged into the Vanishing Wood . . .

THE SYNTHETIC MONSTER *by Francis Flagg* 1152
Tortured dreams, filled with unseen terrors beset him . . . faces and noises in the dark . . . tracks of the Thing that was in hiding . . .

THE GREEN TORTURE *by A. Rowley Hilliard* 1162
For fifty hours he must withstand the menace of the merciless machine . . . moving . . . ever moving . . .

FROM OUT OF THE EARTH *by Ed Earl Repp* 1168
Unbelievable was his story . . . a price on his head . . . the lust of greed in his pursuers as he staggered through Death Valley . . .

WHAT IS YOUR SCIENCE KNOWLEDGE? 1185

SCIENCE QUESTIONS AND ANSWERS 1186

THE READER SPEAKS—Letters from Readers 1188

ON THE COVER from A. R. Hilliard's "Green Torture" we see the merciless pursuing machine cornering the war captive, who will not divulge the secret of his army to his enemies. For fifty hours he must escape the death-dealing pricks of the luminescent spikes.

WONDER STORIES—Monthly—Entered as second class matter in the Post Office at New York, N. Y., under act of March 3, 1879. Title registered U. S. Patent Office. Trademarks and copyrights by permission of Gernsback Publications, Inc., 98 Park Place, New York City, owner of all trademark rights. Copyright, 1931, by Gernsback Publications, Inc. Text and illustrations of this magazine are copyright and must not be reproduced without permission of the copyright owners.

WONDER STORIES is published on the 3rd of the preceding month, 12 numbers per year, subscription price is \$2.50 a year in United States and its possessions. In Canada and foreign countries, \$3.00 a year. Single copies 25c.

Address all contributions for publication to Editor, WONDER STORIES, 98-99 Park Place, New York. Publishers are not responsible for lost MSS. Contributions cannot be returned unless authors remit full postage.

WONDER STORIES is for sale at principal newsstands in the United States and Canada.

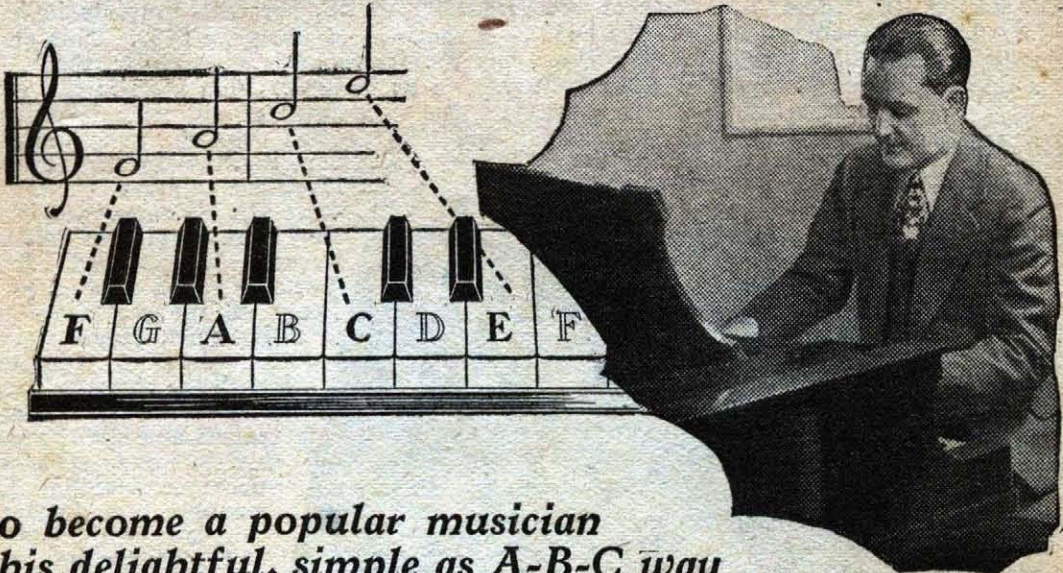
IF YOU WISH TO SUBSCRIBE TO WONDER STORIES, make out all remittances to the Stellar Publishing Corp. Be sure to mention the name of magazine you wish to subscribe for, as we are also agents for the magazine RADIO CRAFT, subscription price of which is the same as WONDER STORIES, and for WONDER STORIES QUARTERLY. Subscriptions can be made in combination with the above publications, at a reduced club rate. Ask for information. Subscriptions start with current issue. WHEN YOUR SUBSCRIPTION EXPIRES, we enclose a renewal blank in the last number. No subscription continued unless renewal remittance received.

CHANGE OF ADDRESS. Always give us old as well as new address and notify us as far in advance as possible.

STELLAR PUBLISHING CORPORATION

H. GERNSBACK, Pres. S. GERNSBACK, Treas. I. S. MANHEIMER, Sec'y.
 Editorial, Publication and General Offices, 98-99 Park Place, New York City.
 Chicago Advertising Representative—L. F. McClure, 737 North Michigan Ave.
 London Agent: Hachette & Co., Paris Agent: Hachette & Co., Australian Agents: McGill's Agency,
 3 La Belle Sauvage, Ludgate Hill, E. C. 4 111 Rue Beaumur 179 Elizabeth St., Melbourne

Just as EASY as it looks



*to become a popular musician
this delightful, simple as A-B-C way*

STOP cheating yourself out of musical good times. Stop thinking that learning music is nothing but one grinding session of monotonous exercises and harsh-sounding scales after another . . . days, months and years of difficult technique and dry-as-dust theory under the thumb of a private teacher.

Don't let others talk you into believing any such thing. It's ridiculous—absolutely! And we've already proved it to the complete satisfaction of over 600,000 enthusiastic students who have learned to play their favorite instrument right at home—without a teacher.

You're Never in Hot Water

Take a look at the above diagram. Looks easy, doesn't it? Well, it's every bit as simple as it looks. First a note—then a letter. Plenty of clear instructions tell you how each bar is played—lots of diagram pictures show you how, then you do it yourself and hear it. Everything to make learning a joy. Nothing to make you lose patience. No headaches. In fact, the U. S. School of Music has made the reading and playing of music so downright simple that you don't have to know one note from another to begin.

Play Real Tunes From the Start

Your first thrill comes with your very first lesson. For you are given a piece with a real melody to play by

actual notes. Dreamy waltzes, heart-throbbing ballads, stirring marches, sparkling sonatas, restful etudes follow in short order. No standing still. Progress is rapid. In this way, you become a capable performer months sooner than you could ever expect to the old-fashioned way. Yet, no matter what instrument you select, the cost of learning is the same—just an average cost of only a few cents a day.

Not only that, you receive all the music you need at no extra cost. With every lesson comes a specially selected and graded piece, which is yours to keep, enjoy and play to your heart's content.

Play the "Blues" Away

How can you be content to sit around at party after party and listen to others do all the playing—hear them receive all the compliments—see them showered with admiration, attention, invitations—when your lifelong ambition to become a popular musician is now so easy to realize. Get in the musical "swim" yourself. Watch the singing, happy crowds gather around you as you play the latest syncopation. Experience the personal satisfaction that comes from being able to play "when," "where," and "what" you like for your own amusement and the entertainment of others.

you need special "talent." Just read the list of instruments in the panel, decide which one you want to play, and the U. S. School will do the rest. And bear in mind, no matter which instrument you choose, the cost in each case will average the same—just a few cents a day. No matter whether you are a mere beginner or already a good performer, you will be interested in learning about this new and wonderful method.

Send for Our Free Book and Demonstration Lesson

Our wonderful illustrated Free Book and our Free Demonstration Lesson explain all about this remarkable method. They prove just how anyone can learn to play his favorite instrument by note in almost no time and for just a fraction of what old, slow methods cost. The booklet will also tell you all about the amazing new Automatic Finger Control.

Read the list of instruments to the left, decide which you want to play, and the U. S. School of Music will do the rest. Act NOW. Clip and mail this coupon today, and the fascinating Free Book and Free Demonstration Lesson will be sent to you at once. No obligation. Instruments supplied when needed, cash or credit. U. S. School of Music, 503 Brunswick Bldg., New York City.

U. S. SCHOOL OF MUSIC,
503 Brunswick Bldg., New York City.

Please send me your free book, "Music Lessons in Your Own Home" with introduction by Dr. Frank Crane, Free Demonstration Lesson and particulars of your easy payment plan. I am interested in the following course:

Have you _____
instrument? _____

Name _____

Address _____

City _____ State _____

PICK YOUR INSTRUMENT

- | | |
|-------------------------------------|-----------|
| Piano | Violin |
| Organ | Clarinet |
| Ukulele | Flute |
| Cornet | Saxophone |
| Trombone | Harp |
| Piccolo | Mandolin |
| Guitar | 'Cello |
| Hawaiian Steel Guitar | |
| Sight Singing | |
| Piano Accordion | |
| Italian and German Accordion | |
| Voice and Speech Culture | |
| Harmony and Composition | |
| Drums and Traps | |
| Automatic Finger Control | |
| Banjo (Plectrum, 5-String or Tenor) | |
| Juniors' Piano Course | |

Don't be afraid to begin your lessons at once. Over 600,000 people learned to play this modern way—and found it as easy as A-B-C. Forget that old-fashioned idea that

700 YEARS HENCE!

A CLASSIC IN SCIENCE-FICTION

MR. HUGO GERNSBACK, Editor of WONDER STORIES, herewith presents in book form his famous story—RALPH 124C 41+—a romance of the year 2660. This story originally ran in MODERN ELECTRICS, one of Mr. Gernsback's magazines; there are only a limited number of copies of this book available at present.

Fully Illustrated by
the famous Paul

300 Pages



This book is the forerunner of all modern science fiction stories and contains more novel ideas, more future inventions (some of which have already come true) than any book of its kind that has ever been published. It is *science fiction plus*. A pioneer in the electrical and radio field, Hugo Gernsback has a profound knowledge of the subjects, coupled with a finely trained and highly imaginative mind. This unusual combination has enabled him to foreshadow with almost unbelievable accuracy some of the more recent developments. His earlier predictions, which have appeared from time to time during the past decade in many newspapers and magazines, are now realities. Every prophecy is based on accurate scientific knowledge. His ideas are no more fantastic than the realities and commonplaces of our everyday life would have been to our great grandfathers. So many WONDER STORIES readers have asked us if this story can still be secured in book form, that we had a limited number reprinted, as the book was out of print.



COUPON

WS-331

AVIATION PUBLICATIONS,
245 Greenwich Street,
New York, N. Y.

Gentlemen:

Enclosed find \$2.00, for which please send me prepaid one copy of RALPH 124C 41+; this book to be autographed by Hugo Gernsback.

Name

Street

City and State

IF YOU ORDER AT ONCE
MR. HUGO GERNSBACK
WILL AUTOGRAPH
THE BOOK FOR YOU

The book is illustrated throughout by Paul, the well-known artist. There are quite a number of these famous illustrations. The book is large size 7 $\frac{3}{4}$ in. x 5 $\frac{1}{4}$ in., beautiful cover, bound in regulation linen, with a 4-color jacket. There are 300 pages. We urge you to order this book at once as it probably will not be reprinted again for many years.

AVIATION PUBLICATIONS
245 Greenwich St., New York, N. Y.

. . . . Prophetic Fiction is the Mother of Scientific Fact

HUGO GERNSBACK, *Editor-in-Chief*

DAVID LASSER, *Managing Editor*

FRANK R. PAUL, *Art Editor*

C. P. MASON, *Associate Editor*

WONDERS OF THE FUTURE

By HUGO GERNSBACK

IT SEEMS almost impossible to realize that the application of electricity has been practicable for only a little over a hundred years. It is true that the force known as electricity has been in existence in some form as long as the earth itself, and even long before that—in fact for billions upon billions of years. But the fact remains, nevertheless, that electricity as we know it today in the role of a servant to mankind, dates back a little over a hundred years. While the ancients knew something about static electricity, such as that produced by rubbing amber with a piece of cloth, and while they also knew something about magnetism, as manifested by the lodestone, yet the two forces were not thought of as co-related at all, and none of the ancients, in their wildest dreams, could have imagined the wonders of modern or “galvanic” electricity, which now practically rules our very lives.

Yet the forces themselves—that is, electricity and its sister magnetism—were always everywhere about us. The earth had its electromagnetic field; the sun was shooting huge quantities of electromagnetic energy down on us; and there were very many evidences of this power all around us, such as lightning, the Aurora Borealis and other manifestations—but no one recognized and identified them.

There is, of course, no good reason to believe that there are no remaining unrecognized forces. There may be a score of other kinds of energy which our present instruments have no means of detecting, pervading all nature.

Gravitation, for instance, is one of these forces that is everywhere present. What has

been suspected by far-visions scientists is now about to become true in a practical way; because of what Einstein has already tried to demonstrate with his new field theory—that gravitation and electromagnetism are fundamentally one and the same thing. Of course, today we know only the external phenomena of gravitation, and we are just as powerless to overcome it as the ancients were to harness lightning. If the two forces—electromagnetism and gravitation—are finally merged into one, it may then be possible to construct a gravitation generator, just as we are building electric generators and dynamos today. It may then be possible to make gravitation useful to humanity, and even conduct it through long wires or direct it through space, just as we do with the electrical current today.

Of course, the possibilities of discovery do not by any means stop here. There are probably, a great many other unknown forces which may some day be made useful to humanity if we come to recognize them. We know that, with our restricted senses, we are in no position today to perceive even a fraction of what goes on around us. Very recently, indeed, have we found a new form of energy, which may prove to be a tremendously useful one. I refer, of course, to the cosmic rays, which are evidently an indication of some strange phenomena of nature that, in time to come, we may know better. Presumably, the cosmic ray itself belongs to the electromagnetic spectrum and, if so, in time it may be made of service to humanity.

But, as yet, we are as far away from the solution of these problems as the ancients were from the modern utilization of electricity.

The Return *from* Jupiter



A Sequel to "The Rescue from Jupiter"* showing the destruction of one world and the reclaiming of another

FAR out in the black and icy void that separates Jupiter (called Pleida) from his nine satellites, a spark of light was traveling through the darkness—a tiny mite of illumination, trailing behind it a fiery train, like some furious, diminutive comet off its course.

Through airless space it was hurrying, making its way toward Neina, the largest of his habitable moons. It was a space-car, long, swift, gleaming in the pale light of the distant sun like a cartridge of stainless steel. On either side was a row of

round portholes through which the occupants could look out into space.

At the nose a huge lens gleamed dully, a lens that appeared capable of sending a beam of light to illuminate the way ahead. But no light was coming from it now except the reflected light of the sun. The glow that revealed this swiftly passing carriage of space in the darkness through which it passed came from the rocket tubes that propelled it. Along its sides they ran in bundles of five and seven, from a point near the nose to the tail. They poured out their

*The "Rescue from Jupiter" appeared in the February and March 1930 Science Wonder Stories. Back issues are available at twenty-five cents each.

by Gawain Edwards

Illustrated by Paul



Winging their way into the air, as well as from the ground the embattled citizens of Neina started their attack!

energy behind the car in flaming streams, too brilliant to look upon with unshielded eyes.

Near the nose was the cabin that housed the controls. Three men handled the details of the craft's motion, charting a course through the six directions of space as it threaded its complex path from planet to satellite. They were constantly busy with the task, applying more power in one quarter, checking it off in another, swinging the machine to correct every deviation.

There was good reason for their preoccupation for the tensest moments of the jour-

ney were at hand. The time had come when the influences of the central planet and its satellite tended to counterbalance each other, leaving the rocket in its fall to the mercy of the sun's mightier attraction. Nothing could save her from being pulled completely from her path at this point and plunging out of control through five hundred million miles of space into the flaming heart of the sun except the skill of the pilots and their supply of power.

Despite this critical time, the young man at the rocket's bridge—the fourth person in the control cabin—paid little attention to

the maneuvering of the craft. He paced back and forth, troubled, impatient.

"Are we making all she will stand?" he inquired for the twentieth time.

A lieutenant, looking up from his dials for an instant, nodded affirmatively. "We cannot alter her course or speed now," he said. "We are at the critical point. We must slack her away to make a landing. To proceed otherwise would mean a crash."

He spoke respectfully, for the man at the bridge was Allus Marce, the courageous, impetuous, not always wise son of the house of Allus, erstwhile commander of the armies of independence of the four habitable satellites. The lieutenant knew well the cause of his commander's perturbation. Throughout the journey he had put every ounce of power possible behind the rocket; had sped through enormous distances at rates possible only to the swiftest craft of the Neinians, the long, new military ships designed under the direction of the two visitors from the old planet Tellus, the Earth.

Nevertheless, the pace had not been fast enough for Allus Marce. Each passing moment saw his hope for Neinian independence fading. He beheld in his mind's eye how the hordes of squat folk from Jupiter, which they called Pleida, would soon again rule the graceful peoples of Neina and the Satellites. There was only a chance—a desperate chance—But could he make it . . .

Allus Marce trembled inwardly when he thought of that one expedient by which the satellites might gain freedom forever from the tyrant. A grisly expedient, a ghastly plan—if only—

"Did you see the long lines of Neinians enslaved?" he demanded of his aides, feeding his wrath against the Pleidans by recalling their outrages. The lieutenant looked up grimly, nodded.

"Thousands of them," Marce went on. "They flaunted them at us! I can see them now—Neinian women, children, men who had been tortured until they no longer bore resemblance to anything but Pleidan beasts. Forced to work in the uranium mines, the platinum mines; maimed, starved, diseased!"

THE lieutenant hastened to calm him. "But what could you do? Our allies—"

"Our allies!" Allus Marce gestured with anger and exasperation. "They bartered their birthright—for what? For the freedom of their few enslaved, in order that they might all be made victims of Pleida. The allies! Now we know how little they can mean to us—how little they have ever meant to us. Neina stands alone!"

They could see the growing image of the satellite beneath them, dead ahead. It had been large as an apple, then like a dinner-plate. Now it had begun to take on character; to become a spinning earth before their eyes, a globe upon which people lived,

THIS masterly sequel to "The Rescue From Jupiter" deals with great stirring events of three worlds. The "Rescue" left many important questions to be answered. Would the earth remain a barren and lifeless world with its two lone survivors as guests of the people of Neina, satellite of Jupiter? What would be the relations between the Neinians and the Jovians—and finally what would our Neinians do if they discovered that their world would soon be uninhabitable?

Here is a story just filled with thrilling events and stirring deeds. We see great heroism on one side, cowardice and despair on another. We see a world enslaved and another made free. As usual Mr. Edwards tells his story with restraint, yet in a powerful and dramatic way. He whirls us through space hundreds of millions of miles, whirls us back, shows us through his words the upheavals that are let loose when vicious and depraved men set out on conquests of greed and hatred.

worked, sought freedom and happiness.

Allus Marce's eyes were filled for a moment with moisture as he beheld and recognized it. Neina, which the Pleidans contemptuously called Noninus—this satellite that was itself larger than the planet Mercury and nearly as large as the planet Mars, warmed as was Pleida by internal fires, green on the surfaces of its continents, its oceans filled with heaving water, its people tall, stately, white and winged.

In the heavens he could make out now another of the satellites. Quena, which was as large as the Tellurian moon and also inhabited. Somewhere in this vicinity in space was also the warlike satellite Helva—little Helva whose brave struggle against the despots of Pleida had all but depopulated her; whose people were now weary of war and eager for peaceful counsel, however false. Alas for Helva, Quena, Luana—they were now in the hands of the enemy. The court of Dolmician would have its way with them. But Neina still held out.

They could discern the continents of their beloved world, the mountain chains, the oceans and large lakes. The swift rocket-car was already slipping into the first of its braking ellipses, the concentric rings of flight that would bring her closer and closer to the surface until it was safe to land.

Allus Marce was swept by alternate waves of eagerness and dread. His people; how would they take this news? His father; he would be seriously affected by the blow that had been dealt them in the conference on Pleida! He strode back and forth, back and forth in the cabin. Neina seemed so close that they might almost reach out and touch her; yet she was far away from them still as measured in the time that must yet elapse before they had slowed

sufficiently to land.

Allus Marce was too expert himself in the guidance of rocket-craft to interfere with the course selected by his engineers. A tiny slip now might be fatal to all of them, and to Neina's hope for ultimate independence as well. It was Allus Marce alone who had the desperate plan that might succeed.

The Neinians must not lose courage; they must not give up!

"Perhaps we can reach them from here on the radio beam," he said. "We must make a good contact before we say anything; we must make sure that our beam is not diffused. No one must hear what we have to say now except my father and the heads of the families of Neina."

An aide pressed a signal button above his head. Allus Marce strode aft toward the radio cabin, where two men worked with their apparatus. For several minutes nothing happened, then one of the operators looked up, smiling. "We have the palace at Ancienda," he announced.

"Who is there?"

In response to the commander's question a screen lighted up. Allus Marce beheld three persons in a room, the observation gallery atop the palace tower. They were his father, head of the house of Allus, and the two Tellurians, Nina and her father, the only surviving natives of Earth.

The young man's eyes passed from one to the other of them as the operators worked to bring the image into better focus, to narrow their communication beam, excluding all interference. He saw that much of what he was hastening to tell them they already knew, either by guessing it from the speed of his flight or by other observations. Through the curved roof of the gallery a huge telescope projected into the heavens, and upon a screen in the room Allus Marce beheld a picture of that portion of the sky



GAWAIN EDWARDS

toward which the Neinian telescope pointed.

With increasing foreboding he perceived that they had been watching his fast flight through space from Pleida. They had also seen something that had escaped him. At the surface of distant Pleida a great space-fleet was already gathering—an army of invasion such as had never before in the history of the planet been concentrated for the subjugation and punishment of a single satellite.

The impressiveness of the preparations were apparent even at that great distance, revealed through the huge telescope. Allus Marce saw on the screen of the observation gallery, as reflected to him by television from Neina, that the armies of the invaders were already marching stormily on the surface of the planet, converging upon mobilization centers like long trains of indistinguishable insects returning to their burrows. Part of the prodigious transport fleet of the Pleidan army was already assembled at these mobilization centers, ready to receive the recruits and bear them to Neina when the signal came.

"I Have a Plan"

THE telescope had also mirrored something else: hundreds of fighting ships of new design, shimmering wasps of the air and space, on maneuvering flights above the planet's surface, testing their equipment. When Allus Marcus saw them he gasped. The Pleidans had new ships like those of Neina. Someone among the allies had already given away the secret of the Tellurian power! In the airless miles above the planet's shell they were practicing like droves of broadwinged birds, their swift paths marked by tiny rivulets of fire.

The young commander shuddered involuntarily, remembering sights that had met his eyes on Pleida only a few hours before. Behind all this movement and display he saw the sullen, sinister purpose of the emperor of the planet, Dolmician, the squat tyrant to whom mercy was unknown, whose only interest in the satellites was to conquer and enslave them.

Allus Marce saw that he was not alone in

his foreboding. As the images of the three persons in the observation gallery brightened, became refined and clear, he saw that the countenance of his father was heavy, troubled, showing lines of strain and sleeplessness. The old man from Tellus was preoccupied, no doubt with some invention or investigation upon which he was working. The Tellurian was the greatest of scientists, begrudging every moment spent away from his laboratory, yet nobody in all Neina knew on what he was working.

But Allus Marce's eyes lighted when he at length beheld Nina, most beautiful of the last generation of Earth. Nina, for whose rescue he had risked his life and the safety of his satellite. He saw her smiling at him. Her lips moved in thankfulness at his nearness and his escape from the dangers of the Pleidan conference. He could see her speak, though there was as yet no sound accompanying the movement of her lips.

"Is the beam ready?" he asked impatiently.

The chief operator threw a switch. A bank of yellow tubes suddenly glowed. "It is ready now," he said.

In a second Allus Marce heard distant voices. Gradually they grew more distinct. They had established communication at last with the satellite. He must now speak quickly, telling them what to do.

His father seemed to step forward in the distant room, toward him.

"My boy," he said, "what is it? We have waited for you."

Allus Marce's eyes grew misty for a moment at the pathos and resignation in the old man's voice, but he could not hesitate to tell the truth, when Neina's fate hung by a thread.

"Father," he said quickly, "Neina has been betrayed. Our allies have deserted us, our hard-fought victories have turned to defeat, and Neina must stand alone for freedom or give up to a slavery more frightful than any ever visited upon the satellite!"

He saw the old man quail as if he had been dealt a body blow. "Betrayed!" He repeated the word hollowly. "For what?"

"For the release of their prisoners in the

Pleidan mines. Dolmician met us ostensibly to talk of peace. Craftily he seated us so that we might see the prisoners as they herded them from the grisly metal works before us. They saw us, fell down in the dust to plead with us, crying out for liberty, rest or death. Torn as they were by war, the leaders of the allies were unable to stand the sight.

"They fell to bargaining, and Dolmician made them great promises—double-meaning promises if they would sign pacts with him for continued federation. In vain I pleaded with them, my father. They would not—could not see that freedom for themselves and us was worth more than the lives of a few miserable slaves. We had beaten Dolmician, yet with his crafty playing upon our emotions he tricked them into throwing it all away—"

"But you?" asked his father hoarsely. "You held out?"

"I did. He flaunted the Neinian captives at me. He caused swordsmen to come before us and cut them down, and to inflict unspeakable tortures upon them before my eyes. Still I would not yield, though the cries of the wretches will ring in my ears until my dying days.

"Dolmician," I said, "I come to make an end to war, but you compound the injury. I shall withdraw, and if my allies do not join, then Neina alone will resist you!"

"He laughed like a demon. 'Your allies will not come,' he declared. 'Their blood is turned to milk by the leprous scabs upon the backs of their countrymen. And you, too, had better sign my pacts with me, or all of your race shall perish in the mines!'

"And if I sign?" I asked. He smiled craftily, 'Why then, of course I'll release these fools, but you will pay tribute as will the other satellites in platinum and uranium from your own mines. Produce it by free labor or slavery as you will, I will wring enough of it from all of you to support our population without labor for the rest of the planet's days!'

"It was then, my father, that I rose and brought the business to an end. 'You are a fat pig!' I shouted at him within hearing of all the princes of his realm, and as quick-

ly as possible I boarded the space-car and took off for Neina, while behind me, even before we had started the rockets, we heard rumble of preparations for invasion and war."

The head of the house of Allus was suddenly regal, erect. He was a flaming taper of wrath against the brutal Pleidans, an old wax candle but nevertheless a strong one, alight with anger, desperation and love for his people. Allus Marce, from his ship in space, saw it and rejoiced.

"Call together at once the heads of all the houses of Neina," he said. "By the time they have arrived I shall have alighted. We will tell them the truth; they must understand that this is to be the bitterest war Neina has ever seen. I have a plan—" his eye fell momentarily upon the old man from Tellus, who was still wrapped up in his own secret thoughts—"that may save us—a desperate plan, but one that will work!"

"In the meantime," replied the head of the house of Allus, "we shall begin a new mobilization. When the ships of Dolmician reach Neina they will learn that there is vigor in this dying satellite still!"

"Dying satellite?"

The old man's eyes fell momentarily. "A slip of the tongue, Marce—but nevertheless— Well, it is of no consequence now!"

"Freezing satellite," murmured the old man from Tellus, speaking his first words in many minutes. Nina heard him. Allus Marce saw her clutch his arm.

"What are you talking about?" he demanded.

"It is nothing, Allus Marce!"

"Nothing is important now, Marce," declared Nina tenderly, her warm eyes upon him through the cold miles of space that separated them, "except that you come quickly and safely, to lead your people!"

SOMETHING was wrong with the communication apparatus. The images blurred. A tube snapped; the screen went black. The voices died to a murmur, went out. Allus Marce found himself staring at the empty square through which he had just been transported, so it had seemed, to

the observation gallery of the palace at Ancienda. He turned angrily to the operators, but they were already at work trying to find the difficulty.

"Some new interference," said one. "Someone tapped in; blew out our circuit. I never knew it to behave like this before!"

Allus Marce went out of the room furiously, filled with strange fears and impulses. "Something is wrong on Neina," he declared. "Can we go down no quicker?"

The lieutenant shook his head. "Not unless you wish to take a long chance," he said. "We might be lucky—"

Marce saw what he meant. He glanced out of the window, trying to estimate their speed, the distance to the satellite, all the variables that might affect their course.

"If there is a chance—let us descend!" he ordered impetuously. "Plunge the ship obliquely into the sea. She is a staunch craft. We can ride it out!"

The man at the forward wheel saluted without comment. The blasts of the rocket tubes at the rear diminished, heightened, diminished. The rocket-ship yawed over. The world beneath them seemed to reel and twist. It came dashing upward at a furious rate.

"Slacken away there. Put on the rockets at the nose!"

The grim, sweating aides threw a long lever forward, preserving their balance perilously as they did so. There was a burst of heat. Streams of fire flew upward past them from the nose as they plunged downward through the clouds of flame shot forward by the concealed tubes. The ship was enveloped in a fury of fire as the speed decreased. Blood pounded in their temples.

"And now—the sea!"

A warning bell sounded clamorously. The mechanics came swarming forward from the fuel reservoirs and the pumps, seeking their hammocks against the shock they knew was in store for them. The officers lashed themselves to spring-mounted stanchions at their posts.

Allus Marce glanced once more at his satellite, his world. The water was beneath them, rising at a terrific rate. How fast this

face came up toward them—this ocean's blue-green, friendly face!

He fastened himself into his own hammock.

Seconds passed that seemed like hours. To their ears now came a faint, shrill whistle; the rushing sound of the atmosphere as it passed over the rocket-car's gleaming sides. Despite the cooling pipes imbedded in every wall the heat grew intense.

Then they felt the crash. Where there had been fire there was now a tremendous cloud of white steam. Their course had brought the rocket down so that it barely skimmed the surface. Over the top of the water they skipped like a boy's skimmer, the shining craft sending up spurts of hot vapor from its glistening sides. At that speed each wave was like a solid wall.

CHAPTER II

The Tellurian's Secret

A PORTION of the palace of Allus at Ancienda had been set aside for the exclusive use of the visitors from Tellus. In this part, amid the graceful ornamentation with which the Neinians loved to surround themselves, the old man and Nina waited while Allus Marce, rescued from the ocean by swift ships, sought private audience with his father.

The Tellurian patriarch, with the quiet humility that had attracted the Neinian populace to him from the first, had withdrawn voluntarily from the observation gallery, knowing that Allus Marce would wish to confer with the head of the house of Allus before going before the council of elders on the matters that confronted the satellite.

"Nina," he said when they had reached their own chambers, "We are homeless wanderers in the universe, and whether you would have it so or not, our welcome here depends primarily upon what we have to give in return."

She looked at him quizzically. "The people of Neina have treated us royally," she observed.

The old man was silent for a moment, reflecting. "That is true," he conceded,

"They made life possible for us when we were about to gasp our last breath, and we cannot complain on any score concerning their attitude toward us on this satellite—and yet—"

He seemed to wander in his thoughts. Nina, used to him, was nevertheless perturbed by his increasing preoccupation. She knew that he had passed his time since their arrival on Neina in almost ceaseless research, either in his laboratory or in the mountain fissures that split the satellite deeply in the regions once worried by earthquakes, but now quiet. Part of what he had learned in these studies had been disclosed to her, filling her with uneasiness, but most of it was still a secret known only to the old man himself. As to what he had been at work upon in his laboratory she had no idea. That part of their quarters he had reserved strictly to himself.

But now, following a brief interval of quiet, he rose and took her by the hand. "I do not know why," he began, "but I feel that our peaceful existence of the last few months here is at an end. Whether this end is a matter that concerns us two alone, or whether it portends terrible things for the satellite as well, I cannot tell.

"But Nina, I have this to say: Allus Marce is an upright young man. Into his hands I can commend you with faith in your future happiness. As for myself—I am an old man who has seen much—too much—"

She perceived that his eyes were burning brightly, feverishly. "You must not excite yourself so," she said. "You are upset, as we all are, by the knowledge that this war the Neinians fought so assiduously and which they thought won, is not finished."

The old man replied gravely. "That is partly true, and yet it was not such a surprise to me. I have studied the full history of a planet—he paused almost imperceptibly—"that was a battlefield throughout its time. I have learned that war is never finished; I have also learned that no question, no matter how important or how trivial, was ever settled by war."

"Yet you would not deny the Neinians the right to fight when their independence is threatened?"

The Tellurian grew thoughtful. "I knew a nation that fought bitterly for freedom and won it—only to enslave itself—"

Nina shrugged her shoulders impatiently, thinking of Allus Marce and his words to her, of the hours they had spent together, of the bright future that both had hoped for when this frightful struggle with Pleida should end.

"Nevertheless," she said, "if the war is not over we will continue to fight, and the Neinians will win their victory through the war machines you have taught them to build from your Earth science. Neina must be free, and Allus Marce, before all others, will lead his people to liberty!"

Her father paused in his thinking to look at her. "You are a Neinian already!" he exclaimed.

She threw back her head proudly. "Yes," she said. "I am the betrothed of Allus Marce, and shall be queen of Neina."

"My child—alas for the queen of Neina—when Neina is no more!"

"Father—what do you mean?"

Silently, as if he had not heard her, the old man moved about the room. The doors were closed against the world; nevertheless they could hear through the hangings of the apartment the rushing sounds of many excited feet in the halls, the faint, far-away shouts of people in the streets and in the great plaza, the tumultous arrival of the heads of the great houses of Neina. The patriarch paused to listen to these manifestations of the national crisis, dismissed them from his mind, resumed his aimless puttering.

AT length he turned and came back to Nina, who had been standing throughout his talk and subsequent pantomime like one who is struggling on the verge of some half-remembered thought.

"I do not know how much longer we will be left alone," he said gently. "I wish to show you something before we are interrupted, Nina."

He took her by the hand, and together they walked to the huge doors that guarded his private laboratory. He pressed the lock; the portal was opened by an invisible, silent

mechanism that responded to his will. They walked through into the domed rooms beyond. Nina was struck with the strangeness of what she saw.

About the walls were work benches. At the rear a furnace glowed dully, ready to be stoked into raging heat at the turn of a key. The place was filled with glass tubes, bulbs, misshapen metal, discarded articles that littered the floor.

But dominating all was a huge machine that occupied the middle of the laboratory, mounted upon a platform that accentuated its bigness, made it seem something like a sleeping monster.

At first Nina thought it some new, weird instrument of war that her father had devised for the use of the Neinans. Atop it, partly protected by a bright metal shield, was the hugest of the tubes of the laboratory, its reflecting mirror trained downward against some coiled stuff beneath. Huge metal bottles fed the device with gas. The tube above glowed a little, quiescent, like the eyes of a monster that has no anger in its heart; nevertheless filled with baleful warning.

The old man laughed as Nina shrank away.

"For all its sinister appearance," he said, "it is no destructive machine. No! I have designed machines of war enough; this is a servant and slave of peace!"

"But what is it? What can it do?"

The old man chose to be mysterious. He smiled quietly. "This is my machine for undoing a great folly," he replied. "This is my machine for repopulating the earth."

"What?" The girl's eyes opened wide as she caught his meaning. "Do you mean—? Is it possible?"

Her father nodded solemnly.

"But how? What can this machine—?"

He raised his hand for silence. At their door a new commotion had arisen; a more pointed one, directed at them. Someone was pounding upon it, calling out loudly.

Hastily the old man bundled his daughter out of the laboratory and closed the huge portal. Then with dignity he approached the chamber door, opened it.

A page was outside, apologetic.

"I am commanded to deliver this message to the visitors from Tellus. The council of the heads of the great houses of Neina has convened. The presence of the Tellurians is desired at once."

The patriarch sent a significant glance at Nina, but she appeared in no wise perturbed. "Very well," he said, "we shall come at once."

"Nina," he observed after the page had departed, "this is no ordinary summons, and I am inclined to believe that it is no ordinary request they are about to make of us."

She nodded.

"Then let us remember"—his voice grew grave, troubled—"that while we have become greatly indebted by the hospitality of these people, there is one thing between us that we have sworn to keep secret, even though our lives are forfeit." He looked sharply into her eyes. She saw his meaning there. Her own eyes grew serious.

"That one thing I shall never reveal," she said simply, "even though Allus Marce should ask it."

"And he will, never fear," replied the old man. "It is that one secret that we are now about to be called upon to reveal."

The Council of Neina

THE meeting hall of the heads of the houses of Neina was an enclosure vast and impressive as the history of the satellite itself. Within it, from antiquity, had been held the most important meetings of the race. Its walls had rung to the strophes of that curious oratory peculiar to the Neinian language.

Its ancient, fretted ceiling, fashioned of concentric ovals that caught up the speaker's voice and flung it hardly diminished to all parts of the auditorium, had witnessed the coronation of kings, the election of democratic rulers, the overthrow of ancient customs, *coups d'etat*, and all the panoply of history from the time of the first *Insevestas* to the present.

It was such a hall as any world might be proud to own, achieving as it did a kind of national expression; a greater monument to the skill, intelligence and art of the Neinians

that any conscious work of art could ever have been. It was particularly impressive when, in their bright robes and headgear, the nobles of the satellite were assembled there.

Upon the dais along the side—a dais that glittered with the gems of Neina and the jeweled lamps fashioned by the best craftsmen of the satellite's ages—sat the heads of the foremost houses. In the center of them all was old Allus, and beside him Allus Marce, now respectively ruler of Neina and commander-in-chief of her armies.

Like a turbulent, scarlet sea, the lesser nobles in the pit rose when the old man from Tellus and Nina entered. They uttered no sound, but each man held aloft his left hand in token of fealty to Allus and in welcome to the visitors from Earth. The visitors were seated near the head of the house of Allus, and then only did Allus Marce break the silence with his recital of all the horrors of his visit to Pleida, of the Neinian slaves that had supplicated him, of Dolmician's barbarities and cruelties, of the desertion of the allies.

The listeners murmured, stirred with anger and indignation.

"For twenty-nine circlings of our satellite* around the planet Pleida," he said, "we have fought for freedom against Dolmician's fighters of the air and space. With the aid of our allies, making use of the many new and horrible weapons of war designed for us by our friend from Tellus, we beat them back until they finally acceded to our demand for talk of permanent peace.

"But our allies were all but exhausted. You know the rest. When we would have conferred upon terms of peace and independence Dolmician tricked them, played on their sympathies, traded them false security for real freedom, caused them to betray us and the cause of liberty we had espoused."

When he paused the rumblings of the listeners swelled to a sullen roar against Pleida. They cheered wildly as he declared that he alone of the allies had held out, had rejected the terms of shameful peace.

*Neina is the largest of the satellites of Jupiter, known to us as Ganymede. It completes its orbit in seven days and four hours.

"For I alone, of all the leaders, knew of a plan by which the proud, overbearing race of Pleidans might be forever overthrown, their lands laid waste, their ugly temples forced to go untenanted, their cattle and all living things on the planet turned to dust—"

Allus Marce waited dramatically for the full effect of this announcement. As though electrified, the entire assemblage of the heads of the houses of Neina rose to its feet. A plan to wipe the Pleidans out of the universe! What could young Marce mean?

The young commander appeared not to be ready to enlighten them. In the hush that followed the first reception of his announcement his father spoke:

"My son, if you have such a power, do not keep it from us! What is this plan?"

Allus Marce smiled. "I will have to tell you a story," he replied. Out of the corner of his eye he glanced at the Tellurians. The old man was staring straight ahead of him, Nina, only half comprehending what Allus Marce had said, was watching closely, waiting for him to continue. The head of the house of Allus spoke again.

"Proceed."

"Some deismas ago," Allus Marce began, "we brought to our world two homeless ones, the visitors from Tellus. With them came many marvels to delight our people and to aid them in their battles against Dolmician. But the greatest of these marvels they have not yet revealed to us. It is the marvel that destroyed their world.

"Let me tell you something about that world as I saw it, upon the first journey ever made there from Pleida. I was then an humble member of the expedition headed by Salvarius Carde, whose doings as lieutenant to Dolmician have since been much to our detriment. In those days there was peace between the satellites and Pleida, and there was time and energy for the exploration of the universe in the new space-ships designed a short time earlier by the scientists of Neina, but taken over by Dolmician for the use of his own explorers.

"We landed upon Tellus after many weary adventures in space, hoping to find there a race of living, intelligent beings,

fresh fuel for our ship, and perhaps new and startling things to report upon our return. That there would be men upon the earth we had no doubt, for had not a ship come out of space from Tellus many generations past, bearing these inhabitants on a friendly visit to our satellite?

“**A**LAS for our hopes. We found Tellus dead and uninhabitable. In the enormous open spaces that formerly were supposed to be covered with water we discovered only tremendous dry fields of salt. Even at the poles, where ice-caps had once lain, there remained almost no moisture. The arid backs of the former continents were heaps of sand and rock, devoid of vegetation and all forms of life. The earth was a sorry remnant of a world, dead before its time, no longer fulfilling its destiny of life because there was no water to sustain living beings on its surface.”

Allus Marce drew a deep breath, perceiving that his listeners were deeply impressed with this recital.

“The good fortune befell me,” he continued, “to find the last remnant of the many populous cities that only a few years earlier had spread themselves upon this globe. Upon the command of Salvarius Carde to search every corner of the planet for signs of life, I like the others passed over the illimitable deserts. At length I came upon a valley miles in length, and of a depth that indicated it immediately to be the lowest spot on the surface of the planet.

“I entered cautiously, moving slowly, close to the surface of the ground, my eyes seeking for any trace of the lost man-beings that our lore told me had existed on Tellus. How shall I describe the scene that met my eyes? The floor of the valley had once been level sea bottom, and its walls were rocky cliffs descending into the earth. As the water of the oceans had dried up, vast deposits of salt, deeper and of a clearer substance than I had ever seen anywhere, had fastened themselves to the sides, the floor—everywhere in the depression. It was like entering a valley strewn with layers of the finest cut jewels. The sun’s rays were reflected, multiplied, until the glare was

blinding. And everywhere was eternal sterility.

“At length, examining ledge after ledge, I came to the bottom of the valley, which was like some hot, insufferable furnace of dryness and heat. There I found what remained of a great city. Like an avenging power the sand and soil had crept it upon it, had poured over the high cliffs on either side, had swept up into and through that city until it was all but buried. The weathered tops of the huge stone buildings were all that was to be seen.

“It was at that spot that the last of the earth’s races had fought their losing battle with death and extinction. It was there that the last lake of Tellus’ water had lain, until fearful dissolution had overtaken it as it had overtaken all the rest. Now that world is but a dead planet, coated with crystalline salt, dry, lifeless.

“I paint you this picture carefully, completely, because I am drawing for you a portrait of proud Pleida as she will also appear—if we make use of my plan.”

There was a sensation as he seemed to finish. Drawing his robe about him he waited, silent, as the listeners held their breaths for his next words.

“And that plan?” burst out old Allus.

But Allus Marce swept aside his questions and went on again. “On a later expedition, headed by myself and undertaken against the wish of Dolmician, I found our two visitors from Tellus”—he paused to bow in the direction of Nina and her father, who were silently regarding him—“hiding in a cave, beside a miserable and fuming pool, into which the mysterious ferment that had destroyed all the earth’s other water had already fallen.

“That ferment, lords of Neina, was a product of Earth’s many wars. It had been created by one tribe in its conflict against another. Alas, it had gone beyond control, had in time destroyed all water—that of friends as well as the enemy against whom it was directed.

“Our visitors, I am convinced, know how this ferment was made. It was an alloy; It could be made here on Neina and planted by fast space-ships in the seas and lakes of

Pleida. And there would be no more talk after that of attacking Neina!"

The lords of the satellite perceived the daring, the supreme audacity of this stupendous plan against Pleida. For a full minute they were silent as if stunned. Depopulate Pleida by destroying all her water. Impossible! Inhuman and wanton! But yet—

Somewhere—in a far corner of the vast auditorium, a rumble started, a tumult of applause. It spread over the assemblage in ripples, waves, thunderous breakers of applause, shouts of approval, stampings on the floor. Even the conservative lords, swept off their feet by this unprecedented proposal, were moved by the crowd hysteria about them and ceased their objections.

CHAPTER III

The Dread Prophecy

ONLY the patriarch of Tellus and Nina, his daughter, remained with averted faces. The old man, trembling, reached out and seized her hand, squeezing it. "It has come—as I expected," he murmured.

"I will remember my promise!" she replied firmly. "No matter who shall ask it, I will not tell that secret and destroy another world!"

They saw that old Allus, robed ruler of all the houses of Neina, was standing up, holding out his hand for quiet. Slowly, almost reluctantly, the tumult subsided, the applause and shouting died away.

"Friends," he addressed the lords assembled. "Upon Pleida the forces of Dolmician are already forming. At any moment—perhaps even now, they may begin the flight that means battle and perhaps death for us. We must act quickly. By your applause I judge you have accepted Allus Marce's plan—"

A roar that threatened to be even more thunderous than the first, began among the listeners, but old Allus quickly shut it off.

"If we are agreed," he declared, "then I demand"—he turned to the Tellurians—"I demand that these, our guests, tell us the

process by which this strange and dangerous substance may be manufactured!"

Nina, impetuous, would have leaped to her feet with a cry, but her father quickly restrained her. "Whatever happens, say nothing," he cautioned her. "We must be careful. After all, we are Neina's guests!"

With alacrity he then rose to his feet, standing directly before old Allus.

"Friends," he declared, "no man is more indebted than I to Neina; no man has brought less to her, or received more from her. It has been my humble privilege to aid the satellite in some of her battles. What help I could give I gave gladly, and I have been amply rewarded.

"But as for your new request—let me revert for a moment to the picture of our Earth as Allus Marce painted it for you. Think of it: the green earth where once billions of men not greatly unlike yourselves once lived; the green earth that burgeoned with limitless good things in sea and air and on the land, teeming with trees, grass, fish, flesh, fowl, the pleasures of living and travel, good food, happy homes. Where are those wonderful things now? Allus Marce spoke the truth—they are all gone. They perished miserably in the passing of all the water from the earth.

"Lords of Neina, think! Think what this means, to depopulate a planet, to make it uninhabitable! Outside our system we know not what there is. It may be that yonder in the endless sky other planets wheel around other suns, that happy peoples live there amid pleasures of which we know nothing. But be that as it may, such endless distances separate us from them that we shall never know what they do there; what they are thinking about, what hopes and joys are theirs. We have only the system of the brilliant sun; his planets are our only homes.

"And of his planets, nine in number, which are suitable for living things? Mercury is far too hot, Venus too wet. Mars is fair, but beasts of strange and poisonous sort overrun it. Men have never yet succeeded in planting colonies there. Jupiter, or as you call it, Pleida, is habitable, as are four of her satellites, thanks to the internal

fires that heat them. Beyond these lie the outer planets, cold and dead; huge lumps of frozen stone, coated with the ice of carbon dioxide and hydrogen.

"There is, then, only Tellus and the system of Pleida. Of these the earth is now a desert, unfit for life.

"Lords of Neina—would you voluntarily destroy another planet—leave only these satellites in all the universe, so far as we may know, to carry on the fitful gleam of human life?"

Allus Marce was filled with the hot blood of youth; his anger was still warm against the people of the mother planet. He perceived what the old man's words were doing to his listeners. He leaped to his feet.

"If that planet supports only such misshapen creatures as these squat men of Pleida," he exclaimed, "I say destroy it and its life with it!"

"But Allus Marce—Lords of Neina—!"

The young commander blazed at the old man: "What would you have us do? Lie down and let them enslave us to save the solar system? No! The war is not over. We shall continue to fight with whatever weapon comes to our hand. Neina must be free!"

The man from Tellus faced him calmly. He was like a Jeremiah at the end, prophesying doom. He raised his withered arm and placed it on the arm of his young host.

"Wait," he said. "Do not be angry with me. Our sympathies are necessarily with you—our lives are bound up with yours.

"But when you speak of fighting, stop and think. You may conceivably win against the powerful armies now gathering on Pleida. With the frightful weapon you have just asked of me you would certainly destroy her and the armies with her. You would then have won freedom for Neina—but to what avail?"

"ALLUS Marce, you have not been told what your father already knows; it is time you learned it now. I will remind you that your satellite is located far from the life-giving heat of the sun. Since the beginning of Time it has depended for heat upon the hidden fires in its interior. Think,

Allus Marce—are your people not already suffering from the coldness of your streets and fields? Are they not already spending the major part of their time indoors, over artificial fires?"

The old man waited for a moment dramatically. Then he turned to the huge assembly. "Sometimes it requires a stranger to point out truths to us. This is the thing I wish to say to you. The unrest of Neina has been stirred up by heartfelt rebellion against the oppressions of Dolmician, but while your wars have kept the attention of the people far from home, life has been growing increasingly harder on your satellite. While you may fight successfully against the mandates of the lustful emperor, you have at hand no remedy for the inexorable cruelty of nature.

"In brief, *Neina is growing old*. Some subtle change in her internal chemistry has been taking place for generations. Lately this change has been progressing cumulatively. Now with each swing around her mother planet the lowering of her temperature is so great that it is plainly noticeable. Neina's furnaces are dying, and in a few more tens of *deismas*—in a generation or two at the most, she will virtually be a frozen world!"

Allus Marce looked into the old man's eyes and saw sincerity there. It had suddenly become clear to him, the perturbation of his father as it had been reflected in the television, the chance remarks of the Tellurian scientist, the feeling that some doom greater than the threat of Dolmician overhung his world. He glanced from the old man to his father, and saw old Allus standing with averted eyes.

"Father—is this true?"

"Allus Marce—he has convinced me it is true."

Old Allus's sentence echoed in the silent room like the crack of doom. He repeated it slowly, as if himself a stranger to its meaning, yet sure, too, of a subtler content than any of the others had yet grasped: "This scientist from Tellus has made tests—exhaustive, final. He has convinced me that it is true!"

The reactions of an audience, even a cul-

tured, carefully selected one, are often those of a group of animals. A crowd will grow panic-stricken, will mill and bellow under circumstances in which every member of it would, as individuals, remain calm and poised like a good soldier amid the terrors of the battlefield.

The lull that followed old Allus's second declaration of faith in the Tellurian's astounding assertion was like the silence that often precedes the greatest furies of the elements. For a full minute hardly any man in the assembly hall stirred. Then suddenly, here, there, a rumbling began. Allus Marce, stricken dumb for a moment by the disclosures that had swept all his carefully made and much cherished plans out of the window, stood like a statue of marble on the high platform, beside the old man from Earth. Together they heard the storm below them begin to break.

Somebody shouted abruptly, amid the growing clamor:

"Proofs! Proofs!"

Another took it up: "Where are your proofs that Neina is growing cold; that all the satellite is doomed?"

Allus Marce held both hands up and stilled them. The old man spoke again.

"Lords of Allus, there are proofs enough—but today you have no time to go into that. To show you what I have learned would take hours, perhaps days—and as we stand here the hosts of Pleida, gathering to conquer and enslave all the peoples of this satellite, may be already awaiting the signal to launch into space!"

"But, by Deimos, Tellurian! You have robbed us of a reason for resistance, without giving us any comfort or hope!"

The old man waited for the tumult to subside, then continued calmly:

"You are wrong. I have a proposal to make: Of all the men of the solar system, I alone hold full and undisputed title to an entire planet; a planet near enough to the sun to enjoy its life-giving warmth; a planet neither too large nor too small; a planet capable of sustaining ten times the population of Neina and more.

"Lords of Neina, you have been my most gracious hosts. In return accept my invita-

tion to you and your people to repopulate the earth. Abandon Neina to the Pleidans and to the cold; come with me to Tellus!"

"Arm!"

"**B**UT you have told us, and I have seen it with my own eyes," cried Allus Marce, "Tellus is dry. She is dead and uninhabitable!"

"Yes—at present it is—" The old man's eyes snapped. "But what if I were to tell you I had found a way to bring water back to that arid globe?"

"Have you?"

"For many months I have worked alone in my laboratory. At last I have contrived processes that will manufacture water from the nitrogen-bearing atmosphere of Tellus. I have tried it experimentally and it works! With my apparatus and a thousand replicas of it we can put the atmosphere of Tellus back into the oceanic basins where it belongs, restore living things to the planet, and make it habitable!"

This announcement, topping all the others the Tellurian had made, left the great lords in the meeting hall temporarily stunned. Even Allus Marce and his father were at a loss for words. The whole assemblage was silent, its members gaping at the old man upon the platform who had had the audacity to suggest that Neinians forsake their home satellite to repopulate another globe, and who had as calmly declared that one of the miracles which had been sought throughout the ages, the controlled transmutation of elements, could be performed at last.

But they did not have long to stand there silently. Even as they contemplated this new element in the climactic jumble of events of the last few hours, there clanged through the chamber the great tones of a hidden bell; the tocsin gong of approaching danger. Like the fulfillment of a prophecy a portion of the wall beside old Allus lighted-up with the characteristic glow of the television. In a moment the image of Neina's foremost astronomer stood before the assembly.

"My lords," he declared, "the enemy fleet has already launched from Pleida!"

Old Allus turned quickly to the screen. "They have started? How long have we?"

"We have only one circling of the mother planet* in which to prepare!"

Immediately the spell of the old Tellurian's words left the lords of Neina, and there was questioning, discussion, confusion in the meeting hall. Should Neinians accept the invitation of this half-mad old man and abandon the satellite? If they should, what would be the consequences?

There were many who, despite their affection for the earth that had brought their race into being, were for immediate abandonment. They pointed out that the Tellurians were not unlike themselves, except that they had no wings, were somewhat heavier of body, and more muscular. This argued that conditions on Tellus were not too greatly dissimilar from those on Neina. It was therefore a feasible project from a biological point of view.

But other lords, equally influential, asserted that the old man was a prophet of evil and deserving of banishment. They argued that Neina was the only proper home of the Neinian race. They declared that the defense of the satellite was the only program that loyal lords could countenance.

The noise of the argument rose from subdued murmurs to a buzzing of voices. The sounds increased to angry sentences and shouting so loud that it drowned out the steady clangor of the warning bell. Old Allus, despairing of ever reaching a decision in this fashion, rose once more on the dais and commanded the silence and attention of the lords.

"My people," he called out to them, "I have ruled Neina for a long time. No man has loved her more than I, yet when our friend from Earth speaks to us I know he speaks the truth. It is my counsel, therefore, that we accept his invitation to go to Tellus.

"Nevertheless it would be folly to transport our people thither without first preparing a place. Let us with all haste dispatch this Tellurian scientist and his pre-

vious apparatus, with a sufficient crew, to earth, there to set up the machine and begin to build for our coming. The rest of us will remain here to meet the onslaught of the Pleidans. Our armies will go to the satellite's defense; we will attempt to keep our freedom until everything is ready for our departure.

"This is my advice. What is your will?"

With one accord the leaders cast their votes in favor of this plan, and acclaimed old Allus as the wisest among them.

"Then there is no time to lose," he shouted. "Arm, the Pleidans are coming!"

CHAPTER IV.

Arm! Arm!

HIGH over the greatest of the military space-ship hangars of Neina, in the topmost launching place, a little army of men worked like mad upon a huge, gleaming projectile; the cartridge that was to carry the hopes of all Neina on this long, dangerous and uncertain journey through space. The old man from Tellus was there, with old Allus and the girl Nina, superintending the preparations for the flight.

Far below them they heard the shouting of the people in the streets, the clamorous people of Neina, who did not yet know the doom that was hanging over them. In this curious world, at once the most advanced in science and the least advanced in social arts in the system of Jupiter, news travelled slowly. There was no public television; no close communion of the people.

Ruled by an oligarchy, divided by clan-loyalties, the Neinians felt little need for the hasty dissemination of information about their nation or themselves. They knew only that Allus Marce and his men had returned from Pleida and that a conference had been held with the Lords of Neina. The crowds were now gathering to catch a glimpse of the young hero as he passed through the streets from the council chamber to his own palace.

The Neinians believed that peace had been concluded, that Allus Marce was returning triumphant from the signing of a

*A little over a week in Tellurian time.

pact that made them free. They observed him standing like a young god in the metallic vehicle that carried him through the glittering rays of Ancienda. On either side the spectators roared out their admiration for this winged creature, tall and manly, who had been in such haste to bring the good news to Neina that he had courageously plunged his space-flier into the sea to save a few hours of precious time.

But as for Allus Marce, he was troubled at this display. He groaned inwardly to remember that he had failed in the mission these folk believed had been a success. He felt himself unworthy of their applause; he was ashamed, yet proud, too, that his people should love him so.

It had been left to the lords of Neina, in their mobilization, to tell the populace what the situation was. Allus Marce, on his departure from the council chamber, had not anticipated the welcome now being showered upon him.

Seeking advice he had turned to the old lieutenant who rode beside him. "Saldu," he asked, "shall I tell them?"

"Do not," the other counselled. "Alas, they will learn the truth soon enough, and by that time our plans for mobilization will be well under way. To tell them now might lead to disaster. Smile, Allus Marce, as if all things were as they should be. We cannot chance letting the people know how uncertain their leaders are as to the outcome of this day!"

So Marce smiled and bowed and acted the gracious son of the head of the house of Allus. But as they progressed through the crowded streets some subtle sixth sense warned the people that this was no heroic procession as they had supposed. Allus Marce could scarcely restrain his glances toward the black skies. There, he knew, though they were still too far away to be visible, the hosts of Pleida were already a-wing. The demonstrations grew less noisy. There was a rustling and uneasiness in the throngs that lined the way.

A whisper had got out that the armies of Neina were mobilizing again. What sort of peace and triumph was this? Against

whom would the space-cars of the satellite fly, except those of the mighty Pleida?

The whisperings ran like wildfire through the crowds. So it was to be war again! The winning campaign that had been fought by Neina and her three allies against the barbarities of Pleida had gone for nothing! So that was what Allus Marce had learned on his voyage to the mother planet that had sent him back in such heroic haste!

The people grew silent, watchful. Allus Marce smiled and bowed, but there was no response.

"They know," he murmured to his lieutenant, Saldu. "They know before we tell them that the peace is not concluded, that it is to be war again."

The lieutenant nodded. "It was not a secret that could have been kept," he replied quietly.

THE procession drew on through the sullen streets until it came to the great plaza before the palace of Allus—the plaza that had known so many historic happenings since it was built by the first Allus in the misty antiquity of the satellite's past. Here had tramped victorious armies, home from battles against planetary and interplanetary foes. Here had once alighted a graceful, winged space-car from the far-off Earth, bearing men like Neinians, except that they had no wings. Here was the scene of many a triumph and tragedy, marking the epochs of Neina's history.

The glistening car bearing Allus Marce rolled into the open space. It was clear that the whisperings of renewed war, of discontent and uneasiness had preceded it. Countless thousands of Neinian citizens were assembled there, shivering and silent in the chill wind that swept across the plaza. Allus Marce observed them with gloomy thoughts, remembering the prophecy of the old man from Tellus. For within his own memory tropical plants had bloomed and unfolded upon this square, where now only the hardy sub-polar shrubs could be made to grow.

The people of Neina were not, however, speculating on these things. They were intently watching Allus Marce as his proces-

sion made its stately way across the square. The young commander surveyed them, heard an alarming, ominous thunder in their murmurings. What was the meaning of Marce's strange return, they asked themselves. What could be the significance of his silence and reticence?

At the palace's wall, where the twin entrance-tubes ran down beneath to afford passage for the surface-cars, Allus Marce could restrain himself no longer. He remembered the warning of silence his father had imposed upon him. He glanced uneasily toward the distant launching-level where, out of sight, he knew that the mechanics and crew were busier than ever with their work upon the expedition to Tellus. He shrugged; cast everything to the winds. These people he loved; they were his people. He had risked everything on more than one occasion to save them; they had a right to know the dangers that threatened.

He stepped suddenly to the back of the car. A roar arose as the crowd pressed closer to hear his words.

"People of Neina!" he shouted. "Arm! Arm for the most bitter war that you have ever known. Our allies have deserted us, bought by promises and false security, and Neina has been betrayed. Already the arms of Pleida are flying toward us through the night of space. We must meet them at the breaking line, where the pull of Pleida and Neina balance. There, and there alone, will we be superior to them, for our craft, though outnumbered, are more maneuverable.

"Arm! Arm, people of Neina, and we shall yet win that freedom for which we have sacrificed so much!"

Again, through the magic confidence of his speech, Allus Marce had become Neina's hero. It was a struggle for the guards to clear a path for him to the entrance of the palace. The Neinians shouted for him, pushed in to get a glimpse of him, swore unending allegiance in voices cracked by emotion.

"Arm! Arm."

The cry was taken up like a chorus, and all the people of Neina, when their leader had disappeared and the heavy doors of the

palace had closed after him, hastened away to obey. So occupied were they that few noticed the launching of a mighty craft from the highest level of the space-car storage place, and none thought of its possible significance as it struck out bravely into the hostile void, seeking ultimately to land upon old Tellus, the arid Earth.

AN old man, the venerable head of the house of Allus, and a young girl, Nina, only remaining daughter of Earth, moved slowly toward the elevator that would carry them to the street level of the space-car house.

"My child," old Allus said to her, "you had an opportunity to return once more to the planet of your birth, to live there safely and in peace to await our coming. Yet at the last moment, so perverse is your will—the will of a woman—you refused and stood firmly upon your right to remain here, choosing the dangers of tragic Neina for the peace and quiet of the unpeopled Earth."

"Yes—" admitted Nina. "I chose to stay—"

"But once the space car bearing your father and two hundred of my ablest scientists had started on their journey, you burst into such copious tears that I have only now succeeded in staunching them." Old Allus shook his head. "It is a woman's way—"

Nina broke in upon his observations. "Nothing of the sort."

"Then why—?" he asked.

Nina considered briefly. "I have two loyalties," she explained impetuously, "which permit me to be happy neither here nor there, so long as on Tellus lies my home, but here remains my love."

Old Allus was silent for a moment as they stepped into the lift. "So you remained," he asked, "to be near Allus Marce? You love him that much?"

She looked at the patriarch quickly. "I'm—afraid I do," she answered. "Sometimes I hate him, but I love him, too."

"Allus Marce—though he is my son—is a spoilt fellow," the old man exclaimed fervently. "He has more power than becomes his years. Even today, despite poor Neina's

dangers and despairs, he has stirred up the people in order to satisfy his vanity. Had he left things alone we would have been mobilized in an orderly and effective fashion before the fall of night. We would have been in position to fall upon the attackers swiftly, secretly.

"But now the people are mad with false patriotism. The Lords no longer control them. They want to follow Allus Marce like a rabble, making a great display, but wasting their power and losing all chance for strategy."

"Nevertheless," declared Nina, "I believe Allus Marce can win. I have remained behind to help him!"

"You help him? How?"

Nina smiled quietly. "Perhaps I could lead a ship into the fight," she suggested. "Perhaps I might suggest some new strategy, or direct the use of a weapon."

"You mean—?"

"I mean that I am too wise in the ways of men with women to thrust myself upon Allus Marce, but if he will listen to me—"

The old man looked into her eyes. "Then by heaven and earth he shall listen to you; he must!"

"Perhaps," she cried cryptically.

CHAPTER V

The Flight to Tellus

NEINA was shrinking behind them like a lump of ice, melting and running into nothingness in the fierce heat of the sun. They had long since passed the sphere of the satellite's strong influence; now they were at the cruel mercy of the sun, dependent upon the trueness of their course, the accuracy of their calculations, the steadiness of their machine and its fuels. Alone in uncharted space, guiding their route by those unbelievably distant buoys that glowed dimly in all directions, clutched in the hollow cold of space, they were nevertheless at peace among themselves, resigned to whatever fate was in store for them.

It was around the old man from Tellus, the aged prophet and scientist who in its extremity had offered haven for their race,

that the Neinian scientists gathered while the engineers of the craft, Neina's best, guided the frail speck through the infinity of the heavens.

He was explaining to them minutely what he intended to do upon Tellus, going over the ground carefully in the empty hours of the journey, so that there might be no time lost unnecessarily when the time came to act.

Despite its unbelievable smallness in relation to the bodies of the firmament and the forces against which it was pitted, the rocket that bore the expedition seemed huge to the men within it. Part-way back, in chambers surrounded by huge tanks containing the precious concentrated fuel that drove them onward, they congregated in a laboratory the like of which had never been seen before on any craft or earth. Mechanics were still at work on it, under the eye of the old man from Tellus, fitting it up for its part in this unparalleled migration of a sovereign people from satellite to planet.

Folded in sections against its walls were parts of a contrivance resembling a huge basin, perhaps hundreds of yards in diameter when assembled. In furnace-rooms beneath the laboratory other parts for this structure were still in preparation. In the storage rooms were many other pieces of complex machinery; huge thermo-couples designed to transform the heat of the sun directly into electric power; transmission-generators for changing power into *di-thurnian waves*, by which means the last generations of the Tellurians and after them the Neinians had learned to transmit energy great distances directly through space or atmosphere; gyroscopic controls, heavy fly-wheels, automatic stabilizers.

In the furnace-room and shop there were also being prepared receiving reflectors for the di-thurnian power, designed to be fastened to the earth or to the strange machine the old man from Tellus had built secretly in his own laboratory on Neina. This had been carefully packed into the space-flyer before its departure and barred from the sight of everyone save the old man who had invented it.

"You must understand," the Tellurian scientist explained to his followers from Neina, "what conditions we expect to face upon the Earth. Many generations ago, when all other sources of power had been used up or greatly reduced, a Tellurian scientist discovered an almost magical alloy that had the power, when hot, of affecting the dissolution of water in such a way that great amounts of energy were released. This fellow and his descendants contrived a kind of engine to take advantage of this phenomenon, not knowing, or perhaps not caring, that they were thereby providing a source of power that would ultimately wipe out mankind and all living things.

"For this was the curious and special property of that magical alloy: in its presence the hydrogen in water somehow underwent a nuclear change, fourteen atoms of hydrogen combining to form one atom of nitrogen. The power derived by this process appeared in the form of heat and radiation, an expression of what scientists have called the "mass defect".* The gases given off by the explosion that followed consisted of hot nitrogen and oxygen, and the water, once thus destroyed, could never be replaced because one of its vital elements, hydrogen, no longer existed as such.

"A wise use of this energy would never have exhausted our plentiful seas, but humankind was so constituted that plenty led to extravagance, and extravagance to wilful waste, and waste, in its turn, to disaster and want.

"Wars broke out among the races of the planet. And then an inventor, with diabolical cleverness, succeeded in preparing the disintegrating alloy in powder form, so that it might be thrown directly into the seas and reservoirs held by an enemy, destroying that enemy by cutting off his supply of power.

"THE result was annihilation at once for great numbers of men. More than half the water of the earth disappeared in a few months. The warfare that had rocked the world came to an end in the horror of thirst and privation. When stock was taken of the remaining water of the globe, the winning race congratulated itself that there was still enough to last indefinitely. But its engineers had reckoned without the mysterious and sometimes malignant action of nature. When provoked she can sometimes retaliate with terrible and swift weapons.

"The powdered alloy used with such telling effect against the enemy was cast by the spuming waters into the air, where it floated from place to place on the winds in the form of impalpable dust. It fell into the seas, lakes, reservoirs of the remainder of the world. It went with insidious persistence into every pool on all the globe, and at last mankind died as a result of its own ruthlessness. The earth became a dry and crystal-covered clod, without life of any kind.

"It is such an earth, men of Neina, we must rehabilitate—a dry earth, with an atmosphere of oxygen almost too strong for man's tender lungs, and weighed down with the gas, nitrogen. Somehow from these two elements we must restore water to that earth, for the people of Neina!"

The scientists of the satellite stared at him during these recitals in awe, daring not to ask that terrible question that each had on his tongue. They knew that when the time came the Tellurian would reveal everything to them. They were content with his gradual unfolding of the plan as the hours and days of the frightful journey rolled past.

* * *

THE hot sun turned his single burning eye on them; they felt his heat as, speeding through space, they approached him in their quest of that tiny planet occupying the third orbit of the solar system.

In the space-rocket there was no night or day. Time passed in a steady stream; the occupants felt neither motion nor the oppression of weight. Though their speed was terrific measured by terrestrial stand-

*Einstein had theoretically demonstrated in the 20th Century that if a heavy element were built up from a lighter one, energy would be given off in proportion to the mass difference of the total atomic weights involved. Thus 14 atoms of hydrogen weigh 14.112 (1.008 each), while an atom of nitrogen weighs only 14.008, the difference, or mass defect, being .104, or more than a tenth of the energy of a single hydrogen atom. Millikan believes that some such process accounts for the generation of cosmic rays.

ards, to them it seemed that they were poised motionless amid the vastness of space, as if their metallic car were as immobile as a projectile painted upon canvas.

Some were alarmed, complaining that they had already been too long on the way. Some pointed to the growing size of the sun's disk, and spoke with terror of the dangers that lay in that direction, recalling that once in a past age a rocket bearing Tellurians on their return journey from Neina had slipped unknowing from the proper way. They recalled how it had been drawn irresistibly toward the brilliant orb that was the mother of the planets, its occupants perishing miserably and in terror as the heat grew about them and the walls of their rocket-car glowed with the electronic bombardment of the sun's radiations.

But the old man from Tellus, as the time passed, grew in energy as his followers grew in fear. He drove them mercilessly to their tasks about the ship. In the hot workshop the engineers were bringing to an end the fashioning of mysterious engines he had devised. In the laboratory physicists and chemists bent endlessly over tests and experiments he had directed, forgetting their fears and uneasiness in the wonders of the new worlds the old man had opened to them in the hidden things of nature.

The lectures in the ship's crowded auditoriums continued. Sometimes they dealt with the lore of the skies; bits of astronomy that was the distilled wisdom of generations of Tellurian observers. Other times he explained little known laws of atoms, showing how cunningly the universe was put together; electron and nucleus, whirling orbits too small for any microscope to see, multiples of atoms building upward into molecules, the miracles of chemical composition by which we live and all things exist; the solid planets, the liquid, glowing sun, the ringed orbits of the solar worlds, the circling paths of universes in the solemn, mysterious processions of the stars and nebulae.

"It is because I love all nature and hence all life that I have dared to make this attempt to restore water to the Earth," he ex-

plained. "Pleida teeming with life—even the life that to us seems loathsome, cruel, insensate—is better than a planet without life of any kind. Behind the universe, examine it as you will, there must exist some mighty plan, and if that plan is the ever-unfolding influence of sentient life, then we must sacrifice everything to further it.

"In the days of the ancient peoples of Earth there were many who delved into nature's secrets, revealing many things that we have since been able to turn to our use. In olden times there was a scientist whose discoveries I have come upon in my wide reading of Tellurian lore. He passed the quick alpha rays of radium through nitrogen gas, and by photography in a cloud chamber demonstrated that the ionized particles that make up these rays, upon colliding with occasional atoms of nitrogen, were able under certain conditions to knock loose protons.

"This man* was unable to demonstrate whether or not these protons would later pick up electrons and so become true atoms of hydrogen. But I, in my experiments on Neina, have demonstrated that they can. Those experiments point the way to the solution of our problem. If, under terrestrial conditions, we can bombard atoms of nitrogen and produce hydrogen, the manufacture of water in sufficient quantity will only follow upon the devising of proper methods and large enough plants."

"Are we to understand," asked one of the scientists, "that you have already performed this experiment and found it possible?"

The old man nodded. "In the laboratory," he replied.

"But," queried another, "you have told us that in building up the hydrogen of water into nitrogen through your disintegrating alloy, great energy was released. Is it not necessary, in reversing the process, to put back into it exactly as much energy as earlier went out?"

"True—true. But that is a problem I have also thought about. You shall see in good time how we may deal with that."

*Rutherford.

Earth Draws Near

JUPITER had dwindled in the sky to the size of a bright, glowing star, and her satellites were now invisible to the unaided eye. No longer was the system behind them. All objects in the icy void had seemed to change with the passing hours. Now there was no up or down or back or front. The rushing gases of the space-ship's multiple exhaust appeared to have no effect. There was only the faint constant whisperings of the rocket tube explosions as they echoed inside the car, transmitted there by the metal of the hull.

Far to their left they described a yellow star, burning steadily in the inky blackness of space.

"That star is earth," the old Tellurian said. "We will cross her orbit, meeting her at a long angle to make our landing easier—if the navigators have calculated our course properly."

"And if they have not?"

"We will be drawn into the sun. There can be no second try."

The navigators and engineers, standing hour after hour at their instruments, checked and rechecked the course, compressed their lips grimly. They measured the rocket's imperceptible speed and finding it too great, damped off the exhaust. Soon they would know how skillful they had been. To strike the earth they must have aimed neither too high nor too low, to far either to the right or the left. They must have traveled only just so fast, neither slower nor swifter. From Neina the planet Tellus had been but a tiny, yellow, moving speck. At such a target had they launched the metal cartridge upon whose safe arrival depended so many lives.

The laboratory of the space-car was now crowded with finished apparatus. There was no longer room for the long rambling talks of the scientist. Nevertheless he addressed the Neinians; speaking to them sometimes singly, sometimes in pairs, in small groups, explaining to each his part in the great interplanetary drama for which the stage was being set.

"Let every man be familiar with the workings of his space-suit," he admonished them.

"They are not new to you, but I have directed certain changes to be incorporated that give greater mobility and longer time away from the compression chamber. There is now a better type of oxygen generator in each. The metal gauntlets are provided with improved heaters, so that the occupant may work for several hours without losing the use of his hands. When the time comes every man must execute his own particular task with speed and efficiency."

They saw, after more time had elapsed, that Tellus was indeed drawing near. Now they could distinguish the bright point of light that marked the position of Luna, Earth's single moon.

The old Tellurian, still driving his men in the laboratory and workshop, stalked to and fro like a slave-master, afraid that all would not be ready by the time the glistening rocket crossed the path of the approaching planet.

"We shall have no time to lose," he declared as he went through the shop, examining half-finished parts, laying out new work. "Are the mirrors completed?"

The mechanics nodded.

"And the thermocouples?"

"Yes."

"It is a pity we could not have had time to manufacture the contrivance complete on Neina, so we could have tried it out. But as it is—"

He shook his head savagely. "The Pleidians couldn't wait. Well, we shall beat them anyway!" Then, in a moment: "How about the generators? Are they ready?"

"Nearly. There are two more to be wired and tested."

"Speed them up."

Gone were the fears of the Neinian scientists that they had lost their way. Now they could see the target plainly with unaided eyes. It was beginning to loom up at them, a most brilliant disc in a dark and forbidding universe. Vaguely they could discern the spots which had once been old Tellus' continents—they were dark patches set royally among glistening areas of white.

The old man found many of them looking wonderingly upon these revelations from the space-car's windows, neglecting their work.

But when he saw the object of their interest he became suddenly indulgent.

"There is the planet we must bring back to life," he murmured. "If my science cannot do it we are lost—and so are the people of Neina!"

Gently he admonished them, and the rocket hummed with the sounds of industry that drowned even the throb of her pumps and the whisper of the rockets that propelled and guide her. Aboard the craft, as the bright face of Earth drew near, there was a note of gaiety. The scientists, technicians and mechanics worked like men who perform tasks they thoroughly enjoyed. The navigators began to perceive that their aim had been true. They had neither overshot nor undershot the mark. There it was, beckoning to them out of silent space.

The time had come when even the old Tellurian appeared more certain of himself and the outcome of the voyage. But he did not relax his vigilance. He was constantly with the navigators in their calculations, and dispensed his orders with the same rigid manner.

"Tonight," he said (for matters aboard the space-flier had been governed precisely as if there had indeed been day and night), "every man must retire early and rest well. Tomorrow we shall come within the gravitational influence of the Earth—and after that, as you know well, there will be work to do."

CHAPTER VI

Nina's Strategy

S WIFTLY, silently, speeding through the blackness of the void that separated Neina from her planet, the forces of Pleida were coming. Ignorant of the single rocket-ship that had sped away from their quarry in search of the planet Earth, and scornful of what this small world could do even if they had known, the rocket-ships sped straight toward their goal, resolved to leave no free man on the satellite.

Heading the invading expedition was Salvarius Carde, mightiest of the Pleidan nobles, the favorite of Dolmician. He stood

upon the bridge of his flagship and surveyed the Neinan preparations through the telescopes with which his vessels all were equipped.

"They have been warned of our coming," he shouted gleefully to Guttar, his second in command. "They are scurrying around like ants, but what can they do against us? We are invincible!"

He turned from his contemplation of the unhappy satellite to survey the majestic force he was leading to its conquest. He beheld eight hundred glistening rocket-ships of the finest war design, flying in a great spreading wedge, four hundred on either side and a trifle behind his own craft. Behind them rode the Pleidian transports, with the colors of Dolmician etched into their shells, and the nozzles of weapons protruding from their sides.

It was a crushing force, the mightiest ever to fly in one campaign. Salvarius Carde surveyed it with unconcealed pleasure, knowing full well that no effort of the Neinians would ever serve to stand against such a force. Better for them if they failed to attack at all! He would be more disposed to measure out mercy upon them if they made no preliminary show of force. But if they should—!

He laughed as he thought of the puny force of his old enemy, the proud, headstrong Allus Marce.

If Allus Marce should come against him he would make a special point of humbling him. The Pleidian delighted in contemplating the unequal battle; the few battered ships of Neina against these proud cruisers that bore the colors of Dolmician!

* * *

The astronomers of Neina were as cognizant as was Salvarius Carde of the strength of Pleida. Through their instruments they had already counted the approaching craft of the enemy, estimated the weapons they might use, calculated the speed of their flight.

Reports went constantly to Allus Marce, who remained in the huge hangars that shielded his own space-ships, superintending their loading, fueling, arming.

"The fleet of Pleida is now half-way from

the planet to our satellite," the astronomers informed him through the wall television that had been fitted up for his use. "They are coming at such speed as to bring them upon us within the next twenty *senuras*."

"How far are they from the cancelling point, where Neina measures her strength with Pleida and finds it equal?"

"Many *deismas* yet, commander, but approaching it at terrific speed."

Allus Marce turned quickly away. "Let them come," he commented, "for at that point the peoples of Neina will also contest with the forces of Pleida, and Dolmician's men will find them more than their equals!"

Impulsively he passed from space-fighter to space-fighter, examining the equipment, the crews and their weapons. As he approached they sprang to attention, proud of their commander. It was not until he had come to the last that he found a surprise waiting for him. It was Nina, uniformed like the commander of a space-ship of war.

He paused, staring at her in amazement.

"Nina," he said, "I thought you were—with your father. I thought, after what happened at the conference, that you had deserted us."

She smiled at him. "On the contrary, I have remained to help you defend Neina."

"Help us?" She saw immediately that she had wounded his pride by so blunt a statement, for Allus Marce was not a man to accept help from any source. "I am glad that you remained behind to be with us until your father returns," he went on quickly. "But if you mean"—he gestured toward her military garb—"that you wish to take part in the actual battle—that cannot be. We have no women in the armies of the Neinians."

SHE flushed, but stood firm. "Allus Marce," she exclaimed, "I would never have dared to come to you at such a time had I not been sure that Neina is in grave danger. I had your father's permission to don this uniform and to address you here. I—"

He stopped her with an upraised hand commanding silence.

"I can have no woman in my army, Nina. I want to be gentle with you, but this is a serious hour and there is no time for argument. In a few minutes we must take off toward Pleida, to intercept our enemies before they reach the satellite."

He finished with a tone like a military command and turned on his heel. She cried out after him, but he would not listen. "I do not insist that you include me," she called, "but you must listen to my plan. I have strategy that may win where every other way will surely lose!"

He hesitated at that. She caught up with him.

"I also have a plan," he asserted. "We shall proceed directly to the fight, and there shall engage the enemy as Neinian ships have done for generations. We shall be victorious. With the weapons your father has devised for us we will riddle them."

"But Marce, they are as numerous as leaves in the trees. Eight hundred fighting ships, and as many transports, while you have only a few over a hundred, and they are old, despite their new weapons. And remember, Allus Marce, how space-ships fight. At terrific speeds you will meet head-on. Your only opportunity for riddling them, as you say, is in that instant of time when the opposing fleets flash past each other. Once past you must circle. Swift, heavy space-ships are not easily manueverable. What if they should choose not to turn and meet your second thrust? You would not be able to catch them before they landed on the satellite."

"But they will turn. Since time out of mind space-ship fleets have fought their battles by circling between the worlds."

"This is no ordinary war. Pleida is out for swift and certain conquest. Why else would she send many transports filled with troops and guards? She will try to land them at her earliest opportunity, regardless of the conventions of your age-old space-fighting. They will merely pass you, take what losses are necessary, and speed on to the defenseless satellite. Before you can turn your heavy fleet and come to our rescue, the whole Pleidan armada will have landed and taken your capital."

Allus Marce shrugged. "I cannot believe it," he commented. "In any case, what better plan have you?"

"This: they will be suspicious of ambush if you do not attack as you have suggested, and so will land cautiously at a distance from Ancienda and march into the city thereafter by land, overwhelming us with poisonous gases as they come. But if they think your fleet is out they will attempt to alight boldly on the city's landing space, as many of them as can find room, in order to complete the conquest quickly before the fleet can return and aid in the defense.

"I propose that we do this: Let me lead the fleet against the Pleidan armada. Your people love me; the fighters will follow and do as I tell them. We will take only skeleton crews—just enough men in each ship to maneuver and handle the weapons. Meanwhile you, with your greater skill and knowledge, will take the main body of the fighters and plant them in strategic positions around the common landing field in Ancienda.

"Fulfilling your campaign, I shall lead your space fleet through the hosts of the attackers, turn, and pretend to try desperately to overtake them. They will not know that it is I leading the fleet, and that you are in ambush against them on the satellite, and they will land directly as I foretold.

"When they have opened their ships and begun to disembark you will suddenly give the command and blaze away at them with every weapon in your power, destroying their ships or crippling them, killing many of the Pleidians, and making the others prisoners. By the time I have returned with the space fleet you will have won the day, made Neina safe at least for the time being, and have provided the people in addition with a number of ships that will be of great use when the time comes to migrate to Tellus."

She looked eagerly into Allus Marce's face, watching for his reaction to this suggested defense. He remained silent.

"What do you think of it?" she asked. "Isn't it better?"

He shook his head impulsively. "My

place," he said without answering the question, "is at the head of my fleet. I cannot stoop to lay traps like some common gardener whose enemy is a mouse."

"But Allus Marce—!"

For the second time he turned abruptly away from her. "I cannot consider it," he declared.

She seized hold of him, restraining him by force as he made to move off again. "This is no time of think of personal pride, of ancient customs, or of position," she pleaded. "Neina has her back against the wall. We must defend her until my father brings us word of a better place to live. If you persist in your attack in space Ancienda will surely fall and the people of the satellite will be enslaved. Your enemy, Salvarius Carde, will live in the chambers that your father and his fathers before him have hallowed with their memories. You and all your family will go down into the mines, their chance for life and freedom forever lost!"

"I will attack them in space," said Allus Marce, coldly.

"Then you will lose Neina because of your false pride. Your people will suffer extinction because they have placed too much trust in one who was not great enough to think first of their welfare!"

As she spoke Nina stood firmly before him, her eyes flashing, anger in her face. Allus Marce replied to her in kind, his lips white and thin:

"As for you—you may join the old women with your wailing. And when I have won this victory I shall return you to your barren and deserted Tellus, and let you die of thirst there with your father. Both of you, having cause enough to thank Neina for your very lives, have refused to help her in her severest extremity, when one word from either would have wiped out her ancient enemy and restored peace and safety to all the satellites!"

NINA stood in the streets with the cheering throngs as they watched the great war ships of Allus Marce launch themselves into the sky, but Nina did not cheer. She shared none of the faith the Neinians placed

in those projectiles of glistening metal and the powerful guns that armed them.

In squads of ten they went roaring from the launching places. Almost unconsciously she counted—one hundred, a hundred ten, a hundred twenty—fewer than a hundred fifty in all, to face eight hundred! What a proud display they made in the bright light of the distant sun, and what a futile one!

Nina hardly waited to see them out of sight. She hastened to the palace, where old Allus greeted her.

"As I feared, he would not listen," he commented.

Nina nodded silently. "He has gone to meet the armada of Pleida," she declared. "There was no stopping him."

"So I perceive."

"But it was not to report this self-evident fact that I came to you again. I want authority to arm the people, to organize them, to command the landing places of Ancienda and the other cities. We must do what we can at once, in case my guess was right, and Salvarius Carde chooses to come on and land rather than to stay and fight."

The old man appeared to consider. "Can you handle this?"

"With your aid."

Old Allus' eyes clouded. "I wish that you were my son," he whispered.

"Then you give me permission to try it?"

"Yes—but do you realize that you will have no regular fighting men? The pick of the regiments of Neina are space-fighters, and he has taken them with him. For you there is left only untrained troops—and the mob, if you can control them."

"And weapons?"

"My child—there are almost none. For generations Neina has done her fighting in space. We have forgotten the use of land arms, and no recent ones have been made. I will lead you to the armories. If you find anything there you can make use of—you are welcome."

Nina stared in amazement at the old man, head of Neina's proudest house. No arms fit for pitched battles on the satellite?

"But surely you have explosives?"

The old man nodded hesitantly. "I think so," he replied.

"Then we can mine the landing field, at least. And perhaps we can adapt some of my father's weapons for use upon land. We have only a little time—"

"I will give the order for secondary mobilization. Meanwhile you may consider yourself commander of the land armies of Neina—land armies that hardly exist, that are untrained, that have no suitable weapons. If you can save Neina with them you shall be rewarded—whatever you may ask!"

Nina did not reply directly to old Allus. Instead she went to the windows and threw them open, looking out on the crowded plaza.

CHAPTER VII

Battle at Last!

THE doomed satellite Neina (which the men of Earth before their extinction had called Ganymede) had hardly completed her revolution around the planet (which occupied a period of a little over seven Tellurian days), when the huge space-fleet of Pleida met the speeding forces of the defenders. The little earth, which always keeps the same face toward the huge planet it continually circles, was just coming out of the shadow into the bright light of the sun when the invading force simultaneously spied its lighted continents and the gleaming metal space-cars of Allus Marce.

All the planet-satellite system of Pleida—a system of ten worlds of which five were inhabited—was watching that meeting in space, knowing that upon the success of Neina in this furious struggle for freedom depended more than the inhabitants of the other satellites would have liked to admit. Many by now were feeling a little ashamed of their desertion of plucky Neina in her extremity, yet it was too late to come to her rescue, even had they had the power.

Dolmician had wasted no time in consolidating his grip upon them. Already his promises of clemency and mercy had been broken; the peoples of the satellites Helva,

Quena and Luana* were in a few short hours reduced to slavery and poverty, serving the will of the great emperor in the dark, deathly mines both on the planets and the satellites.

Astronomers on Helva were in position to see the space battle as from an observer's seat. Eagerly training their telescopes upon the meeting place they waited with little doubt as to the outcome, perceiving the immense force of Salvarius Carde, the puny squadron led by Allus Marce.

"He will surely lose," they prophesied. "Despite the superiority of their weapons, the Neinians can never battle successfully with so many. The whole fleet of the defenders will be wiped out."

No less anxiously, and with the greatest foreboding, astronomers of Neina also watched and waited for the clash. Into the high observation room where his father and the Tellurians had once waited for Allus Marce during his returning from Pleida, old Allus again made his way, accompanied by the best scientists remaining on the satellite.

"Have you seen Nina?" he asked them anxiously.

One shook his head. "Not since she sought from me the formula for *trabenzine*, the most powerful of our explosives."

"You gave her the formula?"

"Sire—it would be too dangerous to trust such a secret in the hands of a woman. She pleaded, saying that you had given her authority, but this I could not believe, so I refused."

"You are a fool!" Old Allus' anger suddenly mounted to his face; his eyes flamed. "Throughout my years I have heard it said that women are weak, unfit for authority. But today I say to you—if the fate of Neina were wholly in the hands of Nina we should be saved. You have denied her the only weapon she had to guard us with!" The chemist and the others looked at him in amazement, but he offered no explanation. Instead he grasped the offending fellow by the arm and pushed him violently, for so old a man, toward the lift that would bear him

toward the street. "Go find her now!" he roared. "Make what amends you can, and give her the formula!"

A deep silence settled on the remaining scientists as assistants wheeled the great telescope through its arc until the speeding fleet of Pleida came into view.

"We cannot stand against them," murmured old Allus, quieter suddenly. "Marce will be swept away like chaff, and all his space-fleet with him."

The others gazed at the opposing forces, as they moved closer together across the seemingly tiny gap that separated them in the icy space between two worlds.

They approached, with what at that distance seemed a crawling pace, but which actually was faster than the fastest speed ever before attained in interplanetary regions. Invader and defender alike leaped eagerly into the battle; Allus Marce leading his armada gallantly, straight for the space-car driven by Salvarius Carde and the center of the oncoming horde.

The Pleidan leader, sweeping the defenders with his glass, spied out the leading craft and inwardly rejoiced when he perceived that it was the flagship of the scion of the house of Allus, his special enemy. "There is the man who betrayed me when he was a member of my expedition to Tellus," he shouted, his heavy jowls quivering with pleasure. "Now we will turn his flyer inside out, and spill him into space for it. Let me give orders to the fleet!"

A lieutenant depressed a switch. Instantly communication waves sprang out from the Pleidan flagship to all the others, while the hoarse, croaking voice of Salvarius Carde crackled in eight hundred receivers: "Let no ship veer for an instant from its course until we have let the Neinians pass us and have cut them off from their own earth. Then two hundred of the fleet shall turn and fight with them while the others, including the transports, go directly to the Neinian capital and land there on the public landing ground.

"We will capture the satellite while a portion of our fleet remain out here to grind this upstart Allus Marce to dust!"

*Known once to Tellurians as Io, Europa and Callisto.

THE leader of the Neinian fleet was likewise aware of his enemy's presence in the opposing armada. He saw the colors of Dolmician upon the foremost ship, and beside them the insignia betokening Salvarius Carde's rank.

Now that he could see with his own eyes the numbers of the enemy, his courage had begun to falter. For a moment he debated whether to turn back and belatedly follow Nina's suggestion, attempting to fight it out with the Pleidians on the ground. But he remembered too clearly her sharp words; his pride would never let him go back now. Besides, he saw that it was already too late. Travelling at their furious speed, the gap between the fleets was already closing. It would take a thousand miles to turn, and less than half that much lay in the open space before the oncoming ships of Salvarius Carde.

Grimly Allus Marce ordered his ships into fighting line, his own ahead, the others displayed on either side in a series of echelon formations which had been found best for attacking another fleet head-on. The fighting would have to be swift; in the fraction of a second in which ships would be actually in the act of passing the thunderous broadsides of steel-piercing projectiles would have to be fired. One shot from each gun—there would be no time for more until the fleet had wheeled and swung into the circling formation that permitted extended battle in space.

The gunners took their places. "Remember, the most powerful ally we have is the emptiness of space," Allus Marce admonished them. "If you can make the slightest break in their hulls our ally will enter and devour them." It was a figure of speech that always pleased the men; it made it seem that all nature was on their side in a battle that was obviously unequal. It was a little speech, Allus Marce remembered suddenly, that had been taught him by the old man from Tellus.

The heavy generators were droning their deadly song, setting up the repellent wave that the scientist from Tellus had invented to afford partial protection for the hulls of Neina's fighting ships. Suddenly Allus

Marce, as if to signal his defiance to the enemy, ordered the light to be turned on full blast in the huge reflectors that adorned the nose of every craft.

The effect was dazzling, indescribable. At first the pure white beams cut through black space like a hundred sharp knives, weaving this way and that as if to slice a path for the swift cars that bore them. But presently the lights began to change, turning faintly green as they increased in intensity.

Salvarius Carde, from his bridge, had observed them. From experience he knew what to expect from this other invention of the old man rescued from Tellus. "Avoid those rays," he commanded. "You can do it by swerving sharply to the side. They cannot swing them rapidly."

IT was at the exact point of the balance between the gravitational force of Neina and Pleida that they met. Telescopes from Neina, trained eagerly on them, beheld the two fleets rush together with unbelievable speed, saw the brilliant flashes of light as the steel-piercing guns let go their charges, saw confusion spread momentarily in the great fleet of Salvarius Carde. But as quickly as they had come together the separated again. Allus Marce's armada whirling past toward Pleida, struggling to turn quickly, but actually describing a great arc in space.

The Neinian astronomers turned their telescopes upon the fleet of Salvarius Carde, expecting to see him also turning. What they saw instead brought groans of dismay and exclamations of astonishment. A few ships had indeed begun to turn back, but not the body of the fleet or the transports. Hardly deflected from their course at its most perilous point by the attack, the Pleidians were coming straight for Neina—defenseless Neina, and all her defenders were swinging futilely through space, struggling to turn and renew the attack against an enemy that had already outraced them for the prize.

Allus Marce counted the results of their first brush with the Pleidians. Eight ships had been split open by the combined effort of the ray and guns, and from them had

spilled the men inside, each bloated and bursting from the pressure of the air inside his body. These ghastly catafalques, surrounded by the bodies of their former occupants which flew along like gnats, following the general gravitational center of the fleet, were still accompanying Salvarius Carde, grim reminders that he had not come off scot free in his invasion of Neina.

But neither had Allus Marce escaped without injury in his defense of it. The Pleidans, having so many ships, had thought nothing of risking a few by using them as battering rams. Eighteen of the defence fleet had been battered by collisions with enemy ships. Five were out of commission as a result, two had been split open from stem to stern, and Marce, too, had in his armada now the same grim reminders of the power of space to enter and devour.

As he led the wide turn that would permit them to swing back to Neina and hasten to her belated defense on land, his space-car flashed through a tiny cloud of bodies of his former followers. It was hard to believe, when he first beheld them, that these things could once have been men. They were more like small, misshapen balloons which had been blown too full and had burst. Now the terrific cold of space had seized upon them, transforming them into satellites of frozen, ghastly flesh which would, if their speed were right, travel forever around Neina like tiny moons.

Allus Marce turned away from this repulsive sight and focussed his attention on the small fleet of ships Salvarius Carde had turned back from the invading flight to engage him in space. He beheld that there were enough of them to occupy him for hours in a futile fight, while the satellite beneath him bowed down to Dolmician. He cursed himself bitterly for his blindness and false pride, for his mistaken belief that because Nina was a woman she must therefore be wrong.

Salvarius Carde was already well into the series of maneuvers that checked the speed of his fleet's descent, and Ancienda was trembling without hope beneath him, waiting for his landing.

CHAPTER VIII

The Invasion of Neina

OLD Allus was in the upper chamber of the launching rooms, where a scant half dozen space-craft in fighting trim remained. Into one of these, with the feverish haste of a panic-stricken old man, he was loading fuel and supplies.

"If there are men on Neina brave enough to face the perils of the illimitable space with me," he cried, "I want a crew located at once, capable of navigating interplanetary routes."

"But my lord—the hordes of Dolmician are upon us. You could never launch your ship—"

"That is a chance I am prepared to take. Get me a crew."

A crew came and was instructed, but on their aged commander they bent eyes of such scorn that even he quailed beneath them.

"For two thousand revolutions of Neina around her mother planet I have ruled this satellite," he exclaimed, "and always I have done it honorably. Will you not believe me now when I declare that I am not running away, but am seeking aid for Neina?" The scientists, navigators, mechanics of his crew made no reply, but stared at him stonily, or went about their work of equipping the craft for old Allus' escape.

Word went through the ancient city that Salvarius Carde had tricked Allus Marce, and that the Pleidans would surely land and sack the place before the space-fleet could return. This word was brought to Nina as she labored with her defenses at the public landing place. A messenger came to her from the observation room where Allus Marce's defeat had been witnessed.

"I have foretold this event," she declared, "but with the aid of the Neinian people will may yet save the satellite and her capital!"

Crowds had already begun to gather in the principal thoroughfares. Among them she went, her hair flying long, her eyes blazing zeal for Neina and fury for the slowness and terror of her people. "I call upon you for help against the enemy," she cried.

"Who will volunteer to attack them when I give the signal?"

"But you are a woman!" someone shouted.

"I am a woman," Nina answered without hesitation, "and if the men of Neina are afraid to follow me let them run and hide. I call upon the women of Neina to take up knives, axes, clubs, staves, goads—anything that may come to hand, and lie behind those bulwarks I have erected on every side of the public landing grounds. Neina can be saved if her people will arouse themselves!"

Her words were like magic. A thousand women, whose centuries of training had taught them to think themselves inferior, suddenly came forward and offered to help her. Elated, she made a new appeal, directing them, exhorting them. Presently the men also began arming themselves. The waiting places behind the hasty barracks began to fill, while the glistening ships of Salvarius Carde, now plainly visible in the thin, blue air, came ever closer, seeming to hover over the city, ready for the landing.

Nina went from breastwork to breastwork, heartening her new recruits, instructing them in the use of the weapons they had succeeded in picking up, admonishing them, reproving them. "I will give the signal," she said. "Do not move or betray your presence until you hear the thunder of the signal I shall give. It will be unmistakable."

As she rounded the last corner, and made to cross the square toward the tower where she had intended to take up observation, another messenger stopped her. He brought his message verbally.

"Old Allus," he declared, "is fleeing for his life, leaving the rest of us to perish at the hands of the Pleidans!"

"You are a fool," she exclaimed, thrusting him aside. "I don't believe it."

"But you must believe it! See—" He pointed toward the topmost launching place, and she saw that there was indeed a fever of activity there. Even as she gazed the last of the crew entered old Allus' ship. The heavy doors clanged shut, were bolted from inside. Fire flew from the huge projectile's rear. It moved; began to rush up the

launching-incline, gained momentum, flashed into launching speed and was gone in a trail of flame. Straight out into nothingness it went, away from Pleida and the other satellites.

"There!" said the messenger, almost triumphantly. "I told you he was going."

Nina, wracked by countless emotions, seized new control of herself. "Say nothing," she commanded hoarsely, "and come with me."

Together they made their way across the square and entered the observation tower, while the first car of the fleet of Salvarius Carde, hastening its descent, came crashing upon the main public landing place, followed by half a hundred transports bearing armed soldiers of Pleida.

NINA, watching, wondered if her rabble of defenders would lose their courage and desert at the frightful spectacle of enemy ships settling upon their own landing ground, or whether—an even worse contingency—they might become so frenzied with hate or fear that they would begin the attack before she gave the order. A hush, heavy with portent, had fallen upon the entire city. Except for the clamor of the arriving enemy ships the satellite would have seemed dead and filled with echoes. Citizens who had not joined the defenders in the barricades had fled to the open country, or were hiding in their homes.

Salvarius Carde peered carefully through the heavy windows of his ship, taking in the situation, frankly puzzled. Where were the people of this cold and disagreeable little world, who had been known for their meekness? Had they all run away?

The disagreeable lack of gravity of the smaller earth, which he had not visited for many years, disturbed him. He felt his insecurity of control over his muscular activities, and wondered for an instant how this might effect his followers. It was clear to him at the moment of landing that something unusual was indicated by the actions of the Neinians; it might be that they had actually, under the tutelage of the Tellurians they were reputed to have brought

among them from a dying distant world, gained new courage to defend themselves.

A lieutenant, following the plan of action laid out during the flight from Pleida, moved to open the space-car's door, a signal for the general debarkation of all the troops brought from the planet. But Salvarius Carde, assailed by doubt, stopped him.

"Wait," he said. "We will give them a little taste of our medicine first, in case they should be planning anything!"

He gave the signal. The fighting ships, drawn toward the outer parts of the field like destroyers protecting the relatively defenseless transports within, suddenly let go a tremendous blast of fire. Like a sheet of devastation it went crackling out on every side, over the top of the hastily constructed breastworks and into the buildings, that lined the area.

The flame ate away stone as if it had been butter; cutting into the metal skeletons beneath. Two buildings, obelisks of mighty proportions, came tumbling down like piles of matchwood, crushing to fearful death thousands of persons who had been crouching, out of sight, behind a battlement on the northern side. The building in which Nina crouched, with the trembling messenger, swayed, began to go. She felt that the end had come when, as suddenly as it had begun, the pouring streams of flame subsided.

Eagerly she looked out again. She was proud at that moment of the new-found courage of the people of Neina. Like rabbits they may have been for generations, but despite the terrific tragedy they had witnessed with their own eyes, despite the hot rain that had passed for searing minutes a few feet over their heads, they had held their ground, had remained concealed.

Now, satisfied, Salvarius Carde had triumphantly ordered the debarkation of his troops. The heavy door of the flagship swung open with a furious clang. A pole rose up above the ship, and on it waved the colors of Dolmician. The heavy transports began to disgorge their occupants, amid the clatter of military movement, the rumble of heavy armament, the blast of horns signaling assembly.

The woman from Tellus, her hands trembling, crept along the sill of the window through which she was watching these preparations to subjugate the satellite. Slowly, while the eyes of the messenger protruded with astonishment and dread, her slim white fingers, made whiter than nature by the excitement under which they acted, sought a small ebony button.

They reached it, hesitated. Nina saw that virtually all of the soldiers had left their transports. The debarkation was complete. In another few minutes a general sacking of the helpless city would begin. The fingers on the button ceased their trembling, grew firm. Suddenly, with great energy, they pressed. The button sank into the wood.

Outside, as if a volcano had suddenly opened up beneath the square, the earth leaped skyward.

Hastily, awkwardly, but with great effect the entire landing field had been mined. Now, upon the detonation, the great empty spaceships of Dolmician and the troops he had sent to subdue a satellite too valuable to ignore and too vigorous to oppress by peaceful means, were caught in the blast and hurled about like ants into whose mounded home a mad bull has plowed his head.

Captured!

NINA hardly waited to note the effect of her coup. Shouting to the messenger to follow, she seized a long sword that she had found somewhere among the half-forgotten museums of Neina, and hastening to the street found herself surrounded by her adopted people.

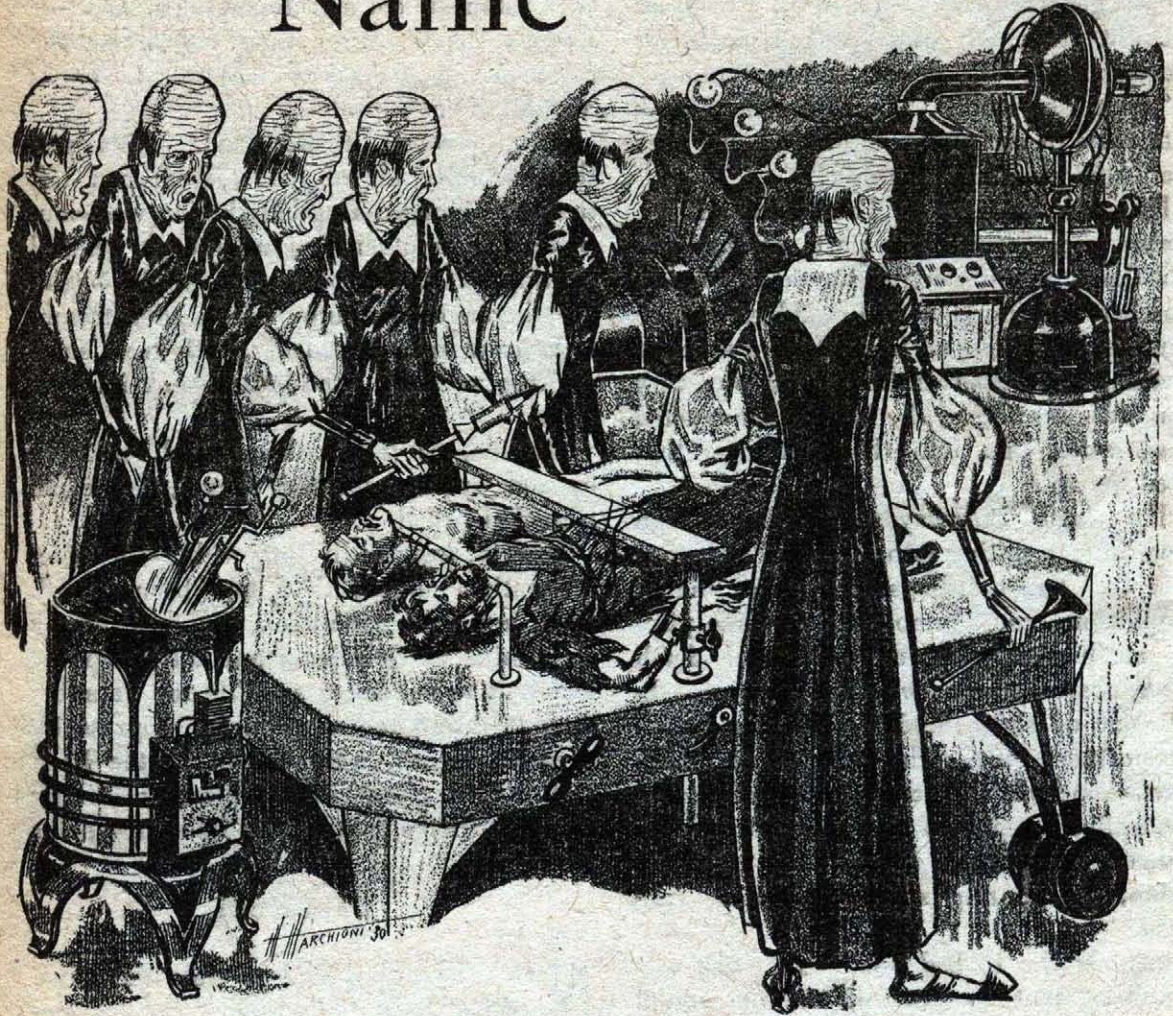
From all sides of the landing field a great shout went up; the embattled citizens of Neina started their attack. Winging their way into the air as well as from the ground with such unbridled fury they fell upon the foe that Salvarius Carde, having himself escaped the blast by what appeared a miracle, would have sworn that his soldiers had been set upon by the fierce people of Helva rather than Neinians.

Bugles hastily blew formations, summon-

(Continued on Page 1184)

The World Without Name

by Edwin K. Sloat



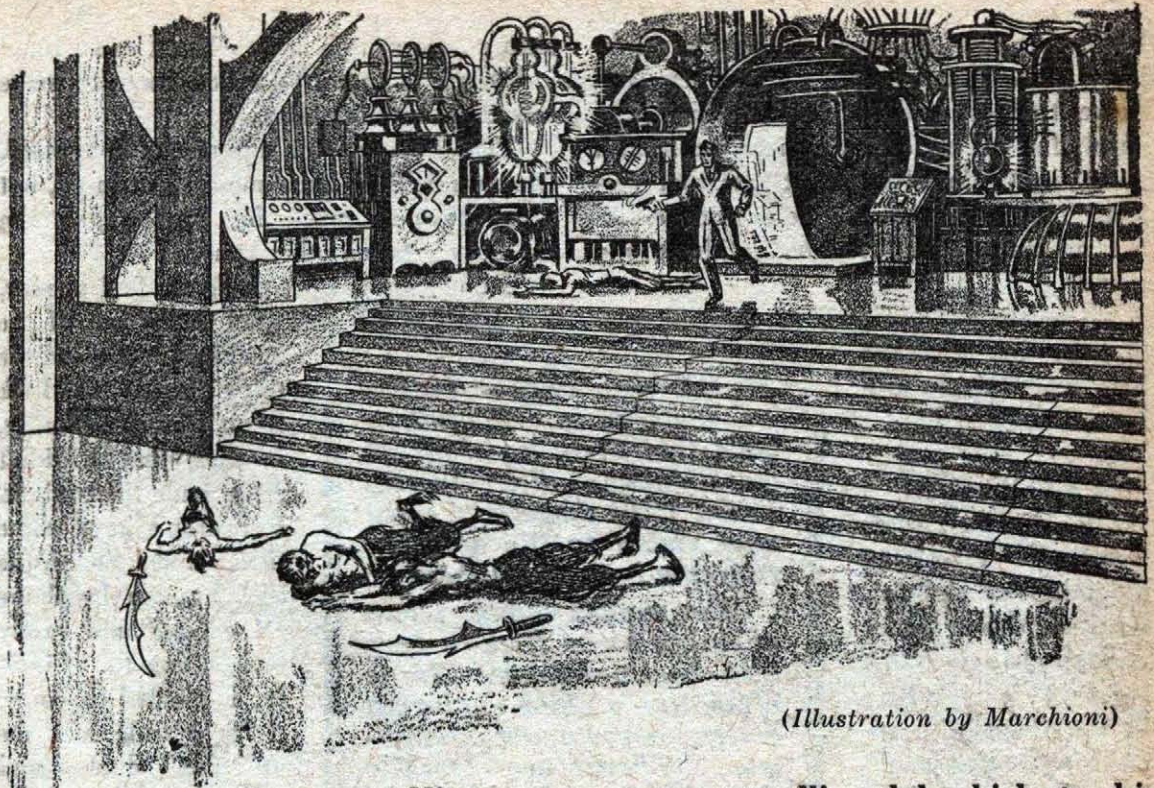
What was the world without name overcrowded with horrors who would invade our fair earth?

THE room was vast and cavernous. Occasional electric lights gleaming here and there in it fought off the encroaching darkness, magnifying its gloomy corners and the shadows among the cobwebbed, wooden girders of the roof.

In the dim light there appeared in vague relief a titanic, metal monster sprawling all along one side of the room on the floor and uprearing its disordered, ungainly shape halfway up the wall—twisted, tortured

masses of tubing, wires and coils that suggested, somehow, the vitals of a mechanical giant.

A maze of dials, switches, and gauges revealed the switchboard control of the monster, and near it stood a long, low table covered with green billiard cloth and lighted by a single electric light bulb suspended above it. Seven men were seated there all staring at a square of paper beneath the light on which was a mound of ashes such



(Illustration by Marchioni)

His eyes were on a vast rolling slab which stood in the center of the floor. On this slab lay two figures.

as might have fallen to the floor of a cremator when a corpse is consumed in it.

Seven pairs of eyes stared at the ashes with mingled awe, curiosity and loathing in the silence that gripped the place, a silence disturbed only by the booming rumble of thunder in the rainswept night outside, and the rattle of falling raindrops on the roof overhead. One of the men coughed as the acid-laden air bit his throat. He turned toward the open window nearby through which swept occasional gusts of fresh, damp air.

The eighth man, a lanky, powerful individual whose clothes seemed too small and tight for him, stood at the end of the table. He seemed uneasy and afraid. His glance darted from one face to another then unwillingly came back to the mound of ashes. Presently he resumed his story.

"I don't know whether Steinhilde was crazy or not. I didn't know him very well—no one around here did—but I reckon I

knew him better than the rest. That was because I dropped in pretty often and kidded him about all this machinery. Asked him what he was up to, anyway. He never talked very much, but sometimes he would shift those big shoulders of his slow-like and answer, 'Oh, that's my radio,' and then laugh at me with never a sound.

"At first I thought he was kidding me. Whoever heard of a radio set that half-filled a small factory building and had tubes as big as boiling vats and as many gears and wheels as a threshing machine? I thought this must be a laboratory of some kind. Once I even got all excited because I decided he must be making artificial diamonds like you read about in stories. Finally I pestered him so much to find out if this actually was a radio that he showed me.

"If you don't think that is what it is, just listen," he said, and turned to the switchboard.

"In a few seconds there was a roaring,

humming sound up there among the machinery in the gloom which ended when WJZ broke through with a roar of music. I nearly fell off my chair. There was almost no static, or interference, it was that perfect. Steinhilde watched me out of the corner of his eye and laughed without any sound.

"Oh, she'll do, all right," he said, patting the dial. She's the best entertainer we have, Josef and I."

AFTER that I came back often—got so I'd hang around every night after work to hear bands and orchestras that seemed to be right here in the room with us, and singers that might have been perched up there in the machinery somewhere. The applause at the end of the numbers was like the roar of the sea, and the announcer had a voice like a giant that boomed in our ears.

"Sometimes Steinhilde operated the machine, and sometimes his assistant, Josef, a little, dried-up old fellow who hardly ever talked and then only in broken English between puffs on his big black pipe. But they never offered to let me operate the thing.

"Then one day both of them were all excited about something, and didn't pay any attention to me. Steinhilde smoked cigarets one after another, and Josef tramped about the room here like a caged animal with his kindly face set and his pipe, cold and empty, clenched between his teeth. Two or three days afterward Josef wasn't here. I found Steinhilde with his eyes glowing like coals

sitting here at this table when I came in.

"Where is Josef?" I asked, more to make talk than anything else.

"Oh, he's away on a journey," he replied. "He says he'll be back soon. I'm sorry, but I can have no music for you tonight, I'm too busy. Some other time."

"I don't know what made me feel uneasy, but I tell you I was glad to get out of the building. The whole thing began to look funny to me; so funny, in fact, that I didn't come back till tonight. I wouldn't have come then, but Steinhilde called me on the phone all excited and fairly begged me to. Finally, I decided to come.

"Steinhilde met me at the door and brought me to the light beside the table here. He scared me bad—not his face, although that was grim enough, but what he wore about his waist. He had buckled a belt with a holster on each side, and in each holster was a revolver. Thrust through the front was a long, shiny knife, and from the right side hung three things that looked like old-fashioned potato mashers. If he noticed me staring at them, he didn't pay any attention, but only said:

"White, you are the only man I know well enough to trust just now. You are about to witness something that no one else except myself has ever looked upon. I'm going to step into that big ball there and disappear. Do not be alarmed. I'll come back. I just want you to see that nothing is tampered with while I'm gone."

The others at the table turned to stare at

OUR new author makes his bow to our readers with this thrilling story of an unknown alien world. Faced with disaster we see man rising to the occasion supreme and triumphant.

Man makes many, many mistakes as he tries to peer into the unknown. He is often like a child exploring a strange unknown mechanism. There are terrible dangers ahead for him if he goes too far . . . Yet man is willing to play the game. If he does make a mistake by "walking where angels fear to tread", into unknown worlds where terrible dangers lurk for his kind, he is willing to give up his life to pay the price of his folly.

Suppose that our fair earth were threatened by an invasion from unspeakable creatures from another world or dimension. Would any of us give up our lives, "unwept, unsung" in order to stop it and save our race from annihilation? This question is answered in the present story in a vivid and convincing manner.

the ball White indicated. It was a huge, metal globe with a mass of wires curling up and away from it like hairs from a human head. The interior, seen through a square opening large enough to admit an upright man, proved to be a perfectly spherical room, as though the outside of the ball was only a crust of metal and was lined with white, finely laminated substance like platinum. Beside the square opening was a switchboard with labelled universal switch in the center and a host of dials and knob controls.

"I was pretty scared and didn't say a word," White continued hurriedly. "The lightning and thunder outside didn't help any either. Without another word Steinhilde stepped into the ball, reached out to the switchboard and twisted a knob. Great tubes back up there in the machinery lighted up with a red glow that flickered on the walls like the light of a burning building shining through the windows. While I stared at him Steinhilde disappeared. He went out, just kind of like a match flame before a puff of air. I just went on staring at the empty space. Pretty soon ashes began to float down through the air out of nowhere to settle on the floor of the ball."

White paused, mopped his face desperately and stared about the ring of faces like a hunted animal, fearing to detect there disbelief. There was none. Presently one of the men glanced up.

"What did you do then?" he asked.

White gulped, then went eagerly on.

"I—I didn't know what to do! Did you ever see a man cremated like that before your very eyes? I never had. I've lived rough. I've stood up in the ring to some good ones, and I've been in mob fights where men's heads were busted like eggs. Once I saw a man knifed to death in a speak-

easy, but I never saw anything like this before.

"I was about scared to death! Here I was alone in the building. Maybe the police, you fellows, would think I did it. At first I pretty near ran away. Then I got hold of myself and sat down to think. I decided I'd better call the cops, and that's what I did!"

Only the sound of the raindrops rattling on the roof above followed. The coroner turned to the police sergeant and conversed with him in a low whisper, then turned to a detective.

"What do you think about it, Smith?"

"Plain case of suicide," declared the detective. "The old boy was nuts over this radio stuff and cremated himself. Probably bumped off his assistant, Josef, the same way. This Steinhilde ought to have worked for an undertaker."

"Those are my views, too," agreed the coroner. "There is nothing more we can do. However, one of the men had better watch the place tonight," he added with a meaning nod at White who was slumped down in his chair. "And before we leave, we might as well shut off the power and

save somebody some money."

He arose, went to the switchboard and pulled the universal switch. Immediately the hum of the concealed, powerful motors ceased. The others arose, buttoned their coats about them and left the room, leaving behind the detective who had been assigned to watch the building. He drew a chair up before the door, sat down and leaned back. The tragic mound of ashes had been taken by the coroner.

CHAPTER II

Station AAAOUK!

WHITE sat dejectedly in his chair. He had not been accused of the death of



EDWIN K. SLOAT

Steinhilde, nor arrested. Yet he was aware that he was under suspicion; he realized that the detective had not been assigned to watch the building, but to watch himself. He reviewed in his mind again the details.

It was not more than twenty minutes ago that Steinhilde had stood here before him talking. And now he was dead, and White was under suspicion for killing him. As he tried to analyze his feelings further, White found that he was vaguely uneasy from some cause apart from that suspicion. He felt that he had left undone something he should have done, or had betrayed something he shouldn't have.

He sprang to his feet and paced restlessly up and down the room, pausing finally before the battered desk at which he had often seen Steinhilde working. It was cluttered with papers covered with algebraic figures and copies of several scientific magazines. At the back of the desk against the wall was a collection of scientific volumes. White glanced at them carelessly and was about to turn away when he noticed a small, thin, red book wedged in between two thick tomes bearing German titles. He drew it out, and turned its pages idly, stared suddenly at the reading matter in amazement, then hurried back to the light, unnoticed by the detective who was nodding in his chair. White opened the volume and began to read feverishly.

"June 16—We have proved that the transmission of matter by the electronic disturbance set up by atomic disintegration is entirely feasible. Josef is so delighted he can scarcely talk. Our efforts of more than a decade are about to be rewarded. Weather conditions were ideal today, although I believe they will have no effect on the phenomenon, so we set up our miniature electronic sets in either end of the building shortly after midnight and by smashing the atoms of hydrogen succeeded in transmitting a pint of water from one to the other. The water disappeared from the sending set and came out of the receiving set as steam. Success is close."

White skipped several pages devoted to code and mathematical formulas before he

came to another entry. He grinned sheepishly as he read it.

"Josef is still chuckling about my simple plan of installing an ordinary radio receiving set with the speaker concealed up in the machinery of the atom disintegrator, and passing off the whole machine as a monstrous radio set. White obviously believes that is what we have, and so does our landlady. Well, brighter minds than theirs have been fooled by simpler devices.

"July 2—We have now finished our first big electronic set with its tremendous power hook-up. It stands fifteen feet high and is both a transmitter and a receiver. There is a peculiar circumstance connected with it. As soon as we put it into operation as a receiver mysterious sounds began to emanate from it. Josef was fascinated. He listened to it all morning, and copied down a number of what he thinks are messages. He believes he is on the trail of something big, but I think he is merely listening to some sort of static. It seems to buzz out the letters 'A A A O U K, A A A O U K,' over and over again. If the sounds come from some station, the letter combination must be its call letter. Josef points out that static doesn't usually repeat itself in that fashion. He may be right.

"July 3—Josef has a friend in Washington who is a code expert. Josef is going to send him the messages he has copied and see what luck he has with them. If they are of human origin and have a meaning, he can decipher them."

"August 1—Real success this time! We transmitted a brick from one little electron set to the other and it came out flawless. Tried a kitten next. It walked out of the receiving set in a dazed sort of way. Josef was so enthusiastic he sent the little animal through the process again. It seemed none the worse for the experience. The transmission was instantaneous. Even the slightest nerve impulse in motion at the time is transmitted with the matter.

"We also hooked the little set with the big one and found both reception and sending of the big set perfect. It was an easy matter to perfect it after we solved the mystery of the laminated inner surface.

“WHAT a war weapon we have discovered! Our imaginations are staggered by its stupendous possibilities. An army appears within the enemy's gates, transmitted there instantaneously thousands of miles across oceans, mountains, deserts and cities as fast as armed men can march in and out of the sending and receiving sets. All existing methods of transportation, except for pleasure, pass into history with the primitive ox cart, scow and pack animals. Distance vanishes. Hongkong, London, San Francisco, Buenos Aires, Honolulu, Capetown and Sydney will be but an instant, the fractional part of a second, away from each other.

“August 15—Josef received his messages back from Washington with an alphabet key. His friend, the code expert, says they were the hardest proposition he has ever tackled. Only through the merest chance, the fundamental fact that all human understanding is based on a few universal traits, did he stumble on to their solution then had to call on a linguist for ideas about translating them into English. Even so only a part could be made out. One message may furnish a clue to the identity of the station, although nothing in the European press dispatches indicates that the Polish armies are in the field at this time. Here is the message:

“The Pole Army is hard pressed near the big pass. Warning of a possible water shortage is given by Diamoude.” I can make nothing of it.

“Josef has an idea that may bear fruit. He is going to write the English translations for the messages, if he can establish communication with this A A A O U K, and will send first the original message, and then the translation, which will give the senders at that place a basis for communication with us if they can understand the idea. I hope this entire affair will not prove to be a hoax.

“August 16—After twelve hours of unremitting effort during which Josef sat in front of our electronic set using it in the sending phase and working with a loud, improvised buzzer, he finally got in touch with this mysterious station tonight. We were swamped with messages in code at

first, then a babel of voices and strange words poured out of our set in a torrent of sound. Josef finally broke through with the buzzer and started sending his prepared messages of the originals and the translations, when he ended absolute silence followed. We are now waiting.

“August 17—Our discovery! It is unbelievable! I shall not write down the identity of the place, A A A O U K, here lest this little volume should fall into strange hands and I might be suspected of insanity—more so than I already am, I mean. When I have enough proof I shall set it all down in these pages and then announce it all to the world. But until then the secret of our great find must not go beyond Josef and myself. However, I will say that communication between us and A A A O U K has been established on the basis of the English translation Josef sent them. I am fascinated. I cannot work further just now on the big electronic set we are planning to send to Washington.”

No additional entry had been made in the book for nearly two weeks, apparently, for the next page was dated September 1 and bore the following notation:

“Joseph is determined to go to A A A O U K. Their device for transmitting matter is obviously the same as ours, although I don't keep it synchronized with them for that—only enough to carry on communication. They have an intelligence that is almost genius, for they have learned to use English.

“However, we proved that we could transmit matter by sending them our kitten, and they, in turn, sent us a fish, a queer, flabby, gaseous specimen, which nearly died before we discovered that it needed salt water instead of fresh water to live in. It is certain we could send a human being.

“They have promised us a most interesting visit, if we will go to see them. Somehow, I am filled with misgivings over the prospect, but Josef is wild to go. His nature is too generous and trustful to have any suspicions of individuals of *their* intellect and accomplishments. They have promised to keep him constantly in touch with me, and he, like an overgrown boy that he

is. can see nothing but the holiday part of it. Everything might be all right, but I am afraid. I don't know why.

"September 3—Josef finally overcame my objections and went today. I believe he would have been sick if I had not given my permission. I turned the knob for him while he stood in the set smiling eagerly, all dressed up with his old, battered traveling bag in his hand. Against his will I made him take a revolver. He is such a trusting old soul I know he won't carry it after he arrives, but will leave it under his pillow, or on the dresser, or whatever kind of furniture they use at A A A O U K. I saw him standing there in the globe smiling. Then he was gone—vanished like a shadow.

In the World Without Name

"GREAT was my relief when I talked with him for fifteen minutes after he arrived. Then he went out to see the city. We talked again when he came back. He is enjoying himself hugely. I could tell that from his voice and laughter. But nevertheless I wish he was back here with me. I can't shake off that presentiment of evil. Tomorrow I shall throw myself into the delayed construction of that big electronic set for Washington. Maybe that will relieve my feelings, and in addition will surprise Josef when he comes back. God grant that he may!

"September 10—I knew it! I knew it! Great Heavens, what can I do? Josef got word to me this morning in German, a language they don't understand, although they doubtless would master in almost no time.

"For the love of God and humanity, Kamerad, don't let even one of these hellish creatures through our set!" he jerked out the words. "They thirst, yearn, crave and demand that I send them through the set. They will do anything to get through. If one of them succeeds in getting through our set, he will do as much damage as ten thousand, and the ten thousand will follow him—and ten hundred thousand more! After what I have seen here, it would be far better that both of us were dead and our set destroyed with its secret rather than have

that happen. They may torture me into saying 'yes', but don't listen, for I will mean 'no'. I am watching for my chance to get back to you, but they won't let me near the set now."

"September 15—I killed their fish today. Dismembered it. Threw it into the sewer drain. I don't trust even a fish from A A A O U K. Josef says our kitten can jump ten or fifteen feet into the air when it is frightened, and is kept on display before the crowds in the public square. They are becoming more suspicious of Josef for not ordering me to let them through. I fear for him. Sending that kitten to them was bad luck—very bad—I know now.

"September 19—I can stand it no longer! For two days I have listened to Josef's cries and groans under torture before their electronic set. To my pleadings for them to stop they repeat that they will continue until he is dead, or until I let them come through from their seething, over-crowded world. Tonight at seven they start again—burning away his skin and flesh with white hot irons this time. I cannot let them go through with it!

"My worker, my friend! I shall rescue him, or die in the attempt. I have my revolvers, and several hand grenades saved from the war. My plans are carefully laid. When they have him before the set, I shall quickly tune in ours to synchronize exactly, and act. I shall step out of their way, before they know what is happening, and clear the room. Before they can recover themselves I shall be back here with Josef.

"I have worked out the plan thoroughly. I'll call White over to guard the building and machinery in case we might be delayed. I'll set the automatic timer so that our set changes from a sender to a receiver an instant after I am gone.

"It is a desperate mission, and I may never return from it. I should perhaps explain what A A A O U K is. I know positively now. But before I write it down here I want to—"

White broke off his reading in abrupt horror. The current that operated the set had been cut off by the coroner when he pulled the universal switch before leaving

the building! Steinhilde had no chance to escape back to the safety of the building. And after he, White, had promised to see that nothing was touched or disturbed! He threw down the volume and cursed. Then he leaped to his feet.

There was still a chance. Steinhilde might even now be praying that the set would start functioning. White leaped for the switchboard and halted with his hand on the universal switch.

Suppose something strange, something fiendish, leaped out of the big ball? White shot a glance at the detective snoring in his chair, and crept toward him. From the armpit holster he gently removed the heavy automatic pistol, then leaped back to the switchboard and threw in the switch. The motors hummed to life, and the big tubes glowed. White poised grimly before the narrow door of the big ball. There broke on his ears with a rush the sound of trampling, thudding feet, a blur of strange words and the screaming of a man. The voice was Steinhilde's. He was shouting something, shouting it desperately.

"Ach, Gott! White, White, I see the set coming to life! Smash it! Smash it! They are starting through! Gott in Himmel! It is too late!"

THE scream ended in a sob. White scarcely knew what he did. Vaguely he saw his hand flash to the knob he had seen Steinhilde turn, and he plunged feet first into the ball. There was a sensation of a violent upward surge as though he was carried by a powerful elevator, then he collided violently with someone. He staggered but kept his feet as the individual he bumped into was hurled backward out of a doorway. Two other men, tall, thin, and grotesquely clad towered over him on either side. In a flash he grasped the situation.

He was in the electronic set at A A A O U K into which the three enemies of Steinhilde had already hurried! White hooked an arm about each one and lunged forward through the opening, taking them with him.

They shot out out onto a wide marble platform, or dais. A strange, monstrous,

half naked yellow giant who was standing there leaning on an immense sword gaped at him in astonishment. Then he whirled up the broad blade savagely and charged. Crack! White's automatic stabbed redly at him. The giant stumbled and collapsed, his nine feet of pale yellow body rolling down the broad marble steps to the floor twelve feet below.

Another yellow giant was closing in from the other side with sword upraised. White had no time to use his gun. He dodged inside the sword stroke and caught the guard a terrific left in the solar plexus that lifted him clear of the floor and hurled him down the stairs.

One of the long skinny men whom White had rushed out of the ball was worming his way back toward the opening. White dove for him. His frantic fingers gripped a skinny ankle. A savage jerk. White's eyes widened in amazement. The long body seemed curiously light as it shot out above the steps and crashed down to the marble floor well clear of the bottom step.

White whirled about sparring. The platform was empty except for the sprawled-out figure of the man he had collided with in the ball. White took in his surroundings at a glance.

CHAPTER III

The Torture Chamber

HE stood on a hundred-foot wide platform at the end of a vast marble hall, the ceiling of which towered a hundred feet above him, a ceiling painted elaborately with strange scenes. The walls were grandly and beautifully sculptured with weird beasts and distorted buildings and people. Along the foot of both side walls were shining, whirling machines, switchboards, squirming tentacles of heavily insulated wires.

He scarcely noted it all. His eyes were on a vast, rolling slab, much like an overgrown operating table, which stood in the center of the floor not more than thirty feet from him. On this slab lay two figures. One was Steinhilde, bound and helpless but

struggling desperately to free himself. The other was the pitiful wreck of an old man mercifully unconscious, his naked body giving mute, hideous testimony of the torture he had endured. Above the table were grouped tall, mummy-faced men in strange costumes staring in stupefied wonder at the intruder on the platform.

One of the kilted figures shook his head angrily to throw off the astonishment that gripped him. He started to aim a long, shining rod at White. Again the automatic pistol barked. The skinny man folded over and crashed to the floor, the rod clattering down beside him.

"White, White, get them!" Steinhilde's voice was wild with sudden, frantic hope. "Don't run for them! JUMP!"

White leaped savagely. His big, powerful body left the floor like a rocket, curving over in a gentle arc that brought him crashing into the group. The impact bowled them over like ten pins. There was a terrific flash and roar as the end of the fallen, shining rod exploded. One luckless man who had stumbled into its path dissolved in a puff of smoke and was no more.

Left, right, left, right! White's heavy fists battered them like trip hammers. He felt his victims' brittle bones crack and smash beneath his knuckles. He bored in harder, unmindful of the feeble jabs rained on him in return.

Abruptly he found himself standing alone and gasping, his fists red with blood. The tall men lay about him on the floor, some oddly still and others squirming in pain. Three survivors were streaking it for the doorway two hundred feet away. White's pistol leaped into view. Its bark echoed back from the high ceiling, as the trio dodged to safety through the vast doorway.

"Quick, free me!" Steinhilde's voice was still frantic. "Let Josef alone. I can carry him. Hurry, hurry! They'll be back with a whole company of guards and blast us into nothing. You took them by surprise once, but you can't again! Hurry!"

"Maybe I can reach that big door and shut it," grunted White struggling with the wires that bound the scientist. "It'd give us more time."

"No, no! Their death rods would cut through these marble walls like a hot knife through a lump of butter. Grab that sword off the platform and cut these wires."

White's pocket knife was already out. Its keen blade ripped through the bonds that held Steinhilde's ankles and wrists. He rolled off the slab to the floor, fell, and struggled to his feet again. With a mighty heave he threw Josef's limp form over his shoulder and staggered toward the marble steps.

Suddenly there burst through the doorway the ominous sound of a distant, moblike roar, the red, flaming rage voiced by an enraged crowd. The escaping trio were summoning help. A thrill of fear prickled White's spine. He turned and dashed after Steinhilde, glanced back over his shoulder and gasped.

FANTASTIC and grotesque as the whole affair had been, he could scarcely believe his eyes now. Through the doorway leaped a huge, strange monster that padded swiftly across the marble floor toward him. The thing was much like a great anthropoid ape, with a nearly human face, but instead of a single pair of legs it had two pairs, squat and powerful, that propelled it smoothly and swiftly along. It stood ten feet high, with a barrel-like body, huge, bulging shoulders and six-foot arms, a single pair that swung ape-like by its sides. The head was flat and sloping, with little, wicked eyes, and a huge, fanged mouth. The body was covered with red, woolly hair.

White jerked up the automatic and took a snap shot at the thing. Yet quick as he had been, the monster was quicker. It leaped sideways as the gun barked, and landed twelve feet away. Steinhilde feebly nearing the top of the steps with his unconscious burden, twisted his head about at the shot.

"Vacari!" he gasped. "Sort of a gladiator. Specially bred for the games for at least thirty generations, Josef says. This one is from the King's bodyguard. Sent ahead to hold us. We're lost now!"

White set his jaw grimly.

"Just go ahead," he growled. "Fall into the ball. I'll stop this nightmare."

The thing had dropped down to a crouching position with its knuckles resting on the floor and its legs doubled for the leap. White measured the distance. It was nearly sixty feet. The thing was watching Steinhilde and his snail's progress as a cat watches a mouse. Feebly the scientist crawled over the top step and approached the ball. A foot. Two feet. Abruptly the thing leaped. Up it shot from the floor forty feet into the air. White's pistol barked twice. Both shots missed the darting body. Down it came with a heavy thud almost upon him. A long, hairy arm whipped round him, pinning his hands helpless against his sides and nearly crushed the breath from his body.

He was lifted off the floor, and the thing ran nimbly up the steps and wrapped its other arm round the frantic, screaming Steinhilde and unconscious Josef. Then holding all three of them helpless, it braced itself with squat legs spread wide apart and laughed, a hoarse, coughing rumble of a sound.

White's stomach revolted as the fetid, stinking breath of the thing fanned his face. Try as he would he could not wriggle an inch to free his gun hand. He paused to listen.

The ominous roar of the mob outside was swelling. It filled the vast marble hall and beat on their ears. Steinhilde's eyes sought White's in hopeless anguish. They were a scant twelve feet from the doorway of the ball and safety, yet were as powerless to move as though gripped in a vise. Obviously they were to be kept for torture and death, and this thing that held them would be rewarded with a special carcass for dinner and a new wife for capturing them. White turned his eyes again toward the distant doorway.

The roar was still growing. Hundreds of people must be rushing in to the kill. He stared in fascination. Suddenly there popped through the doorway a small black ball, bounding along fifteen feet in the air at a bounce. He watched it fearfully, then ogled in astonishment. The ball was only a small, terrified, black kitten, leaping, spitting, clawing, in terror to escape the

roar of the approaching mob. Onto the rolling slab it sprang, then shot up into the air.

Down it came. Down, down, straight onto the head of the vacari, landing with a flurry of clawing feet as it strove to keep its balance.

The thing roared in startled fright, dropped its captives and started slapping with both hands at the kitten. Vaguely White saw the vast doorway fill with running figures. He whipped up the pistol against the side of the thing and pressed the trigger twice, then leaped over to pull his two companions out of the way of the falling monster.

SWIFTLY he ran with one after the other to the ball and threw them in, then turned to look for the kitten. It had sprung from the head of the now dying, threshing vacari to the top of the ball and was mewling there in terror. White never hesitated. Rather would he die than sacrifice the little animal now.

He looked down at the howling, racing mob. The leaders had struck aside two death rods aimed at him; they wanted to save the ball from destruction. White leaped upward along the curved side of the set. His hands closed about the frightened kitten. As his feet struck the floor again he thrust it into his pocket.

The mob was rushing up the steps now. One veritable living skeleton was several steps ahead of the rest. He was brandishing a sword. White caught his descending arm, snapped the wrist, and hurled the lanky body into the faces of the others, then leaped into the ball.

Again the powerful, upward surge. Before him was a narrow doorway. He leaped through it, stumbled and fell at the sudden heaviness of his body. He twisted about and hurled the pistol into the tangled mass of wires entering the top of the set. There followed a blinding flash as they short circuited with a crackling roar. Something hit White on the head.

"Where's my gat, you—— ——?"

White came back to consciousness with

(Continued on Page 1184)

The Terrors of Aryl

by R. F. Starzl



(Illustration by Marchioni)

It opened about six feet and the tongue flashed, so rapidly that the eye could hardly follow. It enveloped one of the smaller animals.

CORPORAL Bob Henley of the Interplanetary Flying Police came out of the deadly grip of the Arylian croup with the suddenness which marks a favorable turn of this disease, often fatal to Terrestrials, and known only on the strange little planet Aryl.

Private Chuck Emsinger, roasting the thigh of an unwary leaf lizard over a crude rock hearth, heard the premonitory rumble of Henley's chest, and hastened to the weed pallet in the corner of the cave. Turning his superior on his chest, he belabored his back heartily, driving out the thick green phlegm from the bronchial tubes. His crude first-aid efforts were effective. A few minutes later Corporal Henley lay on his back again, weak but without fever, looking around with clear eyes.

"Feel better?" Chuck asked solicitously.

"Yeah. How long've I been sick?"

Chuck took his service manual out of his pocket and thumbed the pages.

"Never mind the Arylian time. How many days standard terrestrial?"

"About eight days, Corporal."

Henley cursed softly. "That means Captain Nirvo and his gang will be at the other end of the solar system by now."

"No, I don't think so. I figure Nirvo thinks we're dead. You know a fellow can't see far on this lousy planet. Just after he shot us down he disappeared in a mirage. Well, we probably disappeared about the same time."

"Yeah, and again we might have looked as big as a mountain to him till we crashed.."

"Nope! He didn't follow us and make sure he'd finished us, did he? Knowing him like I do I can only figure that we passed out of sight."

"Oh say!" Henley exclaimed, sitting up with some effort, "The Juetnecar,* was it completely wrecked?"

Chuck went back to his roast and turned the other side to the fire before answering.

"Well, yes and no," he said judiciously. "We came down exactly on the edge of a 300-foot cliff. The moss was about fifteen feet thick, and we ploughed through that from top to bottom. I'd say it was an easy landing. But you was too goofy by that time to know the difference."

"This is my first trip to Aryl," Henley half apologized for his sickness. "It sure got me the minute we opened the ports. But about the motors,—can they be fixed?"

"We-ell now, maybe they can be fixed. If we had a machine shop or two. One of their chemical rays happened to get inside the after nozzle. It ripped off all the plates, blew up the ether com-

pressor tanks—a few little things like that."

Henley groaned. "Cut me off a slice of that meal and let me enjoy my misery." His request complied with, he ate his meal with relish, for his powerful body was gaunt. The stubble of his beard accentuated the hollowness of his cheeks, while the dark

MR. STARZL gives us in this story the strange deeds of brave men upon a strange world. The story stands out for its intensely vivid descriptions of the plant and animal life upon this world, this planet closer to the sun than Mercury.

The great eccentricity as well as the perturbations in the orbit of Mercury have for some time led astronomers to believe that there may be a planet between it and the sun. But it is possible that if there were one, its nearness to the sun might leave it perpetually in the sun's glare and therefore not to be seen from the earth.

Our author has a different and even more ingenious reason why such a planet has not yet been detected. But aside from the "science wonders" of this story, which are many, we have the heart-breaking struggles of two buddies on this hostile world. But they succeed in their mission and Mr. Starzl brings the story to a sudden, smashing finish.

*Named after Henri Juet its inventor. It was propelled by rocket exhausts the fuel being a special compound known only to the I. F. P.

curly hair of his finely moulded head, falling over his white temples and forehead, emphasized the hollowness of his deep brown eyes, now moody over their setback.

The capture of Captain Nirvo, the daring interplanetary pirate, would have been a feat to create a sensation even in the hard-bitten ranks of the Interplanetary Flying Police. Although young in years, that organization had already established its prestige to the outer limits of the solar system, and the mere presence of one or two of its members was usually enough to insure order and guarantee the safety of life and property in the most isolated and lonely colonies along the space lanes. The operations of Captain Nirvo, a cunning and highly educated Eurasian, were a direct and not-to-be-ignored challenge which had been promptly taken up:

But the wily pirate always eluded the traps set for him. More than one of the tiny Juetnecars, the standard two-man ships used by the I. F. P. failed to return, while outrage after outrage made commerce between the Inner Group almost impossible unless strongly convoyed.

Corporal Henley and Chuck had been close to success. They had trailed Nirvo's great fighting cruiser to this most sunward planet, had almost located his hidden harbor, when a freak of the highly refractive atmosphere had disclosed them to the pirates. There had followed a short, sharp fight, a sickening plunge to the still nearly unexplored surface of Aryl.

At any rate they were still alive, sheltered from wild beasts, had a fire to cook with, and the outside chance which is all that the I. F. P. asks of fate.

"You saved the ionic projector?" Henley asked at length.

"Yeah. I dismantled it and stowed it away."

"How about the hand weapons?"

"I left 'em in the ship."

"You didn't by any chance leave that round head of yours in the ship, did you?" Henley inquired politely.

"I left the hand weapons in the ship because when Nirvo got our motors all of our power cells went out the hole in the wall," Chuck explained without rancor, "but I brought the inductor compass."

"Useless! The atmospheric currents under the electronic bombardment from the sun will be much stronger than the ground polarity. And variable."

"Uh-huh," Chuck agreed, "and you can't even see the stars and sun. This here Aryl is sure the back alley of creation!"

"Worse! Pass me over another hunk of that roast." Henley tentatively put his feet on the cave's rocky floor. The flickering light of the fungoid fuel threw his shoulders grotesquely on the vaulted roof as he staggered to a boulder near the fire.

They munched hard-tack and meat, pausing to throw stones at the inquisitive, long-snouted rabbit-roaches that persisted in blundering into the flames, strange in

their cave-dwelling lives, and filling the air with the pungent odor of burnt hair.

"So it comes to this," Henley mused aloud after a long silence. "We're here, without weapons, without food or ship, on Nirvo's base planet. No chance of being found in time by our own gang."

"Nope. And we need lots of things, and there's only one way to get 'em."

"I'll bite. Where?"

"Get 'em from Nirvo!"

"I'm laughing," Henley remarked grimly. "Well, that's just what we'll have to do."

The mouth of the cave, utterly dark a little while ago, showed strongly increasing light, and the chill breezes which had been



R. F. STARZL

puffing in occasionally were replaced by currents of hot, dry air, as the un-homogeneous atmosphere, tide-torn and swirling, changed its consistency. It was almost equal to quartz in its light-refracting ability, so that all vistas were constantly swaying, dissolving, changing their shapes.

Chuck kicked another fungus log into the fire.

"S getting a little hot now, but we want to keep the fire handy. I'm going out to the ship and see what I can salvage." His heavy boots rasping, he strode out.

He had hardly emerged into the light when he noticed a small bird hovering overhead. As he strode along the valley floor the bird followed him, and he studied with interest the long, needle-fine horn forward-pointing from its head, its short fleshy wings, practically devoid of feathers, yet adequate in that atmosphere.

As he watched the bird suddenly spread out until it was of enormous size, fully seventy feet from wing-tip to wing-tip. Plunging downward at him, it emitted a raucous scream, its great claw-shaped ten-toed feet spread out. Its bill, at least ten feet long, and lined with countless ragged teeth, gaped open. Like an avalanche it plunged at him.

Chuck realized that he had been tricked by refraction. With lightning speed for one of his weight, he dived into the cliff moss a few feet away, burrowed deeper and deeper into the tough, interlacing network of vegetation, until at last he felt the rough stone fragments of the talus under his fingers.

Once something hard and slender and needle-sharp, like a giant poniard, passed through the sleeve of his uniform, rubbing smoothly against his arm. There were little dry clicks all around him as the bird probed for him with its unicorn-like spear, its head forced eagerly into the moss. Then it gave up those tactics, and rending the moss with its strong claws, burrowed after its prey.

Chuck knew what the convulsive movements of the tough vegetative covering meant. No doubt the bird was possessed of a keen scent, and was following his trail

under the moss. The frightful cries, now changing to a triumphant gobble, came closer. In the darkness Chuck could not see a thing, but once he heard the clashing of the toothed bill close to his side. He kicked violently, had the satisfaction of landing on something solidly, and in the ensuing hubbub found a new avenue of escape.

Fleeing along the lines of least resistance, he retreated along the face of the cliff, and in his irregular course discovered that he was going up a fault in the rock wall. He hoped the cleft would gradually converge until the vast body of the bird could no longer follow him.

The bird renewed its efforts, tearing along by main force, so that the entire thick brown mat was in a state of agitation. Fleeing with utmost speed from a nearly successful charge, Chuck brought up against a wall! With a sinking sensation he realized that he was trapped. The cleft had come to an end, but it was still several feet wide—wide enough, no doubt, for the bird to reach in and pull him out.

Preceded by a puff of sickish, sweet odor, the bird crushed its way in. The horny, hooked bill, clicking noisily, brushed his shoulder.

With a shout of despair and defiance, Chuck plunged ahead blindly. His arms closed around a thick, leathery neck, as big around as a barrel and slippery with an evil-smelling oil. Winding his feet among the short feathers, he hung on for dear life, hung on while the gargantuan body threshed in a frenzy of anger, clung to his hold though he was battered and bruised, deafened by the uproar, choked by the odor which, among its other faults, was rancid. Great claws raked vainly for him. And then he was smashed against the rock. As he lapsed into unconsciousness he caught a whiff of smoke.

The End of a Monster

HENLEY, considerably refreshed by the food, the first he had eaten since his arrival on Aryl, walked to the mouth of the cavern and looked after his companion's sturdy form as he trudged toward the cliff,

where a furrow in its thick vegetation matting disclosed the presence of the Juetnecar. He saw the seemingly harmless little bird burgeon out into giant proportions. It would have been a simple matter to dispatch the bird with one of the twin ionizer hand projectors, but in his present unarmed state the I. F. P. corporal stood for a moment rooted helplessly.

He saw Chuck dash into the moss and start his frantic burrowing for safety. Then he went into action himself. He seized a spongy, blazing brand out of the fire, ran as fast as he dared on his as yet uncertain legs to the spot where both man and bird had disappeared, now marked by rising clouds of dust. With all his strength he threw his torch into the midst of the turmoil.

The tough moss caught fire slowly, but the charred area with its encircling green flames spread steadily.

It was then that he heard the triumphant gobble of the bird—the despairing cry of Chuck. Sickened, he sank to the ground.

After a few moments the bird started to squawk hoarsely. The heat was reaching its body. Its violent efforts to escape shook the whole tangled fabric covering the cliff's face. It was all burning now, and throwing out sparks and wisps of burning fibers. Alighting elsewhere on the vegetable curtain, these started new centers of charred blackness spreading behind widening circles of green fire. Long, lazy curls of green, smothered in brown smoke, reached tentatively, climbed slowly up the cliff.

Under the burning moss blanket the bird's efforts to escape became more violent and its shrieks deafening. Out of the sky, appearing as out of nothingness, a mate to the first bird plunged down, the wind soughing strongly through its stubby feathers. It hurled itself straight for the body of the man sitting on the valley floor. But when it passed through the first faint wisp of brown smoke, still two hundred feet up, it wheeled sharply, climbed with amazing speed and in a few seconds was lost in the opalescent sky.

With a violent lurch the bird tried to throw off its flaming covering. Weakened

by the fire, and torn loose from its cup-ended roots, a section of the moss curtain was torn off about fifty feet up the cliff, collapsed upon itself, rolled down the talus slope. The bird, hopelessly enmeshed in the long, woody fibres, rolled with it, held helpless as in a winding sheet.

With a shout of joy, Henley staggered to his feet. He crawled up the slope and found Chuck's body about where he expected, still untouched by the fire. A long, ragged gash in his scalp seemed to be his only injury. Bits of burning vegetation were dropping all around, and at any moment another section of the cliff curtain might fall. Amid a small avalanche of rocks and a scurrying horde of white rock beetles, he dragged his friend to safety.

The bird had ceased its struggles. Saturated with its own body oil, the gigantic corpse was blazing brightly. As the sky was darkening again swiftly, the light from the great pyre was opportune. The moss fire continued its inexorable advance. A breeze had sprung up, and under its influence the cliff line, for miles, was a glow of green light, strangely distorted, mimicking giant serpents, waterfalls, castles of baleful light.

"If I go to hell, as some people think I ought," Henley remarked to himself, "it'll look something like that."

The small water generator at his belt held a few ounces of the liquid in combination with a catalytic which had preempted it from the air. Turning a thumbscrew, he freed the water, ice-cold and chemically pure, and dashed it over Chuck's face, so strangely gray under its tan. Chuck gasped, let out a round curse, and nearly brought his heavy fist against Henley's face before he realized where he was. He sat up dizzily.

"So that's that! I sure thought I was a goner this time. You don't happen to have a little slug of Mars-Ti* on you, do you?"

"You know that's against regulations," Henley rebuked him. Then he laughed. "Guess I could do with a few drops of it

*A malted drink originating on Mars called by the police officials Tinotime and abbreviated by the men to Mars-Ti.

myself," he conceded, "but it's only for extreme emergencies." A change in the wind brought the smoke of the burning bird to them. Purged by the fire, it had an appetizing savor.

"I'm hungry again," Henley said. "They tell me a fellow shouldn't eat so often after the croup, or it'll kill him. But if I don't eat I'll starve, so what's the difference?"

"Have some, but go easy," Chuck advised, feeling gingerly of his clotted head. "Me, I'm going to have a bit of him just for revenge."

They raked the glowing embers apart with the gnarled, brittle limbs of the so-called mineral oak, disclosing the flesh of the monster, delicately browned, hanging on the huge framework of its skeleton. They feasted, each according to his capacity, for they did not know when they would eat meat again, if at all.

"See that spear on top of his skull?" Corporal Henley pointed a dripping finger. "As soon as it gets cool, I'm going to have that."

"The hell you are? This bird pretty near spitted me with that. I picked it out for myself then!"

"Well," Henley rejoined comfortably, "I rank you, don't I? What's the use of my stripes if I can't rank you out of a spear?"

"Take off your stripes and I'll fight you for it," Chuck suggested.

"Naw, I don't want to fight. Grab one of the thigh-bones, burn one end off, grind it smooth on the rocks and you'll have a dandy club. You'll get all the fighting you want before we get through."

The discipline of the I. F. P. is strong, regardless of the informality in the relations of its members. Chuck selected a bone for his club, and they returned to their cavern in complete amity. The bewildering refractive changes of the atmosphere had brought on complete darkness again, and with it a chill, not noticeably allayed by the moss fire, writhing in long wavering lines high above their heads.

Seated once more before the blazing fungus logs they talked things over. The ship was lost irreparably now, a twisted mass of wreckage somewhere in the black ashes, but there was always the possibility of stealing

Nirvo's ship—a desperate remedy for a desperate situation. Although they had no way of knowing where the pirate landed, his ship had followed the line of cliffs. It was not unreasonable to suppose that by traveling along the valley in the direction they had seen the pirate cruiser go, they might eventually come upon his headquarters. After that—

But I. F. P. men rarely trouble themselves about future difficulties. They concern themselves with the immediate. So after piling their fire high with fuel, to discourage visiting carnivores, they slept peacefully the next nine hours.

CHAPTER II

The Battle of the Tripods

LATELY the perihelion excursions have made the peculiar and terrifying atmospheric conditions of Aryl familiar to thousands of Terrestrials, but in 1998 this strange planet, whirling dizzily around the sun inside the orbit of Mercury, was practically unexplored. Its dense envelope of gases, allotropic forms of elements known on Earth, are distinguished by their enormous light-refracting powers—so great, in fact, that they bend the light and radiant heat of the sun half-way around the planet, making it practically invisible from Earth. This same property, however, saves all living matter on the planet from instant destruction by the sun's heat.

When Henley and Chuck started down the valley in their forlorn-hope quest, the sun was, astronomically speaking, directly overhead. At the moment it was, however, entirely invisible, and a deep twilight reigned in the valley. The sky toward the southern horizon, sometimes black, sometimes opalescent, darting with prismatic colors, striated or suffused with deep purple blushes, gave the only illumination there was.

They had hardly been walking for half an hour, however, when a monstrous lenticular swelling bloomed up overhead, bending downward some of the fierce heat rays, and compelled them to seek the shelter of a great rock fragment. This passed, and was fol-

lowed by a fierce rainstorm of short duration, which deluged them with pungent smelling, lukewarm water. Then came blackness and silence.

They stumbled on and on, guiding their steps by the faint loom of the rocky ramparts against a faint green radiance that tinged the eastern sky. This vanished abruptly, and then, springing into existence against the velvet black screen of the afternoon sky, came mirages of breath-taking beauty. Piled seemingly ten miles high, mountain on mountain burst out of the darkness abruptly, with just a suggestion of the faint unsteady rocking motion that distinguishes the unreal from the real. Shimmering in all the colors of the rainbow, of loveliness supernal, they illuminated the valley with ghostly radiance. They might have been cumulus clouds, so effortlessly were they poised: they might have been molten metal, so heavy they looked and so metallic they gleamed.

"Well, I've seen the mirages of the Sahara, and I've seen better than that on Mars, but this has 'em all batty!" Henley exclaimed with real admiration.

"Wish they'd give a little more light," Chuck complained practically. "I've busted my shins on every rock we've come to since we started. By the way, what's that clattering noise back of us anyway?"

"Been hearing it myself," Henley said. "We passed the burnt section back there a couple of miles where the dry wash cut the cliff. Suppose it's some of the things that live around here."

"Yeah, what kind of things?"

"What do you care? They're not bothering us."

The slithering and clattering kept up. The officers kept going clumsily, while the mirages played and changed coldly. After some minutes Chuck said uneasily:

"If I was you I'd get that spear handy. Them things are coming closer."

"They are and I have," was Henley's terse reply.

There was no question about it. They could be seen now. There were glimpses of long, stilt-like legs, of round gray bodies, of fragile looking, triple, bamboo-pole

arms. One of them stood on a boulder some fifty yards ahead of them—stood still and refused to move.

"Holy smoke!" Chuck gasped, "it's a tripod!"

It was. Standing on three many-jointed legs, with an odd air of ease and unconcern, it looked disquietingly assured and competent.

"If they start anything, crack some of their knees."

Chuck grasped his club more firmly. "What knees? Never mind, I'll crack something."

Despite themselves they slowed down when they came within twenty-five feet of the creature. The three-legged thing stood poised.

It chose that moment to leap.

Light as thistledown it seemed to float through the air, but when the spherical body struck Henley, it knocked him down and almost crushed him flat. The frail-looking stick-like arms became pliable, coiled around him with the strength of steel bands. He grasped a leg—it was warm and furry—and twisted. The creature emitted a shrill whistle—apparently a cry of pain—and Henley twisted more. The leg came off in his hands.

But those relentless arms refused to uncoil, and quickly the creature's purpose became manifest. The blunt ends of the arms, fingerless, gristly, began to press into his diaphragm. Henley tensed his muscles, and the probing tentacle end pressed more strongly, insistently. He had not yet recovered all his strength, and every time he tried to ease the agony of his bursting lungs the coils drew tighter, the probe pressed harder into his yielding flesh. Soon he must be ripped open, torn to pieces by the monster.

Chuck saw Henley go down, and had a glimpse of cottony puffs converging on them on all sides over the rocky wastes. He heard the clatter of the corporal's needle-pointed spear, and then the nearest of the round bodies floated toward him in a graceful arc. He ducked, and in a mighty back-hand swing he brought up his thigh-bone club. It connected with a solid thud. The

round body fell, bounced, rolled away amid whipping appendages.

"Set 'em up in the other alley!" he shouted gleefully.

He heard a groan from Henley. Another ball floated toward him. He dodged that entirely, pounded his heel into the firm, round body on top of his superior, smashed the tentacle which promptly whipped around his leg on his own shin, cursed warmly, knocked down a couple of more of his strange adversaries.

"Good ol' club. I'm batting a thousand!" Another furry ball rebounded and fell amid threshing limbs.

"Keep clear of 'em and we'll fight 'em off!" Henley wheezed at his side, lunging with the late bird's spear and withdrawing it with difficulty, covered with a sticky, amber fluid.

"That's a fine thing for YOU to say!" Chuck retorted. "Where the (particularly described) blazes do these things have their heads?"

"Never mind. Hit anything you see!"

THREE of the bodies launched themselves at once. Henley impaled one, and couldn't get his weapon out of the wound. Chuck knocked another down, but the third, with lightning rapidity, threw its tentacles about them, drawing them together until Chuck's bullet head was jammed painfully into Henley's throat. A questing tentacle end slid over their bodies, looking for a soft place.

It slipped past Chuck's chin. Ugh! He snapped at it with his teeth—clamped his rock-crushing molars on it—gagged—bit harder. It was as tough as rubber, sinewy—of a damp earthy flavor and odor. Another of the woolly bodies bumped into them—more coiling arms sought for purchase. Henley's arms went around the body, hard, unyielding, like thin papier maché shells filled with pulp. He pulled at the wool, searched for an opening. At last he found something, a moist, gelatinous nodule the size of a man's fist. He raked at it with clawing fingers. It burst in his hand and the creature dropped dead.

"What was that?" he gasped, "its brain?"

"Ugh!" from Chuck.

Henley could not find the vulnerable spot of their other antagonist, but he began twisting the warm, wooly legs, almost doubled up as they were to get down to their level. They came off with little dry pops, formed a weird tangle on the ground. The struggling men, carrying the weight of the tentacled body, tripped and fell. It struck a rock, cracked like a pumpkin.

"Fooy! What a smell!" Henley picked up his spear, pulling it with difficulty out of the tough shell. The heat and light of day were swiftly returning. The sky, from horizon to horizon, was bright with a silvery sheen, shallow and sinister. The tripod-animals, or such of them as had recovered from Chuck's club blows, had slunk away, leaving their dead on the field.

His face gray, Chuck was undeniably sick.

"Bob," he gulped, "If you love me you'll give me a dose of your medicinal Mars-Ti!"

"Hanged if I don't!" Henley growled, "if I lose my stripes! Suppose I'll have to fill out seventy-seven apology forms when I get back to headquarters!" He handed over a small flat flask, breaking the official seal. Chuck tipped it to his lips, savoring the taste as he let it run down his throat, a drop at a time.

"Just how much d'ye think is a dose?" Henley inquired caustically, shaking the few remaining drops in the bottom of the flask. Rather than put a stopper on such a small quantity, he drank it himself, throwing the flask away.

"Oh, why is a hen?" Chuck inquired irrelevantly and happily. He picked up his club. "Let's push on."

The weird perspectives of Aryl were constantly changing, magnifying and minimizing everything seen; making distant objects seem near and near objects seem distant. They conjured up non-existing lakes in the valley bottom or standing at sharp angles in the sky; they created rock barriers across their path that melted as they walked through them. Or the illusion of clear, flat plains that resolved themselves eventually into tumbled seas of volcanic rocks, glass-

sharp and cruel, precluded any possibility of their forming an accurate idea of the distance they had traversed.

The endless cliffs themselves sometimes disappeared, to be replaced by a shimmering, outrageous parody of the sky. Then they could only wait until the kaleidoscopic meteorological changes should bring them back into view again.

Henley's belt chronometer showed that ten terrestrial hours had passed. In the brief day of Aryl it was now midnight, but the light, refracted from the day side, was stronger than ever, and the heat was oppressive.

They were chronically short of water, and longed for another of the tempestuous showers of rain which, though unpalatable, could quench thirst. Henley was weak from hunger, and so, when they encountered one of the Arylian sludges, an animal resembling a very dull and heavy antelope with great, flat, shovel-edged horns, Chuck stalked it patiently for half an hour. Just as he was about to leap out of the shelter of a rock to deliver the fatal stroke, it vanished into thin air. But the officer walked ahead to where he had last seen it, lunged with Henley's spear. There was a strangled cough and the dying sludge fell at his feet.

Guided by his calls, for Chuck himself had vanished, Henley clambered over the rocks. They made a fire of the drooping, thick-leaved vegetation, in the seed-cycle, which they found nearby, and attacked the rather tough meat, supplemented with hard-tack and vitamin tablets. They abandoned the remains of the sludge to the insistent, 12-inch needle flies that lurk everywhere on Aryl.

"Better take along one of his horns," Henley suggested. "It'll make a first-rate battle axe."

Chuck grinned, "This little ol' club is good enough for me. Let 'em come, is all I say!"

The Monster of the Flood

THEY withdrew into the shelter of the branches of a gnarled old tree which for the want of a better name has been called

the spike-cypress. Its long thorns lacerated their skins, reduced to still more picturesque rags their bright red service uniforms. At the same time its dense boughs were the only shelter available against the great carnivores whose trails they had encountered several times, and also guarded them against the unicorn birds, should any come that way. With their short-bladed service knives they hacked away enough of the thorns to allow themselves comfortable resting places, and looking up through a dense network of drab, spiny, leafless small branches at the iridescent sky, they fell asleep.

Henley, who always slept with his mouth open, snoring abominably, dreamed that he was being drowned in a sulphurous ocean. He sat up with a startled jerk, spat out a mouthful of warm, acrid water, flinched as the heavens split open with a dazzling violet band. No iridescent skies now, but a black unfathomable abyss that spewed its noisome water at them in sheets, in large blobs of dirty brown and black. Thunder of stunning violence equalled only on Venus shook the air.

"What the Differentiated Profanity . . ." Chuck awoke to the comparative silence following the thunderclap.

Henley cleared his throat with a final cough.

"Looks like rain," he remarked mildly.

CR-A-A-A-SH! Another blinding interplay of titanic forces over their heads. So brief and intense were the flashes that they left impressed on the retinas of the two men frozen pictures of gnarled limbs, motionless in gemlike sheathings of water.

"Hey Bob!"

"What?"

C-R-A-A-A-SH!

A moment's pause until the echoes rolled back.

"Bob, how'd you like to be inside the World Series ball park right now?"

"INSIDE? Hell, I'd be glad to be OUTSIDE of it!"

The interplay of lightning became more frequent, lacing the blackness, so it seemed, only a few feet over their heads, with ribbons and loops of lethal fire. The wind,

rising, soon blew a gale, screaming raggedly through the tossing spiny branches, etched at hectic intervals, jewel-like, in dazzling light. Presently a new sound intruded itself—the rushing of a stream, the surf-roar of storm waters as they poured down the valley in an ever-increasing flood.

Other sounds, too, could be heard in the intervals between the thunder-grunts, roars, screams. Strange shapes, nightmarish shapes, drifted past, limned against brown, dirty, foamy water in the lightning's glare—gone by the next flash. Enormous, outrageous shapes, plated, armored, horrid* with spiny growths, rolled in the current, caught on snags for a moment, drifted on.

"Bob!" Chuck shouted into the corporal's ear, "are you sure that Mars-Ti was government stuff?"

"Sure!" Henley shouted back. "Sure it's government stuff! I see 'em myself."

"Okay!" Chuck roared, much relieved. "I'd hate to see them things if it wasn't!"

The water had reached the lowest branches, and presently swimming things—well-eels, arabeids, sleek, mottled sandrats driven out of their dank, underground runways, tried to climb in. A few succeeded, but the most of them, transfixed by the merciless thorns, dropped off again and were swept away.

Henley looked down at the squirming bodies, spat in distaste.

"Fine company for a couple of gentlemen!"

But the hullabaloo of the thunder compressed his words, swept them away.

Something parted the water, fitfully revealed. Something with a broad, shiny back at least fifty feet long and thirty feet wide. Something with an enormous domed head at the top of which was a shuttered bony hood. It came with the current, but not helplessly, directing its course purposefully with quick, sturdy strokes of its legs or paddles. A broad, blunt snout parted the thorny branches—parted them as easily and as casually as a lady parts lace curtains. The tree shook as the snout struck the trunk, and several of the smaller fugitives fell into

the water or were pierced by the spines and died. The newcomer seemed to be resting. The hood opened, revealing a single, hexagonal eye that stared up into the tree fishily.

The two men had secured good holds in anticipation of the shock and retained their places. They watched the monster anxiously in the flickering light. It did not seem to be particularly pugnacious, but it was of a species they had never even heard of, and they were willing to give themselves the benefit of the doubt.

The wind died down, and after long hours the rain and electrical storm traveled away, muttering over the cliffs up the valley. The darkness gave way to streamers of elfin light, suggestive of the aurora borealis intensified a thousand times.

LOOKING in any direction, the prisoners of the flood could see an illimitable expanse of embroiled waters—water that flowed swiftly over hidden snags—water that dashed furiously over huge stones that obstructed its mad career. Water seemed to be dashing and foaming to the very horizon, probably a mirage, but this knowledge was a scanty source of comfort. The flood carried on its muddy bosom the carcasses of thousands of its victims—mostly the smaller animals, for the larger ones—except for the comparative few that had been trapped in the gorges at the beginning of the flood—had escaped.

The water was rising. And the enigmatic armored beast with it.

As if becoming aware of its opportunities, the animal's single eye moved, in little jerky steps, almost as if it had clicked into place at each new position. It surveyed the branches among which it rested, and the small animals withdrew uneasily. Suddenly a vertical crack appeared in the vast head, starting below the snout and disappearing in the water.

"Great suffocated coltoids!" Henley exclaimed. "Its mouth runs up and down."

Which was the truth. Instead of the usual horizontally working jaw familiar to all zoologists, this creature's jaws flexed sideways opening on a vertical line.

*"Horrid" means "set with many points" not "horrible".

It opened about six feet, and its tongue flashed. So rapidly that the eye could hardly follow it, the long, round corrugated tongue flicked out, enveloped one of the small animals, heedless of the thorns it crashed through, slid back between the jaws, which closed. Immediately they opened again, and the tongue, poised, came out a few feet.

In quick succession all of the living things on the lower branches were licked up, while the animals that had died were contemptuously rejected. The single eye clicked speculatively upward.

Shifting its enormous bulk, the beast tried to raise its head. The tongue quivered straight up, falling short of their perch by a scant two feet. Again and again it tried, and each time Henley stabbed at it with his needle-sharp avian lance. The weapon glanced off harmlessly and only for its exceeding toughness would have been shattered. The shock of the impact nearly threw Henley down.

It was evident that the water was rising fast, for the lower branches that had sheltered the recent small fugitives were now covered. Chuck, staring down, suggested:

"Our only chance is to put out its eye. Let me have the spear."

Henley shook his head. "No chance. You'd be picked off long before you got near enough."

Wham! The tongue, irritably threshing at their legs, had struck a lower branch, breaking it off.

"Our only chance," the corporal decided, "is to jump and swim for it." He said it lightly, knowing well that that was no chance at all. On all sides they were hemmed in by a maze of thorns set on slender branches. Nor could they go any higher, for their perch was already as high as the strength of the tree would bear. The only way out was down, close to the trunk, the way they had come up; for here was the only secure footing, and the thorns were less numerous. That way was barred by the monster.

Another wall of water, the contribution of some tributary valley, raised the flood to a new crest. Rising with the water, the beast rubbed its horny snout six inches

higher on the trunk. The two men stood up.

"Say, Bob."

"Yeah?" Blistering remarks about the thorns.

"Bob, you always liked those amber gallopers of mine?"

"You mean the ones you swiped from me."

"The ones I rolled you for, and won."

"Yep, the ones you gypped me out of. Sure I liked 'em."

"Well, I've thought it over. Don't expect to need 'em where I'm going. So here they are."

Henley glanced at the elegant spotted cubes in his big palm, stuck them into his pocket.

"That reminds me," he drawled, "I never paid you the buck you won from me the time we played jaw-bone at the Deimos station." He handed over a small crinkled metallic strip, the new Interplanetary currency.

"Thanks!" Chuck smiled.

So the men of the I. F. P. jest in the face of death.

The rough tongue whipped at their feet. It scraped the glassy bark off the limbs they stood on.

"Well, Chuck," Henley remarked quietly. "It won't be long now. Water's still going up."

Chuck took his hand, pressed it firmly.

"Count on me to give him indigestion!"

"You will!" Henley unbuttoned a pocket of his soggy uniform, removing a small metal cylinder. He took out a thin shiny scroll and a stylus—prepared to make his last report. The cylinder was capped with a radio-active substance and later, when searching parties looked for them, the radio-activity would be detected by delicate instruments and lead to the prompt recovery of the report.

From: Cpl. Robt. Henley, B118.

To: Commander I. F. P.

Subject: Pursuit of Pirate Nirvo.

1. Refer radiophotric message date Sept. 29, 1998 Terres.
2. Shot down by Nirvo inner Sorposphere Aryl 66br97AA.
3. Nirvo's ship last direct. Eq. 5437 (inv).

4. Believe Nirvo's position (approx.)
Eq. 5442. Est.

5. Treed by monster, unclassified.
Description: Length—

CHAPTER III

Over the Falls!

A SHOUT from Chuck interrupted the report. Bearing down upon them with terrific speed, its long tangled roots whipping through the water like innumerable snakes, was a gigantic tree torn from the soil at some place far up the valley. Many trees had passed them, some close by, but this was the biggest of them all. Its rough, scaly bark ran incessantly with water that was thrown up by the cross-waves. Its crown had been broken off, nothing remaining of the upper part of the trunk but long, saffron splinters, but the trunk itself, fully 25 feet thick and 300 feet long, was unbroken, hurtling toward them, an irresistible natural ram.

It struck their beleaguerer squarely in the back, forced the animal under, ground it to bits. It tore the spiked cypress out of the ground, shearing its massive roots with the ease of a knife cutting butter. The officers barely had time to scramble down, receiving some ugly thorn slashes. They fell into the water, seized the wiry roots of the great tree, which had not even paused in its thunderous course, climbed to safety at last. There were plenty of rifts in the craggy bark to cling to, so they were in no great danger of being thrown off.

But their crude weapons were gone. Once again they faced the savage life of Aryl with practically nothing but their bare hands.

The water was carrying them along with a speed of about fifteen miles an hour, and gradually there was a change in the surroundings, readily seen in a rare period of atmospheric stability. The air was clear, suffused with a brilliant greenish-yellow light which distinguished objects with hair-sharp definition. The tossing storm waters began to run with a deeper, smoother rhythm, banks appeared distantly on either side,

profusely covered with lush vegetation utterly different from that seen in the relatively sterile rocklands they had quitted.

It was evident that the flood had discharged into a large, deep river, which carried them, more silently but still more swiftly to some mysterious destination. The water slowly changed from a muddy brown to a deep, transparent purple, due, no doubt, to minerals in solution. The cliffs, coming out of the watery mirage, receded more and more until they faded out in the hazy distance.

Henley sat on one of the enormous warts which studded the tree trunk. His ragged uniform was scattered around him, steaming, for the heat was again appreciable. He was his old rugged self again, a young man whose long muscles flowed under his hide like a panther's. For hours he had lolled there, soaking up the rich actinic rays, which had given his skin a healthy ruddy glow. He looked fit, and was fit again.

Equally as naked, the short, heavy body of Chuck lay between two bark humps. Chuck was taking his sleep while Henley watched. Henley rose, walked over and prodded the steadily rising and falling ribs.

"Everybody out, Old Timer!" he yelled cheerily.

Chuck got up. "Hey, I only been sleeping about five minutes!"

"Argue with the clock—don't chew the fat with me." Henley slumped into the vacated hollow with a contented sigh.

"Going to get on some clothes before I start peeling." Chuck sorted out his rags. "Where the Indigo Blazes are we anyway?"

"Search me!" Henley threw his forearm over his eyes. "Who cares? We're going the way we want to, and don't have to walk."

"Yeah, we're going all right. But how d'ye know it's the right way?"

"Now why bring that up?" Henley dropped off to sleep.

It was almost pleasant there on the gently heaving bosom of the racing purple river. There was life aplenty on all sides of them, and under them. The bodies of the drowned victims, and those still feebly swimming, had been snatched down long ago by long, mossy jaws, set with serrated rows of four-inch

purple-stained teeth. On the shore great lumpy herbivores munched the fleshy tree-tops by the ton. Often there was stark, swift tragedy, when packs of outlets, tawny embodiments of destruction, flashed down from nearby stem-palms, ripping off yards of the stiff gray hides, actually burying themselves in the still living carcasses of their victims.

Often one or more of the outlets, which would have made a sabre-toothed tiger seem like a purring kitten by comparison, were crushed and killed by the clumsy attempts of the vegetarians to escape, but more often they dragged down their prey to the accompaniment of cascading hideous yowls which frightened even the big tree-leeches so that they dropped helplessly to the rotting jungle floor.

Life is cheap on Aryl—cheap and abundant.

CHUCK had stood about three hours of his watch when he became aware of a low roar—a beating, sinister diapason underlying and dominating the myriad jungle noises, all the way from the hoarse coughs of ground-shaking monsters to the intense shrill obligato of the insects which swarmed over the nearby marshes. Sometimes it was an actual sound that could be perceived by human ears—again but the mere consciousness of its existence. He waited another half hour, hesitating to awaken Henley, who, he knew, had really stood more than a fair share of the watch. It is one thing to grouse over a disagreeable duty, but something else again, quite outside the code of the I. F. P., to let your comrade carry part of your load.

At last, however, Chuck did not dare to delay longer. He shook Henley.

"Sorry, old fellow, but I think we're coming to a waterfall."

Henley sat up, diagnosed the sound in an instant.

"It is!" He looked at the shore, slipping by at growing speed. "We better get off here without delay."

"Over there?" Chuck inquired, as the flashing hide of a jumping outlet showed for an instant.

"Wel-ell no. Hardly!" They foamed past a barren rock outcropping in mid-stream. "More of those ahead. Could we make 'em?"

"I'll try anything once."

Henley grasped a root, leaned out, holding his tattered coat near the water. It was promptly snatched out of his hand by an enormous swift-water clam, anchored to bed-rock against the tugging current by a long ligament. The clam submerged with its bright red trophy and Henley scrambled into his underwear.

"We'll ride the falls," he decided. "Get into one of the bark channels and hang on for life."

He squeezed into a narrow crevice barely big enough to hold him, bracing his elbows and knees. The slight overhang of the bark made his position fairly secure. Chuck did the same close by.

The noise of the falls was overwhelming. The river ahead, as much of it as they could see from their cramped positions, was covered with a veil of mist. The trees became a heliotrope blur. In the next instant they were aware of a feeling of lightness, of exhilaration. The fall seemed to last minutes, though in reality it was only a few seconds. Then the tree struck the water.

It was like riding a great ship down—hardly any sense of shock as the butt struck the water, though roots were stripped off and bark cracked. Majestically the enormous trunk plunged into a deep pool, shooting far under a jagged overhang of water-worn rock a full quarter of a mile from the falls, like an arrow aimed slantwise. There it jammed into a crevice from which it could not release itself.

As soon as he felt the shock Henley struck out into the water. He wanted to get away before the commotion of the great tree's arrival had ceased to distract the attention of the always hungry water denizens who would surely be inhabiting the pool. He swam with long, powerful upward strokes, straining his smarting eyes for the purplish glow of the surface. Although the water pressure soon diminished appreciably, there was only Cimmerian blackness.

Henley had been under water over a min-

ute, and needed air badly. What a miserable end it would be to drown like a rat now! He was whirled around in a sudden eddy—the wake of a fish. Evidently he was not yet discovered, or he would not have survived that incident.

Although he was in utter darkness, Henley instinctively swam upward. There was no time to lose now. If the overhanging rock ledge did not leave room for air, it would be just too bad. His lungs ached, and he had to exhale a little air.

His upstretched hand struck something hard and slippery—the rock roof. His head followed, until it too struck the rock. Water lapped at his eyes. By bending his head backward and floating, Henley was able to breathe. Here the darkness was relieved by a very faint purple glow, but no welcome streak of light showed in any direction. Therefore the rock must dip deeply into the water on the pool side. He might be able to dive under that, as the log had dipped under and carried him in—if he only knew in which direction the pool lay.

By following the slight upward slope of the roof, Henley gradually found room to swim in normally, and a few more strokes brought him to a sizeable cavern. By cautiously swimming around he found a place where he could crawl out. He rested on a rock, clad only in his trunks and hob-nailed shoes. His undress did not inconvenience him, for it was warm. In a moment, now, he would dive and try to find Chuck. It was sure hell the way the Service ate up good men!

He heard a scraping sound in the inky blackness back of him. It made his scalp prickle. First the scraping, then a pause. Then the scraping, coming nearer—the sound of heavy breathing. Henley stared, hoping to see glowing eyes which would disclose the position of his new enemy. Very cautiously he crouched, looked around for a loose rock.

The silence was shattered by a roar:

“Hey, Corporal, where the undoubtedly condemned heck are you?”

“Chuck! You lousy skunk! Where did you come from?” Bursting with gladness Henley stumbled over to him, barking his

shins. He hugged Chuck and pounded him.

“Ow, lay off!” Chuck howled. “I got here about the same way you did, I guess. Pretty near drowned at that, and feel all busted up.”

“Chuck, I feel a little draft. Suppose there’s a way out of this?”

“Yeh. It comes from a crack back a little ways. Seems to lead up gradual.”

At Headquarters!

THE rock they were imprisoned in was a form of limestone, and in past ages, when the river was higher, it had been thoroughly honeycombed by the solvent action of the water. After trying several blind leads, they at last found a main channel, and for many hours they groped blindly through galleries, vast underground halls, barely passable cracks. Having lost all sense of direction, they tried to travel always on ascending grades, on the theory that this would bring them eventually to the source of the long dried-up ancient tributary to the big river which had made these tunnels. Once they stopped in a dry, warm crevice to sleep.

“How’d you like to sink your teeth into a steak about two inches thick, smothered in onions?” Chuck voiced his wistful thought.

Henley growled, “One more crack like that and you’ll be a casualty!”

They must have traversed at least ten miles, which took them 32 hours, when they discerned a faint light on the roof ahead. Joyfully they rushed forward.

The light came from a crack in the floor. They could hear the murmur of voices, but could not understand a word. It was evident that there was a lighted room under their feet. The floor was about eight feet thick at that point, and the crack, wide enough at the top, seemed barely a quarter inch wide at the bottom.

Henley crawled down, bracing his elbows and legs to get a glimpse of the room. He found that the crack was really in a thin shell of plaster with which the larger cleft in the rock had been patched. It appeared to be strong, and he rested his hands on it, while Chuck, lying on his chest, held his ankles.

Without warning the plaster cracked, and Henley dropped through. Chuck sagged, but held on. Henley's sweaty face appeared in the strong light.

"Let go and save yourself. That's orders!" he shouted.

"Orders be frizzled!" Chuck held on more tightly.

But his slippery resting place was not equal to the occasion. Under their combined weight he slipped off, followed Henley through the crack, landing asprawl on the floor. Both were shaken up, dazzled by the light, but not really hurt.

Blinking, they looked about them. They were in a long room, obviously once a part of the cave system but now squared up and leveled with concrete. At the further end was a barred door, and at the ceiling, near the center, was a powerful light tube.

About thirty feet away, at one end of the room, was a group of about fifteen women, richly dressed in the fashionable, clinging metallic robes of the day, more revealing, by accentuation, than practically no clothing at all. It would be hard to say who was the more astonished, but some of the women gave evidence of approaching hysteria.

A girl of about 22, wearing the blue robe of a space ship radio operator, detached herself from the others. She advanced a few steps and scrutinized them carefully. She was about medium height, slender, dark-haired, violet-eyed. A fillet of metallic lace, slightly bedraggled, held her hair in place. Her provocative features were puzzled, but showed no trace of fear. Chuck and Henley stared at her, and at last the latter gasped:

"Sally! What the—what you doing here?"

"Why—it isn't Bob Henley, is it?"

"Sure! Don't you know me? Don't you remember the time I rode in your ship on the Neptune course?"

"Oh Bob!" She ran impulsively and kissed him.

"Hey!" Chuck interposed, "He ain't even decent. Do you kiss me?"

"Of course, you lovely brush-faced tramps!" Chuck closed his eyes blissfully. "It seems so good to see some of the old

gang!" In a moment she said: "Really, you ought to get some clothes!"

"I've been wondering," Henley agreed, "where I could get some." He looked speculatively at a rather stout woman in the group that still stared at them stupidly. "I take it this is a prison."

"Nirvo's place," Sally said briefly. "Holding us for ransom. The last batch was ransomed about a month ago."

"How about the men?"

A shadow crossed her face.

"Dead. They started a fight."

"Yeah?" Both of the officers' eyes were slits. Some of the missing ships' crews had been friends of theirs.

"Yes, dead. They didn't have a chance."

"All right!" Henley snapped. "Now about the layout here. Any guards around?"

"Some electrical alarms outside the door, I guess. Guards bring us our meals."

"How many guards?"

"Two, but they're armed."

"Only two!" Chuck flexed his muscles in savage anticipation.

"All right," Henley said, "I want that fat lady's robe. Get her into the corner and screen her, if you like, but get me the robe."

THE fat woman started to scream at once, but her friends, overjoyed at the prospect of escape, overwhelmed her, stripped her of her expensive garment, and left her furious with only a maze of rubber supporting bands and a blanket to shield her dignity. Henley wrapped the robe about his tall frame, throwing a burnished streamer over his face like a veil. Motioning to Chuck to stand close to the wall beside the door, he waited.

The fat woman's screams served a useful purpose. Two bored guards, with scanty beards on their chins and cheeks, who wore the yellow pea-jacket uniforms of the pirate, unbarred the door and entered. Their projectors were carelessly holstered.

Henley stepped out, approaching them swiftly. They looked at his ungainly form with amusement, realizing too late that this was no woman, but two hundred pounds of decidedly male battle and bloodshed.

Henley caught the nearest with a blow to the jaw that slammed him against the wall. Chuck, growling, brought his muscular forearm down on the neck of the other, killing him almost at once.

They dashed into the hall, Henley's robe fluttering. Sally, with one glance at the fainting women, stooped and took a short thin sword from the scabbard on the dead guard's body. Henley saw her following.

"Get back!" he hissed.

"Get on!" she hissed back. "It's nip and tuck now."

Somewhere, muffled by many feet of rock and concrete, a siren was shrieking. In some manner they had set off the alarm. They came to the end of the passage. Warned by a sixth sense, Henley stopped them. He lay down on the floor and carefully peered around the corner. He saw a Nirvo guard with a projector leveled at the place where they could be expected to come dashing around. Carefully he brought his own weapon to bear. The guard never knew what hit him.

They ran up the other passage which was interminable. Then, when they saw the light of another opening, they were stopped by a metal gate. Chuck leveled his weapon at the lock.

"Wait! Save the juice!" Henley ran back to where he had seen some lengths of pipe, brought back a piece. With this he was able to pry the lock apart.

As they dashed through there came a soundless flash, almost in their faces. They stopped just in time. Someone stationed at one of the small square windows high up on one wall, which were apparently at ground level, had fired a moment too soon. Chuck released a flash at the window but could not tell if it had taken effect.

"No use saving juice now," Henley said. He took Chuck's projector, pointed it and his own on the outside wall. Under the combined power the stone flew into hot dust, deluging them with stinging sand and filling the corridors with a dense, white cloud. They helped one another out of the narrow hole, blistering their hands on the still hot edges, and ran for life and freedom, making for a clump of low-growing, dense vegeta-

tion some hundred yards away across an open field. A guard, startled, reached for his weapon, but Chuck's weapon flashed first. Sally snatched up the guard's weapon and inspected it as she ran.

"Short-circuited." She dropped it.

Back of the concealing growth they felt more secure, but Henley, with his customary forethought, compelled them to drop into a drainage ditch which ran at right angles to their course. It was disagreeable and muddy, but a moment later Henley's strategy was justified, when all vegetation where they had just been disappeared in a surge of light.

They paused under a culvert, reviewed their situation. "We're not out of the woods yet, just because they haven't followed. They may think we're dead, but Nirvo is too wise to take a chance on our rays when he doesn't have to. He can sit tight till we starve. In the mean time, let's follow this ditch."

They splashed through the shallow water for about a quarter of a mile, but never, as careful reconnoitering proved, were they out of sight of the rambling fortress. The ditch faithfully paralleled the low, rock-bound buildings.

Another hundred yards further on a slight dip of the ground level revealed something that brought a cry from them:

"Look! His cruiser hangar!"

There could be no doubt about it. The structure arising out of the field ahead and to the right like a silver bubble was Nirvo's hangar. It glistened in the failing light. Workmen were busy there, for the oval openings glowed golden.

Henley's heart leaped. If the darkness deepened they might be able to creep across the open space overpower the ship's crew, and seize the vessel. Then Nirvo and his crew would be marooned and would have to await their arrest when the I. F. P. got around to it.

The gray striations slowly faded out. Now for the break!

Nirvo turned on his lights!

There were seven of them, high in the air—so high, on thin borium poles, that they had passed unnoticed. Now they flooded the entire terrain with their powerful radiant

flood, even illuminating the distant jungle.

Chuck raised his projector, sighting at the nearest light, but Henley struck it down.

"You lunkhead! Want to show 'em just where we are? Let me handle this thing."

He set his focalizer so that the weapon emitted a thin beam, no larger than a man's finger, but of maximum concentration. In that powerful glare the little beam would be invisible. He aimed at a light approximately in the middle of the row, about four hundred yards back of them, pressed the trigger. Instantly the light flashed out. In quick succession he swept the beam over the others, but away from them. This gave Nirvo's men the impression that the fugitives were in the darkened area, and immediately every weapon was brought to bear on the darkened front. This took about five minutes, but at last the pale, deadly beams were turned on, and the effect was terrible. The soil itself was disintegrated, flying up in a dense cloud of dust that settled again, a dark pall, through which the projectors cut. As the charge cylinders became empty, one by one, the intensity of the barrage lessened. If there had been anything living out there, it was not living now, but the water, disassociated into hydrogen and oxygen, burned again with infernal heat.

Three lights remained, those illuminating the field about the hangar. Henley elected to burn out two, leaving the other to Chuck. This was a matter of seconds only. Then the three of them started their dash. They were at the hangar door before Nirvo realized that they were attacking, not fleeing. The two officers, charging together, overwhelmed the guards at the door, who had been interested spectators of the barrage and whose eyes had been dazzled to the fireworks. A couple of greasy mechanics crawled out from under a landing cylinder just in time to be knocked cold.

A challenge rang out. Another guard, inside the ship, had heard the noise. Henley saw his shadow before he himself appeared. He drew Chuck and Sally close under the side of the towering, egg-shaped vessel. The guard looked out, weapon ready. He saw the unconscious forms of the four men on the floor, hesitated. He had strict orders

not to leave the ship. After a moment he stepped out, however, very alert.

Henley's powerful hand shot up and out. He seized the projector, turned it up. Chuck uncorked a punch that started from the floor. The guard, slammed half across the hangar, rolled limply.

Inside! Nirvo, apprised of the occurrence in the hangar by his television spying system, had brought a freshly charged projector in line with the hangar. The metal sides curled and crumpled like tinfoil. The solid door of the battle cruiser slammed shut. The ship was armored with impermite—was therefore immune to the rays. Only a chance radiation directly into the orifice of a lateral nozzle could hurt them.

Henley rushed into the control room, quickly found the levitation wheel, for the arrangement was practically standard. No time, of course, to open the launching top. The stout cruiser crashed up through, bounced down on the wreckage a few times to crush the auxiliary Juetne cars that were probably under there. Henley took it into the air.

"You man the projectors," he ordered Chuck. The latter slid down the manpipe, took his station at the very bottom of the ship. He turned on the impermite ray-flector, flooding the terrain with light. They were passing at a height of about a hundred yards over the fortifications. No need for orders; they would rescue the other prisoners. Chuck would know what to do when the time came. Nirvo was futilely raying them, and Chuck retaliated with his power beam on stop 9, the maximum aperture. The stone and concrete flew to dust, but the projectors and their crews, in impermite turrets, were not injured.

The great egg-shaped fighting craft floated slowly toward the prison end, where the dense forest encroached closely on the fortress. They could see the breach where they had come out of the underground gallery, and, directed by Sally, Chuck sliced away the rock as far as he dared.

The cruiser came down on the wreckage, the gravitor at .012. It landed without a jar.

"Just point it," Chuck instructed Sally,

"and whenever you see anything, let 'er flicker." She took the big director grip and peered through the sights.

Sheltered by the ship, Chuck let himself out, and doubling, scurried through the ruined galleries. He found the prison without difficulty, the two guards still on the floor. One of them groaned. The women were in a state of abject terror, and he had to drag half of them to the ship by main force.

Once, rounding a corner with a struggling charge, he almost ran into a Nirvo soldier, weaponless, who had become isolated. The fellow was perfectly willing to fight, however, and delayed Chuck several minutes before he was battered, senseless, to the floor.

At last the rescue was completed. Chuck wiped the dirt and sweat off his brow, pulled the door shut with relief. Sally, her pretty face, high-colored, released a final blast of energy at the pirate cohorts, who were trying to approach behind impermeable shields. And then, with swift, sickening acceleration, the craft leaped into the air.

* * *

Corporal Henley, his lean face shaven and clean, drowsed in the navigator's chair.

"How do I look?"

Sally, miraculously refreshed and rested, stood at the door. "Like me?"

Henley as at her side in three swift strides.

"Do I LIKE you? Why you—you—"

Her wonderful eyes peered at him through long lashes.

"I know what you mean," she smiled tenderly, "You mean you LOVE me!"

Henley did not reply, but swept her into an embrace so fierce that only her pliability saved her from injury.

"Atta boy, Bob!" Chuck, shaved and scrubbed to the quick, a clean bandage around his head, stood at the door, straining the seams of his yellow jacket.

"Don't I rate in on this, just a little?" Chuck asked, after a moment, with odd wistfulness.

"Sure you do!" Sally said, never taking her eyes away from Henley's. "Look out in the passage, what Nirvo's op. left in the radio cabin for you."

Chuck looked, picked up a lusty, 1/2-liter flask of Mars-Ti, nearly full. His sentimentality forgotten, he removed the stopper and sniffed the stout fumes.

"Oh, well," he said comfortably, shoving the flask into his pocket, "a woman is only a woman, but this—this is medicinal!"

THE END

The
"Quarterly"
Interplanetary
NUMBER

IT WAS A CHASE THROUGH INNUMERABLE WORLDS

for that unknown Master C-X that led three valiant men to

"The Scarlet Planet" (by Don H. Lemon)

where they encountered a civilization whose nature and customs defied the reason and imagination of man. Beautiful women vampires who died voluntarily by drowning and were immortalized in their tombs; half-human beasts; strange cities and stranger instruments of torture all mark this marvelous novel-length story.

RAY CUMMINGS

adds to the power of this issue by his intense drama of the conflict of three desperate humans fighting off the death of suffocation and starvation in interplanetary space. Adrift . . . alone . . . they struggled—in

"The Mark of the Meteor"

The scientist revealed at last—at his best and at his worst—is a strange creature. In we find an unusual story of stupendous scientific weapons . . . the conflict of nations behind the scenes . . . torture and triumph for some . . . and disaster for others . . .

Edsel Newton

has written for this issue a very unusual story

"The Hour the Conqueror Came"

The strange concoction of a weird brain—multiple—is destined to play an important part in the lives of people. It spreads . . . engulfs . . . and leaves nothing to mark its path of ruin . . .

Also in this issue

"The Martian Nemesis" by George B. Beattie

"Pithecanthropus Island" by I. R. Nathanson

AND OTHERS

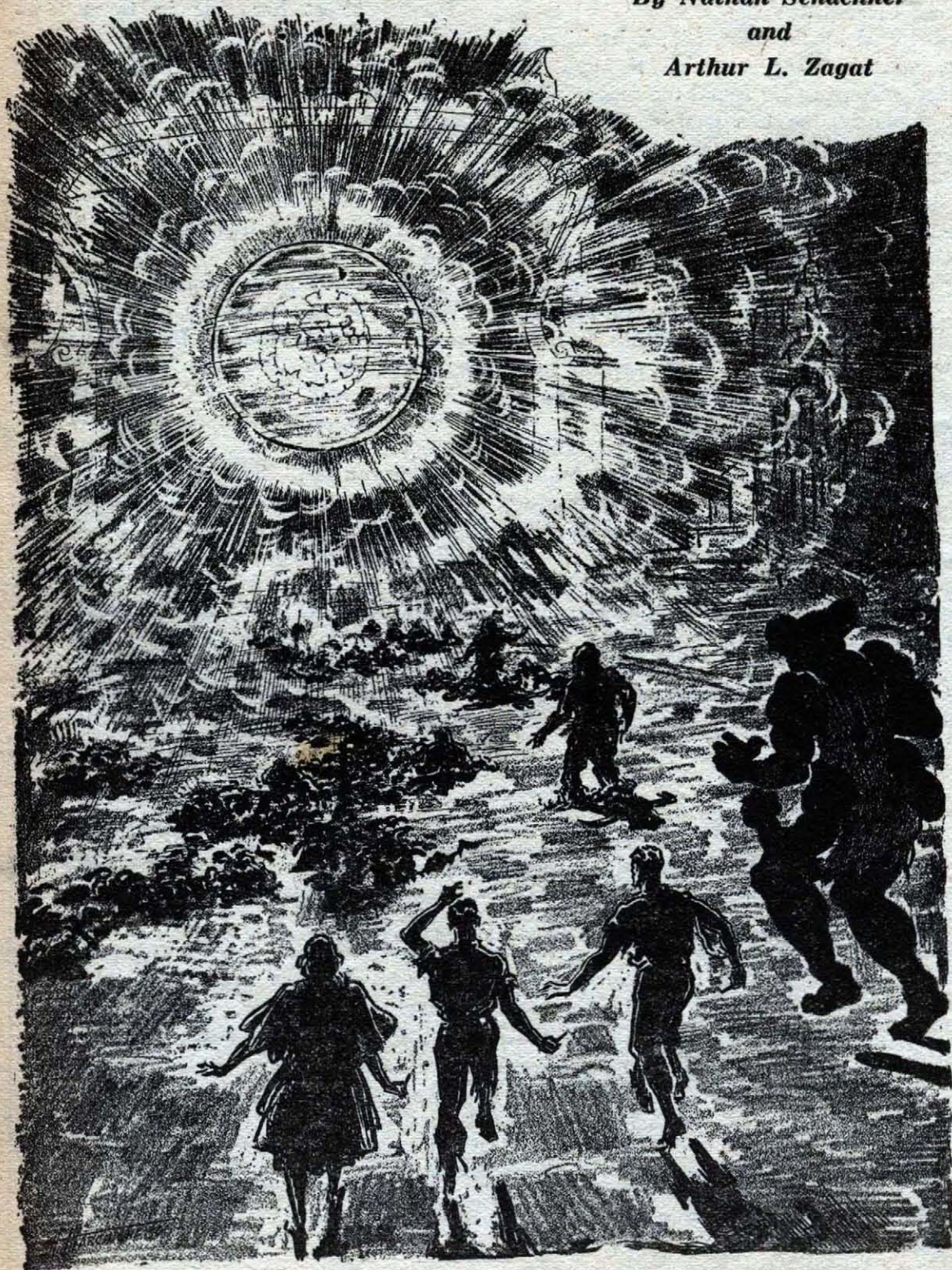
ALL IN THE WINTER 1931 WONDER STORIES QUARTERLY
NOW ON ALL NEWSSTANDS

Back to 20,000 A.D.

By Nathan Schachner

and

Arthur L. Zagat



(Illustration by Marchioni)

Our hair, our clothes were scorching from the terrific heat . . . the dense fuming air was a solid wall . . . But still we drove on.

“REMEMBER Tom Jenkins and the story of the Vanishing Wood?”*

“Will I ever forget it? Say, I still dream about the Jed. That naked, gigantic brain, encased in its quartz ball, floating high in the air and ruling a world by the sheer power of its superhuman intelligence!”

We were in Sid's laboratory. A place that always fascinated me with its queerly twisted shapes of glass, its gleaming coils of wire, its softly purring motors. I don't know anything about those things—I'm just a reporter hammering out murders, and investigations, and stick-ups at so much per column inch.

Often enough, in the years we have palled together, Sid has tried to drum into my head something of the matters that absorb his life but he always has thrown up his hands in despair. Over at the University, where they call him Professor Chapin, my chum is considered a brilliant teacher, and his students in physical chemistry idolize him—but he hasn't been able to teach me a thing.

A 'phone call from him had routed me out that morning. He was very mysterious about it, just said that I must get up to his place at once, he had something important to show me. He had hung up on my impatient questions, so there was

nothing left for me to do but get into my clothes and chase uptown.

“Yes,” I continued, “I remember Tom Jenkins very well. But did you drag me up here at this unearthly hour to ask me that?”

Sid grinned. “It's past eleven. To anyone but a night-owl reporter this is the middle of the day. But I won't hold you in suspense any longer. I've got a letter from Jenkins. Here it is.” He tossed me a grimy sheet of rough gray paper. The pencilled scrawl bulked large across it, childish, unformed, just the sort of hand one would expect Tom Jenkins to write—if he could write at all.

“Deer Perfesser.” The letter began. “i take my pen in hand to rite you about something I got to tell you. I hop this finds you in good health and mister Dunn the same. Ma has had a touch of the rumaticis this fall and the gray mare has the founders but others wys we are all o.k.

“i am in grate trouble and i dont no wat to do. charlee is heer not charlee jons the blaksmith but charlee from the cuntry wat i told you about and wat mister Dunn wrote the piece about. i got him hid but i dont no wat

to do with him. wil you come out heer and advis me wat to do.

“i hop this find you in as good helth as it leeves me and reman your frend Thomas Jenkins.”

TO those readers who read "In 20,000 A.D." the present sequel must be very welcome for it not only carries on the great adventures of that fateful time of the distant future but also introduces newer and more amazing experiences.

When we look back over the history of the human race, say for the past 18,000 years, and then project it ahead for 18,000 years more we can get a good index of the unbelievable changes that will occur to us before the year 20,000.

We know that the tendency is for the race to become more and more intellectual and less emotional; and for it to consciously rather than unconsciously evolve, as we control our environment more and more. Arthur Brisbane once said that the man of the future will be a cold calculating chess player who will be almost all brain and little body; and he will have to be carried around on air cushions to avoid even the most delicate of shocks to his nervous system. Our authors go several steps further than Mr. Brisbane in their prophecies and give us pictures of a future world that are almost unmatched for their imaginativeness!

I gave vent to a long whistle as I finished the unpolished screed. "Charlie—here!" I exclaimed, "what does the man mean?"

"I should imagine just what he says." Sid was bending over a metal tank of some kind, doing something to what ever was immersed in the greasy fluid it contained.

"But—but it's incredible. Why, Charlie won't be born for 18000 years yet. Besides, he was killed by the Jed during the rebellion." That was jumbled enough, but what would *you* say if you were talking about someone from thousands of years in the future?

"No less incredible than Jenkins' story. And you believed that. After all, Tom came back from 20,000 A.D.—what's to prevent Charlie from traveling in time in the same manner? Remember, the farmer I ad didn't see him die. We just assumed that he had."

That was just like my chum. You couldn't feaze him. But my poor brain was spinning like a top. One thing I knew, however. Hell and high water wouldn't prevent me from going out to Blaymont and finding out what it was all about. "When do we start?"

"Just as soon as I finish this test I'm running."

"How long will that be?"

Sid glanced at his wrist watch. "About forty-seven minutes." *About* forty-seven minutes. You can't beat those scientists!

"What's the matter with finishing it when you get back?"

"Pipe down, young fella me lad. If I stop now it'll take me just three weeks to get back to the point I've reached. Jen-

kins and Charlie, and the Vanishing Wood will just have to wait three quarters of an hour longer."

Sid was wiser than he knew. Had he stopped the test then, it would have been far longer than three weeks before he could write finis to that experiment.

* * *

The sleepy Long Island town hadn't changed an iota since, six months before, we had walked up the road to the little farmhouse. That had been in the early spring of '32. Now it was fall, and, while the day had been warm, the sharp morning chill made me wish I had worn a coat. Sid didn't seem to mind it, as he strode along,

though he weighs a hundred and forty pounds to my two hundred and ten.

Tom himself opened the door, and his honest face lit up when he saw us. I thought his great paw would crack the bones in my hand when he grasped it. "Gosh, I'm glad you've



ARTHUR L. ZAGAT



NATHAN SCHACHNER

come," he burst out, "I'm near looney with worriment."

"What's it all about, Tom? Is it straight what you wrote me?" Sid drove right to the point.

Jenkins' grin of greeting gave way to a worried, almost furtive look. "Straight, as God is my witness. Charlie's here. I got him hid out in the Vanishing Wood." He glanced back over his shoulder. "But say, I don't want maw to hear. I'll take you to him, and tell you about it on the way."

Across 18,000 Years!

THE strong reek of kerosene came to my nostrils as Tom fumbled with a lantern.

Then we were walking across the fields, the bobbing circle of light making the darkness a solid black wall pressing close about us.

"You see, it was like this," Tom began. "I been down to the store for some 'east for ma, and takes the short cut that goes along the edge of the Vanishing Wood. I ain't afraid of goin' near it any more. I know I'm safe so long 's I don't set foot inside it. I was hoppin' right along, 'cause I wanted to get home before dark when sudden like I heard somethin' moving right inside the Wood. 'That's queer,' says I to myself, 'there ain't no creatures ever goes in there.' I stopped, and peered in where I heard the noises. They'd stopped, too, an' I couldn't see nothin'. I was just about going' on when I heard a voice, callin' kind of low. 'Tom,' it says, 'Tom, come here.'

"Well, you coulda knocked me over with a feather. For I knew that voice! I started shakin' all over. 'It can't be,' I thinks, tryin' to hold myself from shakin'. 'He's dead. The Jed melted him.'

"But the voice comes again. 'Tom, help me!' And now I was sure it was Charlie's voice, Charlie that I'd seen last in the City of Mothers just before Karet led the crowd of Robots to fight the Jed. I don't take no stock in ghosts or such, but after what happened to me the last time, I ain't takin' no chances. So I hollered, 'Come out here in the light and let me see who you are.'

"The rustlin' came again, and then I seen somethin' big movin' behind the trees and brush. Then who should step out but old Charlie hisself!

"He just showed hisself for a minute, 'n jumped back. But he looks so scared, and so yearnin' like I forgot to be scared myself and I go right in after him. Sure enough, there he is, the old Charlie. He's all scratched and tore by the brambles, and he's thin and worn looking, but there ain't no mistake about who it is.

"He grabs me round with all four of his arms, and he hangs onto me like a big baby what's lost. 'Tom, Tom,' he says, almost cryin', 'how glad I am I found you.'

We came to a tumble-down stone fence, and scrambled over it while Tom held the lantern high. Not far ahead, a blacker

bulk in the darkness showed the wood for which we were aiming. Jenkins took up the story again.

"After I got him calmed down a bit I find out what's happened. It seems he and three or four other of the mistakes* had kind o' guessed what was going to happen when the Jed started talkin'. So they wriggled out of the crowd quick just like I did and beat it into the Vanishing Wood. Seems like the power of the Jed somehow couldn't get in there. And the Masters dassent go in after 'em 'cause it's forbidden for thousands and thousands of years. Charlie and his friends were scared to death too, but they all thought there couldn't nothing worse happen to 'em in there than what they seen happen to Karet and the Robots.

"One o' the bunch had a box o' the little white pills they use for food, and there's a spring in the wood. So there ain't no danger o' their starving right away. But they don't dare poke their noses out, and what they've got won't last very long, so they're wccryin' consid'able. They all kind o' look up to Charlie and make him the boss, and he feels it's up to him to find some way o' gettin' out o' the mess.

"He remembers me, and what I had told him of how I come to his time. So, one day he gets up his courage and jumps into the queer twisted place I told you's in the middle o' the Wood.

"**W**HEN the twistin' an' the turnin' is over he finds hisself on the ground. Just like me, he thought nothing 'd happened, but he calls to the rest o' his gang and they don't answer. Then he goes to the edge of the wood and sees the cows and mares in old Man Brown's meadow. That gives him a terrible scare, he's never seen nothin' like 'em before. I disremember 've told you there ain't no animals left in 20,000 A.D."

We shook our heads. He hadn't told us that. Tom continued:

"So he dassn't come out. 'Bout 'n hour later he heard somethin' coming along, and

*The "mistakes" were those of the slave class in the world of 20,000 A.D. who had been accidentally endowed with intelligence during the manipulation of their eggs before birth.

when he looks out, who should it be but me."

We had reached the edge of the copse. Round us in the lush meadow I could hear the countless small scutterings and pipings of the country night. But there, among the tall trunks of the age-old trees, was silence, dead silence. Not even the sound of a vagrant breeze whispering in the foliage. Tom had halted, and I drew nearer to my companions for comfort. The lantern light made a ring of safety about us.

"Well, sirs, I knowed that I couldn't bring him out and show him around. Just think what would've happened if the folks round here saw a black man twelve foot high, with four arms, four eyes, and big flaps where his ears ought to be. They'd uv shot him, or gone looney, or something. I tell you, I was stumped.

"But after a while I thought of you. You'd know what to do. So I told Charlie to be calm and patient, and I'd bring some wise men out to see him. Meantime I brought him out bedclothes and somethin' to eat. It was funny to see him at his victuals. He ain't never had nothin' but them white pills, and he ain't got no teeth. So I had to cut up everything very small for him like they do for a baby. He couldn't understand why he had to eat such a lot, and I had an awful time explainin' to him.

"He's just a little ways in here. Let's go in now."

We plunged into the thicket. The interlacing foliage overhead blotted out the quiet stars. We seemed to have passed from reality, to be moving, dreamlike, in a timeless, spaceless land. Sid muttered something under his breath, I could not quite catch it.

The waving lantern light picked out a bulk, a huge form, lying motionless on the ground. The sense of unreality deepened.

The actuality of this visitor from a hundred and eighty centuries in the future transcended my wildest imaginings. Jenkins' description had been accurate enough, but somehow, the conception had not quite struck home. Writing of him, I had persisted in visualizing something akin to the individuals I knew. A freak, but nothing quite as far beyond experience, as *different*,

as this. Yet there was something oddly human about him.

The blackness of him struck me first—a dull blackness that swallowed light. And his size! Twelve feet runs glibly from our tongues, but try to conceive a man twelve feet tall. A six-footer is well above the ordinary run, seven makes a giant. But twelve feet!

Details became clearer in the dancing glow. An extra pair of arms sprawled out from the hips. Huge shell-like structures on each side of the head—ear flaps that could trap the slightest sound. A peculiar excrescence over the closed eyes, like a pair of spectacles. Feet that were hoofs! A torn jerkin and loose fitting shorts of yellow material covered him from neck to knees.

Tom leaned over and shook the sleeping figure gently. "Charlie, Charlie, wake up!" The eyes opened, panicky fear stared out.

"Charlie, it's Tom, don't be scared."

CHAPTER II

The Flight Through Time

THE mountain heaved up to a sitting posture. Now that he was awake, and the black face was mobile with emotion, I could think of him as an intelligent being. Gradually the queerness wore away.

"Charlie, these here's the wise men I told you about. This is Perfesser Chapin, and that's Mr. Dunn. They're friends, Charlie, do you understand? They're friends, and they've come to help you."

The black looked at us estimatingly. Seated on the ground as he was, his head was on a level with my shoulder. Then a really intriguing smile came over his countenance. He said something, in a harsh guttural voice. The words were familiar, but I couldn't quite catch the meaning. These people of the future spoke an English that had been distorted by long years of evolution.

"He says he's glad to meet you, and he wants to thank you for coming."

"Yes, I understood," Sid broke in. "If he speaks slowly I shan't need an interpreter." I too, found the black's language

easily intelligible after a few minutes intent listening.

"One thing is certain," Sid said, after Charlie had outlined the situation to us, in confirmation of Tom's tale, "we cannot bring the Robots into our world. Our story of their origin would be disbelieved. They would be treated as freaks, made the subjects of scientific study, or public amusement. I can see only misery and unhappiness for them."

"You're right, old man," I replied, "That's no solution. And yet, they cannot exist for long in their present circumstances. Either the Jed and the Masters will find a way to destroy them, or they will starve to death when their present food supply runs out."

In that queer, distorted English of his, Charlie broke in. Eloquently he pleaded with us not to abandon him and his comrades to the mercy of the Jed. A strange sympathy moved me, I could read its reflection in the countenance of my friend. Suddenly, an idea struck me.

"Sid," I burst out, "why can't we go back with him? I'm sure we'll be able to work something out when we see the lay of the land."

"I was hoping for that." Sid's eyes glowed in the dim light. "That's just what I want to do. But I didn't suggest it. I was afraid my scientific curiosity, my desire to see the world as it will be in 20,000 A.D., was clouding my judgment. What do you say, shall we go?"

"Go it is!" A great surge of excitement flooded me. Adventure, undreamed of adventure, called to me. Charlie caught the drift of our talk, and his face, too, beamed with joy. But Tom was aghast.

"Go there!" he exclaimed. "Why, ain't I told you enough about it? I wouldn't go back there for all the money in the world."

"Oh, go on, Tom," I chaffed him. "You know you're just kidding us. I'll bet we can't make you stay home. You're just a-raring to go. I can see it in your eyes."

The lad was actually shaking with fear. He was white. "Who me? Gee Godfrey Whizzikers! Me go back! Not after I saw what the Jed done. No sir! Not me."

"All right, old boy. We won't insist.

You can stay home and tend to your 'taters," I soothed him.

The arrangements were quickly made. Charlie was to remain hidden. We should return to the city, make our preparations, and come back to Blaymont the following afternoon. Then—the Great Adventure.

And so, the next afternoon, we came to the edge of the Vanishing Wood. Tom was with us, muttering dark forebodings, making last efforts to dissuade us. Strapped on my back, and on Sid's, were great packs. We had a store of food, and certain instruments that my chum had insisted on carting along. There were other things, too. I shall not bore you with a detailed inventory. Strapped to my waist was the holster of a .38 automatic, relic of army days. And Sid tottered under the weight of an elephant gun that he had raked up from somewhere.

Charlie met us, towering darkly. All four of his arms were waving with excitement.

We shook hands with Tom, said goodbye to 1931 and the world we knew. Then we turned, and followed the Robot.

A few steps between the towering arboreal giants, and we came to a little clearing. Even as I looked beyond, the story of Tom's adventure flashed back to me.

For across that little clearing the trees were queer. No longer did they soar straight upward toward the life-giving sun. They were twisted, strangely distorted, oddly bent as though gnarled with fear. And, though there was no wind, their leaves were quivering.

On each side of a path the trees leaned away, curved in weird, uncanny twistings. And the path broadened as it dove deeper among the knotted trunks, so that I appeared to be looking into the small end of a funnel. The path broadened. I could see its other end—or could I? *For there was nothing there!*

NOTHING. Not a vast spread of sky such as one sees ahead when mounting a long straight slope whose crest hides the horizon, not a far spreading desert expanse. Simply, terrifyingly, *nothing*.

I glanced at Sid. His usually smiling

face was grim, his lips pressed in a tight line, his eyes glowing like black fire in the whiteness of his visage. "Come on, Ned," he muttered, forcing the words between clenched teeth. He moved forward. I forced my leaden feet to follow.

The huge form of Charlie entered the path—and vanished! A moment before he had loomed there, his head brushing the lowermost limb of a forest giant. Now—he was gone—as if he had never been!

Sid stopped across the margin of the clearing, blinked into non-existence. I gasped, a deathly fear at my heart. I was sorely tempted to turn and run for it. Then I too plunged into the fateful path.

A vortex of unknown, unknowable forces seized me irresistibly. I whirled down the funnelled path, the trees on each side writhing in fantastic, giddy dance. Suddenly, there was no up, no down, no *Space*, no *Time*. Even the parts of my body seemed to have lost relation one to the other, so that my head might well have been at my waist, my arms at neck or knees, for all I knew.

Path, trees, sky, sun disappeared in a vast blazing *nothingness*, a *white nothingness* through which I slid. Thought itself vanished, and consciousness was but a coruscating burst of white hot sparks that met, and whirled apart, and met again and flared asunder in a chaotic flashing kaleidoscope of whiteness. Eternally I heaved and fell.

Then—I was lying flat on my back, in the little clearing. And there were Sid and Charlie sitting up, blinking in dazed bewilderment.

"Are you all right, Ned?", my chum asked, anxiously.

"Fine. But what's it all about? Here we are, right where we started from."

Sid grinned. "Yes—we're *where* we started from, but we're not *when* we started from. Not by some score thousand years."

"Why—what do you mean?"

"Just that we're in the year of our Lord Twenty Thousand and Thirty-two, or thereabouts."

I stared at my chum for a moment uncomprehendingly, then I remembered. Of course! We had travelled in space not at

all, but in *Time*! Again I remembered Jenkins' story. He too had thought to find his old familiar world just beyond those trees through which we had come.

Charlie was on his feet. "Wait, till I return."

In a minute he was back, and with him eight others, eight gigantic blacks with the same four waving arms, the same hoofed feet, the same peculiar excrescences over their eyes. Now, at last, I began to *really* feel that I had reached into some other time. For peculiarly enough, where before Charlie had been an abnormality, a freak, out of place we knew, now he and his comrades seemed to *belong*, and we were the interlopers. That feeling stayed with me as long as we remained in the world of 20,000 A.D.

The Robots had erected for themselves a little hut near the margin of the wood, and they made us comfortable in it. Here we rested, and talked, while the light faded, and the shadowy dimness of the grove deepened into darkness. At last I said: "Sid, I want to take a look outside, I want to see what sort of place we have landed in."

My pal nodded. "I'm just as anxious as you. What do you think, Charlie, is it safe?"

"We often scout around the edges. It is safe as long as you don't go too far to be able to get back quickly at any sign of danger."

I parted the leafy curtain, and peered out. Bright moonlight flooded a fairy scene. For mile upon mile a flat plain stretched, a vast formal garden that might have been fashioned for some king of kings. Hedge-bordered paths of softly glowing gravel curved between banks of flowers, of gorgeous flowers whose like I had never seen. Supernally sweet fragrance was wafted to me on a gentle breeze. Soft fountains plashed in quiet symphony. And a myriad dancing sparks of light shuttled and weaved among the swaying blossoms.

One of the paths skirted the wood, its pebbles glowing iridescent in the moonlight. It curved in a great circle, and in the very centre of the circle stood a luminous form of glowing light that was a statue.

The Return of Arkon

VAGUE and misty as it was, the sculptured monument drew me to it with a yearning to see more of it. I slipped out, heedless of Sid's clutching hand, of his low cry of warning. I slid soundlessly across the soft carpet of sod, and the cold light and the sweet odors embraced me in a flood of aching beauty. I drew close to the soft shining statue, and now I could see it plainly.

In heroic proportion, the form of a man towered there, a man such as I, yet somehow different. A long grey beard flowed down over flowing robes, and the face radiated a wisdom such as never had sage of our time attained. Wisdom, and goodness, and something else, something inexpressibly divine.

Almost it seemed alive, that figure. I could feel those kindly eyes bend their wise gaze on me, welcome me. Why—they were moving! A deep voice thrilled me to the core with its slow accents. But it was a tired voice—one that had probably spoken this message through the ages to countless others that stood before it.

"I am Arkon, the Wise. I it was who devised the means by which first Man shook the dust of Earth from off his feet and voyaged through space to other stars.

"When the great Revolt of the Machines swept over the Earth, and the doom of Mankind seemed sealed, I gathered a small company, and set off for outer space, seeking a new home for the race. Nothing more has ever been heard from me, nor from the brave band of adventurers who departed with me in the ship I had devised.

"That the memory of a wise and brave and good man might be preserved forever, the Jed in his wisdom decreed that this image of me be created, and Taron fashioned me."

"Marvellous mechanism, isn't it?" It was Sid, at my side. I hadn't noticed that he too had slipped from the covert. "And yet simple enough," he continued. "There must be a beam of light projected from somewhere, that the spectator interrupts. It's focussed on a photo-electric cell, and the cutting off of the light causes a change

in the potential of the current that starts the speaking mechanism."

That's Sid for you!

A faint whirring drew my attention. Far in the distance I could make out a speck, floating about ten feet above the ground. Rapidly it drew nearer—a tiny boat-shaped object, approximately the size of a small canoe. Above the gunwale I could dimly descry a domed head. A Master! Doubtless sent by the Jed to intercept us.

I whirled, calling to my chum, who was busily examining the monument. "Sid, quick, back to the wood!"

We barely made it in time. As we dove into the underbrush the Master had landed, was extending a tube in a tentacled hand. A thin flame spurted through the night, spattered harmlessly against the edge of the Wood, not three feet from where we crouched. The Wood was inviolate! The Master stood there, and, though his face was like nothing in my experience, I could read in it a surge of baffled rage.

Tom's description had been accurate. Of the strange being's five feet of height, fully half was a great head, egg-shaped, hairless. I could see the staring, lidless eyes, with the pouches above that held an additional lens for close vision. The triangular breathing orifice with its pulsating membrane was clearly defined in the moonlight. And the puckered dot below that was the toothless mouth.

The torso was squat, cylindrical, and the stemlike legs ended in huge splayed hoofs like the Robots'. But the most striking features of the queer creature were its arms and hands. Not more than a half-inch thick were those arms, and they writhed and weaved like two elongated earthworms. At the ends they split into five thinner tentacles, waving fingers. Like the earthworms they resembled, those strange limbs could be extended, for five or six feet, or retracted so that they were but inches long. I shuddered. This, then, was the supreme evolution of man!

S UDDENLY, the creature was looking upward, interest, curiosity, astonishment growing momentarily more vivid on

his countenance. I followed the direction of his gaze. Far, far above, I could see a fleck against the lucent blue-black of the sky. Swiftly it fell, ever nearer and nearer, till it grew into a sphere, glinting metallically. A burst of flame flared from it, died away. The speed of the descent checked. The metal sphere drifted downward, settled softly on the grass.

I felt Sid's hand clutching my arm, but I couldn't tear my eyes from that ten-foot ball. The Master was staring at it in a manner that told me it was as alien to his knowledge as to mine. What was it, where had it come from? Palpably fashioned by intelligent hands, could it be a space ship, a wanderer from some other star?

A portion of the sphere's surface swung open, a sector of the shell a foot thick. Something moved within. Then—a man stepped out! Of all the astonishing, impossible things! From this craft from another planet, into an Earth peopled by four-armed black creatures twelve feet tall, and balloon-headed individuals with tentacular limbs, came a being as like man of 1931 as these other creatures were different! No eery shape, no fantastic, unimaginable nightmare form, could have astonished as half as much as the appearance of this tall, gray bearded old man, whose human countenance radiated benignant wisdom.

He moved with infinite grace, this man, as he turned toward the Master. But the calm dignity of his face gave way to startled surprise, for the Jed's subject was aiming the venomous ray tube at him. Another instant, and swift death would claim him. Another instant—but in that instant my gun had somehow leaped into my hand, had barked, and the Master sprawled unconscious on the ground.

We were out in the open, Sid and I, shouting. "This way, into the wood for your life, hurry." The stranger turned toward us, bewilderment in his eyes. But he seemed to sense our friendliness, instinctively to realize the urgent peril of his situation. For he sped unquestioningly for the shelter of the thicket.

Sid was shouting now, all pretence at caution gone. "Charlie, come here quick!"

A huge thrashing in the wood showed that his calls had been heard and obeyed. He snapped staccato commands. "Ned, into the wood with the Master." He stooped and snatched up the ray tube where it had fallen. "Charlie, have your friends get that ball in. And you help me with the air boat."

I slung the Master across my shoulder, ran for cover. Sid and Charlie, the flier on their shoulders, followed on the run. There was need for haste. A buzzing as of a swarm of angry bees warned of the swift approach of a bevy of Masters. From the corner of my eye I saw the huge sphere heave up to the shoulders of the giant Robots. That great mass was as nothing to their strength. Quickly as it takes to tell we were all back in sanctuary with our burdens. And none too soon. For outside a dozen aircraft had landed, there was a vast waving of tube-wielding tentacles. Shrill screams of baffled rage filled the air.

Was it some superstitious dread, still living in the consciousness of these supermen, some atavistic taboo that held them back from the margin of our refuge? Hundreds of centuries of inflexible law raised a barrier between them and us. I saw them stand there, not daring to set foot across the line that marked the edge of the Vanishing Wood. There was nothing to prevent their rushing across that line. If they did, we were lost. Our puny weapons could avail us little against their death-dealing rays. But, though they pressed close, they did not come.

CHAPTER III

Arkon's Story

POTENT indeed must have been the fear of the Jed that had forced Charlie and his companions to bring themselves to seek refuge here.

Once indeed, I thought they had conquered their fear. There was a concerted surge toward the grove. I raised my gun, prepared to sell my life dearly. But, just as another step would have told the foremost that his terror was groundless, he checked

himself. The others halted too. We were saved.

Suddenly, as though some telepathic command had reached them, all leaped into their craft. The buzzing sounded again, the airboats lifted, they were gone.

The newcomer was speaking, his deep well-modulated voice strangely familiar. He too, spoke an English, changed, but intelligible with careful listening. A different dialect from that of the Robots, but the root was the same, the language in which I write.

"Apparently I must voice my gratitude for a daring rescue," he said. "Strange that I should be so attacked at the moment of landing, and by so extraordinary a people. Or are they descendants of the Machines? I had expected to find great changes on Earth, but nothing like what I have already seen. Are you remnants of some few who escaped the great revolt? My mind is bewildered."

All this was incomprehensible to me, but my scientist friend appeared to understand. I noted that his face was lit with a glow of discovery, of wonder.

"As for what we have done, that is nothing," he replied to the stranger. "We are overjoyed that a most extraordinary chain of circumstances placed us in a position to aid you. But, before I explain, may I ask who you are, and whence you come?"

The other bowed his head, gravely. "I am Arkon the Thirty-Fifth, and I come from Neptune on a voyage of exploration, to determine if Earth is yet ready for the return home of my people."

Now the amazing truth flashed on me. Arkon the Thirty-Fifth! Arkon, the original of the image that had just spoken to me, must be this man's ancestor. I knew why this voice was so familiar, why his lineaments had seemed not quite strange.

We were again in the hut. Sid had just finished the narrative of the astounding events that had brought us here. Difficult indeed had it proved to convince Arkon of the truth of our story. But, somehow, he had accepted it. Now, he was telling us of the strange Odyssey of a little band of adventurers, somewhat of whose tale we had already guessed.

"My ancestor, the first Arkon, had just completed the final testing of a vessel he had designed to navigate space and visit other worlds, when the insurrection of the Machines broke forth. They swept all before them, and he became convinced that the race of man was doomed. Despairing, he gathered together a dozen people, men and women, and embarked for outer space, to seek a new home for mankind.

"For a long time the little band wandered through the void. They essayed a landing on Mars, but found conditions impossible for living there. Finally, just as all hope was gone, they reached Neptune. There they discovered an intelligent race of reptilian origin, and were enabled, through the genius of Arkon, to make known their needs. An agreement was entered into, by virtue of which the Earth people were granted a small area to settle in.

"Adjustment to the changed circumstances was difficult, but my ancestor had chosen his companions well, and the band survived. They made an abiding place for themselves, but never did they feel that they had found a home. Always a yearning for Earth gnawed at them, a longing to return to their native planet.

"A thousand years passed. Children were born, grew old, and died. But ever the old traditions of the beautiful Earth from which their fathers had been driven were kept alive, and the thoughts of each member of the little community turned over to a return. But, for many reasons, the attempt was never made.

"A year ago, however, notice was served on us that the time of our sojourn on Neptune was drawing to a close. The Neptunians were proliferating rapidly, the planet was growing overcrowded, and every bit of surface was needed for their own race. We were given two years to determine on our course. At the expiration of that time, we must leave, or be killed.

"The leadership of the Earth people had remained a hereditary obligation of the eldest male descendant of Arkon the First. I am the present ruler. We had always carefully preserved the plans of the first space ship, and I ordered sufficient duplicates to

be built to carry all our people. I called a Council, and the general view was that, if possible, we should return to Earth.

"But we had no knowledge of what had eventuated on our home planet. Had the Machines conquered, as was thought? Had they found a way to reproduce themselves and overrun the Earth, so that we should be repelled, or massacred? Or had they rusted out, leaving the world a barren, unpeopled waste? Or had mankind triumphed in the end, so that we would be welcomed back by our own people? These, and many other questions must be answered before our nation could choose the goal for our exodus.

"SO I decided to scout ahead in a small model of our space ships, to span the illimitable spaces separating us from Earth, and, venturing alone, to determine the feasibility of our homecoming.

"I came. And my heart is sore within me. From what I have already seen, and from what you tell me, Earth holds no promise of peace for my people. Mankind triumphed over the Machines, indeed. But better had the race died, than evolved into the ruthless, cruel, inhuman monsters that now people the world.

"We who, on an alien world, have kept alive the literature, the art, the religion, the dreams of a Golden Age, can find no peace, no home here in a world dominated by a naked brain, administered by soulless minds who know no pity, no love, no purpose save the ruthless attainment of their own desires. Even the beauty of that garden out there is a heritage from the age in which Arkon the First lived and dreamed.

"These Masters are the descendants of a little group of so-called supermen who, isolated in a group of their own high in the Appalachians, experimented with artificial methods of propagation, with intensive intellectual development, with all sorts of scientific interference with the natural evolution of the race. I have read their story in one of our old chronicles. But they were left severely alone by the rest of mankind.

"Apparently they seized their opportunity during the great insurrection, and made themselves dominant over the Earth. With

their infernal concoctions they subjugated what remained of the rest of humanity, and made of them imbecile slaves. They even changed their very form, their color, and produced such poor creatures as these." He indicated Charlie and his friends. "What hope would we have to be left in peace should we return?

"No. Better that we wander again through space, and drag out the weary years of our exile in such wandering, than return here . . . I must go and carry back the sad tidings to my people."

He bowed his head as he finished. I was inexpressibly moved by the tale he told. I felt conveyed to me the age long nostalgia of the exiles for their homeland; the daring of this man, speeding through the far reaches of space, all alone, buoyed up by the hope that he would find that at last it was possible for his people to return, and now his terrible disappointment. A thought began to flicker within me but, before it had taken form, Sid voiced it.

"Do not return as yet, Arkon. Perhaps we shall find a way to defeat the Jed and his cohorts and reconquer Earth for your people, and for these downtrodden Robots. My friend and I came to this time for that very purpose, we intend to make a try at it. Perhaps your knowledge added to ours will bring success."

A faint hope kindled itself in the noble countenance of the man from Neptune, even as he replied: "But how can you dream of such a thing? You tell me that this Jed has immeasurable knowledge, immeasurable power. His subjects are many, we are but a handful. I fear that you are carried away by an enthusiasm unjustified by logic."

I was proud of my friend as he answered. "It is true the task is a well nigh impossible one. It is true that the odds are tremendously against it. But—in the long history of the Earth impossible tasks have more than once been accomplished by determined men. Let us make up our minds that the thing *can* be done, and by God, it *will* be done!"

Arkon rose, his face glowing. He stretch-

ed out his hand to Sid. "I'm with you. We'll do it!"

And so we three, so oddly assorted, devoted ourselves to the conquest of a world.

The Rash Adventure

BY tacit consent, leadership was given over to Sid. He drove straight at the essentials.

"In order to make any plans, we must gather as much information as possible. At present we know very little about the people we are to combat. Jenkins' observations on his previous adventure here furnish the bulk of our knowledge. That is very little. His lack of education, his ignorance of science, prevented him from learning more than the most superficial things. The Robots' knowledge of their world is also little better than nebulous. From neither of these can we obtain the facts we must have.

"However, due to our recent adventure, we are possessed of two further means for gaining information. We have captured a Master. Ned's bullet, by great good fortune, merely stunned him. And we have one of the enemy's flying machines. Trust me to find a way to make use of it."

"Suppose we have the Master brought in," I suggested, eager to make a start.

"Very well." Sid nodded to Charlie, who all this time had been listening silently to our talk. In a moment he had hauled our prisoner in.

"What is your name?" Sid began the interrogation.

The Master stood defiant, not saying a single word. An ugly furrow across the top of his great balloon head showed where my bullet had creased him.

My chum took from his pocket the tiny tube, no larger than a fountain pen, that we knew could project a deadly ray.

"Look here. I have this, I shall not hesitate to use it if you cross me. The only thing that keeps you alive is our idea that you can be of use to us. Make up your mind quickly." I didn't realize that my old friend could look so menacing, that his voice could be so cold, so deadly threatening. "What is your name?" he asked again.

"Tarom," came the low answer.

"Your position or function in the state?"

"I am of the Guard of the Jed."

"Why did you make such an unprovoked attack on this man?" pointing to Arkon.

"Since the advent of the Primitive* the Jed has ordered that all beings like him are to be summarily killed without question."

"What is the Jed's reason for that?"

"The Jed orders, he does not explain."

"What means of offense and defense have you?"

"We Masters have our ray tubes, they are sufficient. We have only the Robots to fear, combat among ourselves is strictly forbidden. The Jed has other weapons. What they are, I do not know. I only know that when a Master refuses implicit obedience to the Jed he dies within the instant, and his body vanishes without trace."

"How does the Jed communicate his orders to you?"

"By telepathy—we hear a voice speaking in our inner being and know it is his."

"Can you hear it now?"

"No. Jed's power does not extend into this Wood; long have we known that."

We stood pondering, a trifle careless, I'm afraid. For the Master straightened suddenly, and before any one could stop him, was dashing madly through the wood. We rushed after him, reached the edge just in time to see him darting across the great level sward. Heedless of everything but rage at myself for having let him escape so easily, I was about to dash after him, when Sid's arm caught me. "Don't be a fool, Ned," he cried, "once out of this sanctuary and you are a dead man."

In a rage I raised my revolver, aimed after the fleeing figure. A grave voice spoke quietly! It was Arkon. "Nay, we desire no blood on our hands unless it be absolutely unavoidable."

Ashamed, I lowered the gun. "But our chance for gaining knowledge of how to combat the Jed is gone."

"Then we must discover other means."

I pondered the remark. Still smarting under what I deemed my laxity in permitting

*The designation for Tom Jenkins on his first visit. See "In 20,000 A.D."

our prisoner to escape, I cast about for some other plan, something I could do to efface the stigma. Now ordinarily, I am not a very brave man. I am not one of your roaring swashbucklers who love the bright side of danger and the tang of overwhelming odds. So that it must have been a slight touch of madness that caused me to propose the rash adventure I did.

"I have it," I cried excitedly, "the air boat we captured."

"Well, what about it?" Sid asked.

"Why man, don't you see it? The alarm has been given and shortly there'll be an impenetrable guard thrown about this place so we'll never have a chance to break through. And even if we did, what could we do, knowing nothing at all of what we'd meet. Charlie and the Robots can't help us much. So before the Jed's guards get here again, I'm going to get out of here—in the Master's aircraft."

I WAS carried away by my own enthusiasm. "Don't you see. It's night now. I can scout around, get the lay of the land, find out things."

Arkon looked at me with a smiling wonder that made me feel quite heroic. Charlie was positively worshipful. There is nothing more heady to a naturally timorous man than the wine of admiration. I felt equal to incredible feats.

It was Sid who pricked the bubble of my vainglory. Possibly he knew me too well.

"Most chivalric, this idea of yours, Ned," he said half-ironically, "but you've forgotten one little fact that would end your scouting disastrously."

"What is that?"

"Don't you remember what Tom told us? That the Jed is able somehow, not merely to communicate his thoughts to others, *but also at will to tune in on what passes through anyone's mind within his sphere of influence.* How far do you think you could get before he would know it?" Charlie nodded his great black head vigorously in assent.

My whole bright scheme collapsed into nothingness. Of course it was foolhardy. And being what I am, who can say that

there wasn't just a bit of relief about my disappointment.

Then Arkon spoke, gravely, unhurriedly. Never in all the desperate adventures we were to live through together, did I see him flurried, his noble demeanor ruffled, or his voice deviate from its even music.

"It is a remarkable coincidence that I have with me the means to combat in at least this one thing the subjugator of our race. Know that the reptilian denizens of Neptune, our outcast home, also possess this strange power. For a generation the thoughts of our people were an open book to our neighbors, a source of infinite embarrassment. It was Arkon the Twelfth who toiled unremittingly until he discovered the remedy. He invented a thought screen that, when worn, effectually shields the wearer from intrusion into his private thoughts. Since then, all my people wear the golden band, and once more their secrets are inviolate. I have one with me in the space ship."

The cold light of the confirmed scientist glowed in Sid's eyes, a light somewhat clouded by a skeptical reserve. "Impossible," he burst forth, "how can you shield or hide thought emanations by mere metallic bands?"

Arkon smiled benignly. "Nothing is impossible, oh visitor from an earlier age. Man long ago discarded that outworn word from his speech. But come with me to the space flier and I will show you."

Sid pressed behind him eagerly but, truth to tell, I lagged a bit. Now I would have to go through with my quixotic attempt, conceived in a moment of enthusiasm. Recovered sanity warned me of the inevitable perils ahead.

We entered into the interior of the tiny flier from another world. The walls were of the same strange metal that glowed with a soft radiance. Unusual looking instruments were clustered on the concavity, instruments that meant nothing to me. But Sid examined everything with a sort of covetous eagerness, as though he would pluck out of their very inwards the secret of interplanetary flight.

Arkon picked up a thin metallic band, and handed it to Sid. I stared at it in awe. It was open at one end, two small metal filaments marked the terminals. On the other side of the circlet was a little protuberance, from which numerous fine wires ran along the graved surface to the filaments. Arkon explained.

"If I remember my primeval history correctly, in your day you had learned that thought is merely a series of high frequency electrical vibrations emanating from the neurones imbedded in the brain tissue. Like all vibrations, they are carried through the ether, away from the point of origin, but, since they are very feeble in intensity, they do not progress more than a few feet before they are so faint that the most delicate ammeters would not register their presence. Evidently, however, the Jed and the Neptunians have discovered a method of amplifying and directing these faint waves so as to send and receive the signal with undiminished intensity.

"With these fundamentals in mind, Arkon the Twelfth set to work, and this was the result. Imbedded in the little knob at the back of the circlet is a very minute transmitter that generates and broadcasts waves of a period exactly corresponding to the thought vibrations.

"The current flows along the tiny wires, bridges the gap between the electrodes and set up a field of force that completely encircles the head of the wearer."

"I understand all that, and I get what you're driving at," Sid broke in, "you are attempting to set up an interference so that the artificially generated waves are just half a wave length behind the natural thought vibrations, the crests of one fitting exactly in the troughs of the other, so as to create a blanketing effect."

"Exactly," Arkon beamed, a bit surprised. "I had not realized that your time was so far advanced scientifically."

"You flatter us reporters," I interrupted, "it's still Greek to me, even though Sid seems to understand."

CHAPTER IV

Reconnoitering

BUT my chum plunged on heedless of praise or interruptions.

"All very pretty, but how do you modulate the wavelengths of your transmitter so that it emits waves of exactly the opposite phase."

Arkon smiled approvingly. "There is a very delicate micrometer screw near the base of the protuberance." We examined it more closely. Sure enough it was there. He continued. "Each half turn of that screw shifts the period of vibration by half a wave length. So that is merely a matter of experimental individual adjustment for each wearer."

"But how can you tell when it is properly set," I asked.

"Put it on, and I'll show you," the earthman from Neptune replied. I did so, the flexible band encircled my forehead, with the knob in front, the electrodes in the rear.

"Now turn the micrometer screw until you notice something unusual."

My clumsy fingers found the little mechanism, twisted it slowly. Nothing happened. I was beginning to fear it was some Neptunian jest, when suddenly my usually halting thought processes clarified. Instead of vague chaotic tags and shreds of thought flitting through my mind, consecutive ideas came to me, clear cut, sharp edged, crystalline.

I stopped short with an exclamation of surprise. Never before had I felt my brain so keen, so brilliant.

"Ah, I can see you have found the proper vibration series," said Arkon, who had been watching me closely.

"What is it, how did you know when to stop?" clamored Sid, bursting with curiosity.

I described my sensations, Arkon nodding his head the while. "That is so. Your thought vibrations are now completely shielded from the rest of the world. You see, by forming a wall of neutralization, the waves of thought pressing behind are thrown back upon themselves, and they rein-

force and amplify so that the sensations, the ideas they represent, are made more vigorous, more intense."

I was ready to shout with joy at my new found keenness of mind. "Look out Sid," I warned him jokingly, "from now on I'm the brains of this outfit. You're just my dumb assistant."

"Take off your disguise, I know you," he mocked back.

It was Charlie who brought us back to a sense of reality. He had been listening to us uncomprehendingly, with a touch of impatience. Now he pushed forward, timidly.

"Look, Masters, (that was the only salutation of respect he knew) the night is almost half over. If anything is to be done, there is no time to lose."

"Righto," I exclaimed, "I'm off."

"Here, where are you going?" exclaimed Sid in alarm.

"For the air boat of course."

"Nonsense, I won't let you go alone. I'll go too."

"There is only one thought-shield," came the grave voice of Arkon.

"Then I'm elected," said Sid, and he tried to grab the circlet off my head. I ducked just in time.

"Not a chance. I'm a reporter, don't forget. I have a natural nose for news, for prying into things. Besides, as the scientist of this party, your place is here, to concoct schemes in conjunction with our noble friend."

We argued back and forth, but the more Sid pleaded the more stubborn I became. I would go, and no one else. Finally he saw how obdurate I was, and gave in.

I hastened to the boat before he could change his mind. I examined the controls. I'm a rather fair amateur pilot of aircraft and it did not take me long to get the hang of the contraption. I was all set.

With a final squeeze of the hand that spoke volumes, Sid stepped back. There was a queer catch in his voice as he bade me Godspeed. The darned cold blooded scientific cuss—I never knew he could show emotion!

I waved with a cheeriness I did not feel,

pressed the proper button. A haze of blue light, and the craft lifted softly off the ground, straight up through the trees.

AT about a hundred feet elevation, I pressed another button. The soft blue glow turned to a purplish red, and the canoe shaped car darted swiftly over the plain. In a few seconds the Vanishing Wood was far behind.

To keep myself from dwelling nervously on what awaited me, I examined the mechanism of my captured craft a bit more closely. There was no motor, no propellor, none of the manifold equipment so necessary in our day for propulsion through space. Only a small oblong box in what might be termed the prow, to which the control buttons were attached. Not a whir, not a murmur, to disturb the even tenor of our flight.

I puzzled it over a bit. Then the answer dawned on me. Even in the year 1930 A.D. people were talking of the possibilities of broadcasting power, to be picked up and utilized by factories, automobiles, aircraft, and what not. Of course, that was it. Some central station sent out power, we tuned in, so to speak, and behold, we moved along on the crest of waves.

Now that I had satisfactorily disposed of that problem, and was unreasonably elated at my unsuspected scientific knowledge—fool that I was, I forgot to credit the thought-shield on my forehead—I glanced over the side of my vehicle. The park-line character of the land continued. But off to the west, and rapidly looming larger with the speed of my flight, lay a great cluster of buildings, the vast city of the Jed.

My heart beat faster. I was approaching my goal. It was utterly unlike what New York would look like, viewed from a distance. Instead of angular monstrosities, of jumbled canyons of oblong boxes upended, here were rounded domes and undulating curves, gleaming rose and blue in the bright moonlight. Inevitably I was reminded of the many domes of the Alhambra, of the Taj Mahal.

But my aesthetic wonderment abruptly ceased. For, straining my eyes, I saw a cluster of dark specks stream out from the

magic city, and hurtle directly for me. It took but a moment to guess what they were. Air boats like my own, manned by Masters, planning to give me a warm reception.

I could have turned tail and fled back to the Wood and safety. Afterwards I wondered at myself for not having done so. But at the moment the thought did not even occur to me. I was out on a mission, and I must accomplish it. I had my revolver with me, of course, but, that would be small protection against the ray-tubes of the Masters!

I took the only course possible. I swerved, and shot off at an angle. The distant specks turned and darted across my line of flight. I pressed the button all the way in; I was racing at maximum speed now. If only I could beat them to the point of intersection, I could then swerve around the city, and take my chances on losing my pursuers.

It was a race! Faster and faster we shot along, the aircraft of the Masters gaining handily. Already I could see the great bloated heads peering over the edges. Ray tubes glinted evilly in the moonlight, all pointed ominously at me. I measured the distance between us. It was no go. One boat at the head of the procession, would either crash into me or be right on my tail in short order.

I drew my revolver, grimly determined to sell my life as dearly as possible. Faint flashes darted from the ray-tubes. The streaks of light burnt along, stopped short yards away from my hurrying craft. That gave me some measure of comfort. My automatic could shoot further than their weapons. There were six bullets. Six bullets must mean six billets. Even in my great danger, I played on that little phrase.

The first air car was almost on top of me. I twisted the steering knob, angled off. He followed. I could see the Master crouched low. His ray projector pointed, the flame leaped the gap, sheared off the rim of my boat as cleanly as though cut with a knife. It whiffed into nothingness. I shuddered at the thought of what the damned ray would do to me if it connected. Then a surge of

rage swept through me. The dirty murderer!

I raised my revolver, sighted carefully, and let him have it. It caught him square on the bulging, leathery forehead, just as he was coming up to take another shot at me. The whole head collapsed like a pricked balloon—evidently there was not much bony structure—and the body dropped out of sight. The craft, left suddenly to its own devices, plunged erratically about until it crashed headlong to the ground.

The City of the Mothers

THE other Masters, beholding the swift demise of their leader, held back. They were not aching for a dose of this unknown weapon of mine. "You fellows may be far ahead of us in knowledge and all that, but you've lost some of the guts and stamina of your ancestors," I thought savagely.

It was funny, really this assumption on my part of all the courageous instincts of my age. But I didn't stop to philosophize. Instead, I turned swiftly about the great city, and though the Masters put up a half-hearted pursuit, I soon distanced them. They trailed out of sight.

"Now what!" I said to myself, as I careened past innumerable gleaming domes. The east was paling, sure precursor of the dawn. It wouldn't do to be found wandering about in the daytime. I'd pass out of the picture in a hurry. I'd have to land somewhere, hide the boat, and lay low until night again, when I could prowl around. But nary a forest, nary a grove of trees, broke the monotony of the great parkland. The city, of course, was out of the question.

Wondering what to do, whether it wouldn't be wise to turn back, the question was suddenly answered for me, neatly and effectually. The air boat slackened speed suddenly, coasted a while, began to drop. Frantically I worked at my controls—they were all properly set. The craft went into a tail spin. Strangely enough I was calm, unworried. I realized what had happened. That infernally clever Jed had called back his Masters, then calmly cut off the power. I was the only one left in the air, so natur-

ally my boat quit me. Just as I had worked out the whole thing to my satisfaction, I crashed.

When I came to, I was lying in a mass of wreckage, bruised, battered, but otherwise all right. I scrambled from under, thanking the Providence that protects fools and drunkards for my miraculous escape.

I looked about me in the dim dawn-light. There was no time to be lost. The Masters would be out after me again in force. Straight ahead loomed a huge structure, glowing with a shimmering golden light. A great central tower, domed on top as were all their buildings, rose boldly into the air. A massive battlemented wall, some twenty feet in height, swept in an endless arc. Some hundreds of yards from where I stood, was an opening, a thin slash in the great stone escarpment. Dimly to be seen in front of it, guarding the entrance, was a giant black figure, huger even than Charlie. A Robot!

How could that be, I wondered! Hadn't Tom and Charlie both assured me that all the Robots had been slain in the great revolt, except those few who had escaped to the Vanishing Wood? Again my brain was working with unwonted clarity—due, as I've said before, to the thought-shield.

Of course! The Mothers were still alive, the ova were still to be had. The Jed had created a new race of Robots, larger, possibly without any brains at all to succumb to the temptation of a new rebellion. As for their quick growth, it was merely a matter of activation that should be simple to the vast brain that was Jed.

But this train of thought put a new idea into my head. I had wondered at the vague familiarity of this imposing structure. Now I had it. It was the City of the Mothers that Tom had so crudely, yet effectively, described to us.

A fantastic scheme presented itself. Tom, I remembered, had hidden away in its vast interior. Why could I not do likewise? But there was the Robot guard at the gate. What about him? He was too immense for me to tackle physically. I should have stood no more chance than an insect underfoot. I could shoot him of course. But

the idea was repugnant, the poor dumb creature had never done me any harm.

I studied the situation, while they gray dawn grew ever paler in the east. Soon I would be visible to all and sundry, utterly helpless. There was no other means of escape except into the City of Mothers, and there, barring my path, was the unsuspecting Robot.

Not only my own life, but the safety of my friends, the salvation of the earth-people on Neptune, the rescue of this strange future earth from unspeakable tyranny, depended on my next move. I hesitated no longer. The automatic was in my hand. A sharp report. The poor Robot staggered, then, like a gigantic tree laid low by the woodsman's axe, crashed majestically to earth.

IT was the first and last time in my life that I shot a human being in cold blood, yet under the circumstances, what else could I do? Even at this late date, I suffer a twinge of conscience when I think of it.

Then, forgetting all but the desperate need for haste, I ran as fast as I could to the now unguarded gate. I sped past the queerly contorted body, not daring to look at my handiwork, in through the vaulted arch, intricately worked in a frieze of mosaic.

Straight ahead was the great tower, the home of the Mothers! Without an instant's hesitation, I made for it, passed through the ornate entrance, found myself in a lofty hall. Fortunately it was deserted at that early hour, or my adventure would have ended then and there.

At the farther end was the great shaft I was looking for. There it was, just as Tom had described it, a circular well, stretching up interminably, lit by a soft glow from somewhere, the walls of smooth shining alabaster. I examined the rounded wall carefully. Imbedded in the gleaming whiteness was a small round button, of green jade. I pressed it!

Though I knew what to expect, the suddenness with which I was lifted up into the air was breathtaking. It was an eerie sensation—that of rushing perpendicularly through space. Up, ever up, I winged, the

smooth walls rushing past me in giddy flight.

I came to a sudden stop, floated dizzily in thin air. Involuntarily I moved my legs, was surprised to find myself walking on nothing, toward the solid marble flooring that surrounded the open wall. I lunged for it, and did not pause to draw breath until I felt blessed solidity under foot.

Again I was in luck. The great rotunda was bare of living beings. The walls gleamed golden from innumerable coruscating pinpoints of illumination. Possibly some radio-active material imbedded in the marble slabs.

I gazed at it with a gasp of admiration. Over the great concave surface were painted murals, of a magnificence of conception, a sure draughtsmanship, a delicacy of execution, that would put our own noblest artists, yes, even Michelangelo's titanic vision in Saint Peter's at Rome, to shame.

Here was spread before my dazzled eyes in heavenly blues, yellows and greens, the whole evolution of birth from the earliest primeval forms. Here were depicted vast flowing amoebas in the throes of binary fission. Then in ordered array came the method of spore formation, the budding of great tentacled hydras, the first hermaphroditic sexual reproduction of writhing earth worms, and up through more and more complex forms, until I saw, with a shock of recognition, the faultless forms of a man and woman of my own era, painted as no painter we know could have envisioned their perfection.

From that point on, all was strange to me. The tale of men and women in love grew ever more complicated, while, alas, the glorious form degenerated into bulging foreheads and hideously foreshortened limbs, as our modern civilization went on relentlessly to its coldly logical end. Then there was no more differentiation in the pictures, neuter looking beings made their appearance. Man had found a way to reproduce without sex. It saddened me, that thought! All of love, all of the romance and generous warmth of life had passed out of a world to cerebral, too intellectual, to waste its time in such youthful illusions.

The painted representations of Masters and Robots completed the panorama, the end and aim of all our striving.

But even as I stared, something happened. As though at an invisible signal, the great paintings broke into seeming life. The pictures glowed and began to move. Dumbfounded I watched, thinking I was the victim of a strange hallucination. For each individual picture quivered and changed. Before my very eyes, the amoeba thrust out its pseudopodia, attenuated itself, grew slender in the waist, and broke up into two forms, each complete, that swam about on the golden walls looking for food.

The human male and female approached each other with lovely gestures. The Master gesticulated, and the Robot humbly obeyed. The whole vast scene of life was moving and living on the great surface of the rotunda.

CHAPTER V

The Voice of Jed

How I wished Sid was here to explain the seeming miracle. Long afterwards, when I talked it over with him, he suggested that the rotunda might have been composed of innumerable thin sections, each bearing a consecutive painting, that were slid into position over each other with the speed of a motion picture mechanism. It may be so, but somehow it leaves me unconvinced.

I would have watched the entralling, ever shifting drama forever, had not a grating noise brought me to a realization of my whereabouts. Senses once more on the alert, I shifted my errant gaze down to earth again. A door at the farthest end was opening.

I looked wildly about for shelter. Some ten paces to the right was a door, leading—where? It was no time for idle speculation. I had to chance it. I sprang for it, pulled it open, darted in, and closed it softly behind me.

I was in a great, cerulean-hued room, luxuriously appointed beyond my wildest imaginings. The floor was covered with shim-

mering silken rugs, the walls were hung with rare tapestries depicting unending lovely vistas. Divans, damask covered in strange geometric patterns, were scattered about in profusion. At the farther end a fountain gleamed.

The leaping water sprayed in a million broken sparkles of iridescence back into a rose-colored marble pool. Gilded birds with bright plumage flew circling overhead, and from their blue tipped beaks issued forth entrancing melodies. Something about the regularity of their flight, the unceasing flood of melody, caused me to examine a bit closer. They were *mechanisms*, in the very similitude of life, actuated—I know not how! A bower of delight, a Mohammedan's dream of Paradise! Only the houris were lacking.

But were they? For even as the comparison occurred to me, a figure arose from a divan half hidden by the plashing fountain. I stared frankly—bereft of words, of all desire for speech for the first time in my life. My heated imagination had conjured up a veritable houri.

Tall and stately she was, overtopping me by inches, and I am no dwarf exactly. A human creature, compact of fire and ice, a glorious being whose warm features, melting blue eyes, hair of burnished gold, made me search desperately in my memory for the felicitous phrases of the poets. But there were none to do her justice—for the very good reason that nothing like this ravishing being had ever existed in the world I knew.

There was alarm, consternation, in the great blue eyes; the full quivering lips were opening to cry out, to give the alarm. The gun was in my hand, but though my life might pay the forfeit, I did not dream of shooting. Instead I essayed a stage whisper into which I threw every bit of imploring accent I could. "Don't shout, please don't. I won't hurt you. I'll be killed if you betray me."

The beautiful creature stopped short, her eyes wide with surprise. She spoke, in the soft, slurred musical speech that once was English, her voice shaming the liquid gold of the birds that whirred in unceasing flight above us.

"Who are you, oh being that resembles me so closely, and yet are so strangely different; and what do you here in the City of the Mothers, where it is death to penetrate?"

"I am a human being like yourself, come from another age, when the earth was peopled with beings like ourselves."

An eager, puzzled look appeared in those limpid eyes. "Say you so! I do not understand what you mean by talking about another age, but are there really others who possess our forms and lineaments, others beside the few who are the Mothers? Others who are not dumb brute Robots, ugly misshapen Masters, or like unto the Jed."

A shudder of repulsion shook her, then a sudden passion went through her like a flame. "Oh human whom it is good to look upon,"—I believe I had the grace to blush—"oh unknown from I know not where, have you no thought, no pity, for the pitiful state of us Mothers—mere animal breeders for a populous earth, compelled to watch the callous Masters with foul chemicals, evoke out of the flesh of our flesh, the bone of our bone, monstrosities like themselves, or Robot beasts of burden, while we yearn for the sight of babes with rosy tinted limbs, to press and cuddle against our hearts."

She ended in a storm of passionate weeping. "It is cruel, inhuman, what they have done to us. Many a time I have peeped out into the great rotunda, and devoured hungrily the glowing shifting pictures of life and love in the past. How I trembled with strange emotions, how I yearned to be a part of that I saw. But it is not to be, for I am but a prisoner, bound here inexorably by Jed's decree—a Mother!"

EVERY fiber of my being responded to that pitiful lament—how I longed to draw that golden head upon my shoulder, to soothe that normal instinct of womanhood. But the memory of my mission, my own present danger, forbade.

"I have told you I have come from the past—the very past portrayed outside—where women there are—like you, though not so beautiful, and men like myself; where women are free to live as they deem best, where there is love and not cold chemical

solutions, where babes are borne by their mothers, and are cherished and protected by them."

Her face lit up with a rapturous hope. She clasped her hands beseechingly. "What you speak of sounds incredible—but your very presence here is even more incredible, so I must believe you. If it indeed be so, take me away from here, take me with you. I too must be free, free from this wretched bondage. But take heed of the Jed, lest he—"

Her panting voice trailed off into silence. A look of horror, of panic fear, suffused the beautiful countenance. A moan burst from her. "The Jed—he has heard!"

I did not understand. Alarmed at the sudden change that had come over her, the broken phrases, I was hurrying to her side, when I too was brought up short.

A voice was speaking—a deep vibrant voice that flooded me with its tones. I whirled around to meet its owner, but there was no one. I looked vainly about in all directions. There was something curious about that voice. For all its clarity, its vibrant resonance, it seemed to lack body. It was soundless! It was something that echoed from within me. That was why I could not place it.

Realization came flooding. It was the Jed speaking—speaking to me in the innermost depths of my own brain—communication by telepathy. Even though Tom had prepared me for just this, the actual hearing of this strange inner voice sent queer shivers tingling up and down my spine. But as I listened to the ominous message, I was overcome by a deathly dread.

The cold, inhuman voice was saying. "Visitor from an age when the earth was a place of primitive savages, not far risen from the ape, do you think to escape the all-seeing, the all-knowing Jed? Once before a denizen of your times appeared among us. He was treated courteously, though he was a Primitive, but he chose to involve himself in Karet's puny revolt. Karet is dead, and so are most of his dupes. Some few eluded me in the Wood where Time and Space are warped. The Primitive was among them.

"Now you and another appear. You have

aided and attempted to protect the fugitive Robots from my just wrath. You have killed a Master with a toy. You have slain a Robot at the gate of the City of the Mothers."

The cold voice grew inexorable. "You have achieved the distinction of arousing my anger. I shall crush you like a loathsome insect. Even as you are able to hear my commands, I am watching you, who deem yourself secure in your hiding place. I read your thoughts as easily as you hear mine. *I know exactly where you are!*"

A cold sweat burst from my pores, while the Mother stared at me affrighted. I ran toward the other end of the room, panic-stricken, seeking an outlet, somewhere to hide from the infinite brain that was Jed.

Once more the cold tones, faintly tinged with mockery, echoed within me. I paused in my aimless flight.

"I know every move you are making. It is useless for you to attempt it. There is no place on the earth, or deep within its bowels, that I cannot follow and pluck you out. Even now my guard is hurrying to your place of concealment, to seize and bring you before me. It shall go hard with you then.

"Yet, because I am merciful, because you are a poor blind primitive whose mind is still groping childishly, I shall grant you a last chance. Come out into the open, before the guard reaches you, give yourself up voluntarily, and I shall graciously permit you and your comrade to depart in the Wood to your own time. But the rebellious Robots and the earth-man from Neptune must be delivered over to me. I have spoken!"

Jed Defied

MY knees were wobbly as the dread tones ceased their strange echoing within me. The woman had seized my arm, was urging me with passionate whispers.

"Quickly, give yourself up before they come. The Jed will do as he says. He does not break his word. You will be killed otherwise."

In this hour of danger I was sorely tempted to heed her, to abandon this quixotic at-

tempt to be a participant in a world and time not my own, that should not exist for me except as an unimaginable future. My own familiar world, the accustomed sights and sounds were suddenly overpoweringly dear across the wide waste of time. No doubt I had succumbed, issued forth to surrender myself, had not the Jed seen fit to tuck on conditions.

I thought of Charlie, the poor Robot accidentally encumbered with intelligence, the others of his group, more vague in my memory, and then came the vision of that noble earthman and all his fellows, doomed to die here and on the Neptune that wished no more of them. All this would happen because of wretched fear for my own safety. I knew instinctively the right course to adopt, but as you may have remarked by this time, I am by nature not exactly brave, so I hesitated.

The beautiful woman was in a frenzy of alarm. She was scanning my features, stupid in their indecision. Very likely she sensed the struggle taking place within me. There was anguish in her tones.

"Stranger from another time, obey the Jed and save yourself. You cannot hope to defy his might. Go back to your own fair world and live the happiness denied to me." A sob interrupted. "It is I—Eona, who beg you. I would not see you die!"

The passion, the pleading of the lovely girl decided me. My path was clear. Yet strangely enough, the appeal of this flushed goddess, had forced a decision on me directly contrary to what she had desired.

I would not leave the others to a horrible fate. I could not leave Eona (how liquid it was on my tongue). I must chance the wrath of Jed. I would fight on to the last breath. Which grandiloquent effusions I promptly translated into suitable words.

"No," I said, striking an attitude. "I cannot, shall not, surrender to the Jed. I cannot give up those who have become my comrades, I cannot leave this far time to groan under his tyranny. I shall fight him, if necessary, single handed."

At this late date, I blush to record this bombast, so foreign to my timid nature, but

I doubtless had fallen a victim at the time of a species of auto-hypnosis, and—the spell of bright, approving eyes. For, in spite of Eona's concern, I detected a gleam of admiration. And that would have been sufficient to have changed a rabbit into a raging lion.

But even as I spoke, I was afraid, desperately so. Already I heard in my heated imagination the stealthy approach of the guard. And so I changed my tune abruptly. "However, I must hide from them. Is there no place?"

The Mother shook her head vehemently. "There is a passage which leads down to the bottom of the tower. But what good is it? The Jed can read your thoughts wherever you are, and so compel you to disclose your hiding place."

Then it came upon me in a blinding flash. I struck myself on the forehead.

"Fool, stupid fool that I am. No wonder Sid always insisted I was not quite bright. To think that I almost let myself be taken in by a clever dodge."

Eona stared at me uncomprehendingly. "I do not understand you, but I know that if you do not hurry to do something soon, it will be too late."

"Not at all," I said calmly, unhurriedly, masking the intense quivering relief within. Then I explained. "You see I had completely forgotten until your chance remark that I was wearing this." I tapped the thin gold circlet on my head. In a few words I explained its function. "So you see," I continued, "the Jed couldn't possibly know where I am by reading my thoughts.

"But I have to hand it to him for infernal cleverness. He knew I was about, that the thoughts he willed could reach me. The vibrations of his mind having a different frequency from the tuned blanketing of the thought-shield, have no difficulty in penetrating the protecting radiations. He tried to scare me into giving myself up, and I must admit, he almost did. That was why he pretended to have become suddenly afflicted with a strain of mercy."

I shook my fist vaguely. "You are clever, Jed, but I, Ned Dunn, am just a bit too much for you."

VAINGLORY goeth before a fall. Hardly had I uttered this silliness, when the sound of many feet outside in the rotunda brought me to my senses.

Eona grabbed me by the arm. "The guard of Jed—they are coming for you. He has heard!" Then without giving me a chance to say anything, she almost pulled me along toward the rear of the room, immediately behind the fountain. In frantic haste she pressed button after button on a panel set in the wall, until a section slid silently open, disclosing a gaping black hole.

"Quick, in there," she fairly screamed, "it leads down underneath the tower, out beyond the walls." She snatched up a handful of white pellets from a crystal dish at the fountain edge. "Here, take these. They are food," and she fairly shoved me into the opening.

I resisted. "But what about you, Eona. They'll kill you for hiding me."

"Do not fear. I am a Mother—and too precious to be harmed." There was bitterness in the suppressed tone.

I was going to argue further, but hands were on the outer door, it was opening. I just had time to tumble in, when the panel slid over me, blotting out the light and the sound of the approaching guard.

It was pitch black. I was groping cautiously about to find a wall, so as to guide my footsteps down what I assumed to be a flight of stairs, when without warning I felt myself precipitated into an abyss. Vision of a dizzy fall, the ultimate crash far below, flashed across my agony, when, to my utter surprise, I found myself cushioned in my headlong flight, and then I sank slowly and comfortably, down, down to an infinite depth.

When I finally came to a gentle stop, and felt the substantial ground beneath me, I arose hastily from the recumbent position in which I had been deposited, and took note of my surroundings.

I was in a darkened chamber, palely lit by a patch of brightness from the farther end of a tunnel. I made my way cautiously through the narrow aperture, until the patch grew larger and brighter. It was the early

morning light, and beyond was the keen fresh air and freedom.

I hastened my footsteps, delighted beyond measure to be clear once more. Some instinct halted my errant feet on the very rim.

Accordingly, I peered very cautiously out, keeping my body within the shadowed tunnel. My heart almost stopped beating. Almost directly in front of me, barely a yard away, stood a Master, his great membranous head just turned away from me, a wicked ray tube clutched tightly in his curious tentacled hand.

I ducked quickly into the saving darkness, but I had had sufficient time to note that the sky was dark with numberless aircraft, each with its Master Pilot, all converging on the City of the Mothers.

A cold sweat beaded my forehead, as I realized the significance of what I had seen. The Jed was obviously determined to ferret me out. I should have felt flattered by the unceasing attention granted me, an inconspicuous primitive from 1931 A.D. by the mighty ruler of this fantastic world of 20,000 A.D., but to my shame it must be confessed that I did not react that way at all. Rather I evinced a lamentable eagerness to sink indistinguishably back into anonymity, to be one with millions of others just like me.

There was not much time for deep thought. Too well I knew what would happen. The entire edifice would be searched, all exits blocked, every person in it subjected in turn to the piercing scrutiny of the Jed. When Eona's turn was reached, her thoughts, willy nilly, would betray me, my hiding place discovered. As for her—what would the Jed do in his wrath? I ground my teeth in impotent rage.

CHAPTER VI

The Rescue!

PRECIOUS moments were passing. I awoke to that face with a start. I retraced my steps and found myself back in the vaulted chamber into which I had fallen.

I was searching for the perpendicular

shaft, when my eye was attracted by a denser black in the dim-lit surface of the wall. I went closer.

It was the opening into another tunnel that yawned ominously before me. Where it led to, what the dangers lurking within, I had no means of telling, but I determined to chance it. Outside of this slim possibility of escape, there was no other.

With a fearful heart I entered. For what seemed endless miles I groped my way, stumbling in the palpable darkness, barking my shins on unseen obstructions. At last, when I had given up hope of ever reaching the end of this interminable tunnel, I was seized in the grip of a current of air, and swept upward.

I managed to extract my automatic from its holster as I floated helplessly in the swift current. The feel of its stubby handle was some measure of comfort, as I did not know what to expect next.

A radiance flooded me from above, and the next moment I drifted into a chamber of blank polished walls whose brightness dazzled my gloom enshrouded eyes. When I had somewhat accustomed myself to the sudden transition, I gazed curiously about me.

The room was not large, and bare of any adornment. The walls, the ceiling, the floor were all of the same strange metal, a blinding white with the shimmer of shifting quicksilver, somehow solidified.

Even as I stared, a curious fancy came over me—or was it fancy! I seemed to see the solid surfaces shift and melt before my gaze, and the whole gleamed and swayed with white metallic cloud masses. I remember I was idly wondering at the moment what Sid was doing, and the others.

As in a dream, the shifting clouds cleared, and to my astounded sight, or was I in truth dreaming, I saw before me the edge of the Vanishing Wood, illuminated in a blaze of sunshine. I stared and gasped. For a head cautiously peered out of the sheltering trees, and ducked instantly back from view. For there were hundreds of air boats, each piloted by its inevitable Master, floating motionless a short distance away, an impenetrable cordon. And at the sight of that quickly

moving target, the air was instantly a criss-cross of stabbing golden flames.

Panic seized me, for in that short instant I had recognized the head as Sid's. Wherever the deadly rays struck the ground, the foliage, the grass, the banked blooms, whiffed out of existence. Only smoldering patches of bare brown earth remained. But somehow, for what reason I did not know then, nor have any of us ever been able to discover, the lightning darts recoiled visibly from the very edge of the Wood. Not a branch, not even a leaf dancing in the breeze, was disturbed by the blazing death.

I stared and stared in unappeased eagerness, but the vision or whatever it was, slowly faded from the view, and once more the dazzling metal walls took on their solid shape and form.

I rubbed my eyes. Had I been seeing things. No, that scene had been too real, too vivid, to be the product of a disordered imagination. In my puzzlement, somehow I forgot the ever present danger of my situation.

My thoughts turned to Eona. What had happened to her?

As the thought struck me, again the solid walls seemed to dissolve, and I was staring at the huge tower of the City of the Mothers. An air boat was issuing from a great central window. It was larger than the ordinary craft, a Master was at the controls, another was seated behind him. My heart gave a great leap. For, huddled in the bottom near his hoof-like foot, helplessly bound, lay Eona, her long golden hair streaming wildly over her face. The vehicle was flying directly toward me.

WITH a shout of fury, I sprang forward, heedless of everything except that this glorious girl was captive, brought to some hideous fate because of me. My fist, that had been raised in an insane gesture, collided with hard metal with such force that my knuckles were battered and bruised.

I recoiled as the scene faded from my view, once more enclosed in blank polished walls. I looked dumbly at my bleeding hand. Then a cold rage enveloped me. If only I could lay my hands on that fiendish

brain they called the Jed, I'd smash the infernal mess into a pulp. So at least I fumed in my helplessness.

For there was no possible exit from the chamber in which I was. Only blank, gleaming walls met my fevered gaze. Even the place where I had been catapulted through was hermetically sealed, beyond all finding.

In my frantic anger, I turned to Sid and his strange comrades as my only hope. I had great faith in Sid and in that noble earth-man from Neptune. Perhaps they could rescue Eona. I was beyond fear for myself, such is the power of awakened love over an essentially timid nature.

And then, once more to my astonished view, appeared the Wood, the grim, serried craft of Masters, eternally on guard. Alas, no sign of life was stirring from within. Had they all been killed or captured? No, for then there would have been no need for the encompassing army. Had they abandoned the task as impossible, and dispersed? The Neptunian back to his planet, Sid back through the warp in time to the familiar world of 1930.

A sudden qualm of homesickness struck me. But again no, not if I knew Sid. Whatever his faults, he would not desert me, stranded among unimaginable dangers. And that cold scientist's brain would not so easily give up a problem to be solved. He was a plugger, was Sid.

The vision held. Something high up in the heavens caught my eye. It flashed diagonally across the sky, a blazing portent. A moment it seemed to pause over the Wood, then like a plummet it dropped squarely into it, vanished from sight.

I was a little sick. Was that some new weapon of the Jed's that had overcome the strange inviolability of their sanctuary, destroyed them? I strained my eyes to see, but the walls once more confronted me.

What was this uncanny television that seemed to flash the scenes my thoughts were directed to? I pondered the mystery, and slowly the probable solution grew on me. It was television. But a form undreamt-of in our present day.

My thought processes—the vibrations I

emitted (how scientific I was becoming) impinged on the strange metal of which the walls were composed. There, by some method (don't ask *me* to explain it, though long afterward when I talked it over with Sid, he went patiently into obscure scientific jargon), the vibrations activated a delicate television apparatus that automatically tuned in on the light vibrations coming from the subject of my thoughts. The picture was cast upon the metal surface acting as a screen. It may be explicable, but to me it has always remained something magical.

While I was engaged in this effort of pure scientific reasoning, and you must imagine the tremendous strain it put upon my purely reportorial abilities, another thought struck me with overwhelming force. I was going good then.

If what I had just so beautifully worked out were true, why did my thoughts impinge on the apparatus? For, you see, I was wearing the thought-shield, and according to my experience and the explanation of Arkon, no least thought vibration should escape through the barrier of its field.

Instinctively I put my hand to my head. I touched a twisted electrode, bent somewhere in my stumbling through the dark passageway.

A panic seized me. The apparatus was not working, then my thoughts must even now be an open book to the Jed. I jerked the contraption off my head, worked frantically at the damaged electrode. I managed to press it back into its old position, was lifting it in great haste to replace around my forehead, when a slight whirring noise caused me to turn.

A section of the burnished metal wall was opening, and two Masters were leaping through, ray tubes pointed directly at me. I thrust the narrow circlet into my pocket, tugged at my automatic.

The Jed Attacks

It was too late. For as my fingers tightened around the butt, one of the Masters pressed his tube. A pale blue flame shot

out, streaked across the intervening distance, hit me square in the chest.

A sensation of glacial cold cursed through my body. I stiffened in a strange paralysis, literally frozen in my tracks. I would have fallen, had not the two of them sprung forward to catch me. There was no triumph in those queer, unwinking eyes, only a cold, passionless superiority, as though I were but dirt beneath their hooved feet.

The one who had struck me down whistled, a high whine. Immediately a gigantic Robot passed through the open panel, came to a halt before the Master. His polished ebony countenance was blank, devoid of any human feeling. The weird flesh-spectacled eyes stared straight ahead, curiously set.

The Master whistled again, not quite as high-pitched as before. The Robot moved forward, seized my rigid unresisting form, slung me across a huge shoulder as though I were a child.

Even in my strange predicament, unable to move an eyelash even, a thrill of horror shot through my consciousness. The Jed had learnt his lesson in the last revolt.

There would be no more semi-intelligent Robots to fan a flame of discontent. These new creations from the chemically-treated eggs were mere automata, mindless animals, reacting like mechanical things to variations in whistled notes.

What a horrible thing the Jed had done in his cold lust for power. I tried to scream aloud and could not. He had used the accumulated wisdom of the ages to degrade the human race to these pitiful abortions. Rather than civilization should come to this, better that the earth and all its inhabitants perish.

My poor frozen body was slung on the shoulder of the Robot, flanked by the Masters, and we were on a whizzing platform that sped swiftly through winding corridors.

The platform came to a sudden stop. A wall slid silently open and warm sunlight blazed on us. Before us stretched a path bordered with gorgeous blooms, directly ahead was a mighty palace. A great gleaming blue circular structure, topped by a rose-colored dome. On the walls were mosaics of supernally beautiful scenes. Above the

arched entrance flashed a golden sun, whose gleaming rays streaked through the deep blue glaze.

We started across the parkland. I was gradually regaining the use of my limbs, but I lay quiescent just the same. There was no sense in trying to struggle now, the odds were too overwhelming.

We were half way across when something swooped down upon us from the heavens. I caught a glimpse of a shining metal globe as it catapulted directly toward our party. Instinctively the Masters threw themselves flat on the ground. The Robot however, automaton that he was, kept on moving. No one had told him to stop. With a quick wriggle I broke his grasp, dropped heavily to the turf, flattened myself. I had no desire to be smashed by this thunderbolt.

Not more than fifty feet above us, the strange craft checked its headlong flight, drifted gently to the ground. A section of the metal ball opened, and out stepped—Sid and Charlie! Then I recognized what my befuddled senses had failed to take in before. It was Arkon's space flier!

Sid gave vent to a great glad shout when he saw me, and started forward. Just then I saw one of the Masters raising himself with his ray tube pointed directly at my friend. I screamed a warning, and somehow, as though it were a live thing, the automatic in my pocket found itself in my hand, spat viciously.

The Master crumpled up in a little heap, and lay still. Sid came out of his daze. There was a tube in his hand, the one he had captured on the edge of the wood. The flame darted from its opening, just a split second before the other Master could press his weapon. There was a horrible odor of burnt flesh, and an unrecognizable mass lay quivering. Charlie, his honest face aglow with happiness, leaped at the poor dumb Robot, knocked him down in a flurry of flailing hands, caught me up and was bounding for the space ship. Sid followed on the run.

ALREADY the sky was clouded with the converging aircraft of the Masters, and

the great palace of the Jed was slowly swinging open.

Charlie was almost gibbering in fear. "Quick Master Sid," he screamed, "the Jed is appearing. We shall all be destroyed."

We half fell, half stumbled, into the sanctuary of the ship. The slide whirred shut, and instantly the flier soared swiftly up.

Through the quartz porthole I saw the palace wide open, and a great white gleaming ball suspended in the air. It was slowly whirling, and even as I gazed, an iridescence of shifting colors played over the smooth surface. The Jed! Heartsick with fear, I watched the casing of that supernal brain.

Could we get out of the range of his frightful power in time? The air boats of the Masters were scattering madly, like a swarm of frightened bees. One fellow, whose enthusiasm to attack us had brought him in too close, could not maneuver fast enough. He was caught by deadly heat emanations, and commenced to glow and melt. The next second he was hurtling in a cloud of smoke to the ground.

Within our ship it grew stifling hot. The emanations were upon us. But the noble flier accelerated to tremendous speed. It was nip and tuck. The Wood rushed into view below us, and we dropped like a plummet into it, just as we were gasping for breath.

So rapt had I been in the excitement of the chase that I had not noticed the other occupants of the flier before. Now I looked around me. At the controls was a stranger. I gazed at him in astonishment. He was an earth man, noble in bearing, his dress and demeanor like that of Arkon. I turned to Sid to question him when my eyes met another figure emerging from behind the black grinning bulk of Charlie.

"Eona!" I cried, my heart pounding away like mad. My arms flew wide, and that glorious girl just moved into them as though all her life she had known the answer.

"It is indeed I, oh Ned," her voice came musically, as I tightened my hold on her. "Your friends saved me from a terrible danger. I am so glad they rescued you too from the Jed."

I looked to Sid to thank him, but that cold-blooded individual never did have any flair for romance. He was callously beckoning me to step out of the ship. The others were already gone. With a sigh, I released Eona.

We found ourselves in the clearing immediately in front of the funnel path that led through the warp in space-time. Nestling next to us was a huge gleaming ball, another space ship, triple the size of ours. A number of the strange earth-men were scattered in the clearing.

I grabbed hold of Sid just as he was heading away to where Arkon was standing. He is just like that. Saves your life, and then forgets about you. Drops you into an inexplicable setting, and leaves you there without explanation. If you don't know what it's all about, that's your hard luck.

But this time I determined not to let him get away with it. I shook him thoroughly.

"Here you," I cried, "give me the low-down on what's happened here since I was away. Who are all those strange people who resemble Arkon, and how did they manage to get here. And how did you get hold of Eona, and know where to find me?"

He stopped with a snort of disgust. "Hey, let go. Can't you see I'm busy?"

I gripped him more firmly. "No, sir, I can't. And you'll only waste more of your precious time if you don't come across with the story."

"Very well then," he said resignedly, "if you're that kind of an ass. I'll make it snappy. After you left, Arkon and I started planning how to fight the Jed. Couldn't make much headway at it though. You see, we didn't know much about his powers, except what Tom and Charlie had told us, and there wasn't much nourishment in that.

"While we were racking our brains, Arkon heard the buzz of his radio in the ship, Wondering what it was, he hurried to tune in. The set crackled and whined in some mysterious code. His face lit up as he listened, then he spoke into the microphone, in the same incomprehensible code.

"I was bursting with curiosity. He turned to me. 'Friend, Fate itself is on our side. That message was from one of our great

space ships. A week after I departed from Neptune, the reptile people delivered an ultimatum. Six months and no more would our race be allowed to live in peace. The largest and fastest flier was armed and equipped, and with a crew of a hundred youths, despatched in haste to bring to me the fatal edict.

"Even now they are rapidly approaching Earth. I warned them of the dangers confronting us, and ordered them to land here in the Wood.' Within the hour the great ship was here."

I remembered the flashing meteor I had seen in the television chamber, and understood.

CHAPTER VII

The Volunteers!

SID continued. "I was getting worried about you. So I proposed taking the smaller ship and searching for you. Charlie insisted in coming along. Arkon gave us one of his men to navigate. While cruising about, we saw an air boat skimming the ground with a bound figure in it. Thinking it might be you, we attacked it. The Masters put up a fight, but the ship carries an atomic disintegrator that soon put them *hors de combat*.

"Judge our astonishment to discover a Mother, Eona, as the victim. We unbound her, and learned from her the story of your sudden appearance in her Chamber, and the ensuing flight.

"We were cruising hopelessly about, when we saw you being carried toward the palace of the Jed. The rest you know."

I stared at him uncomprehendingly. "But weren't you afraid the Jed would know of your plans by reading your thoughts, and destroy you?"

Sid laughed. "A fine reporter you are. Blind as a bat. Look!"

I stared at him again, and was never more ashamed in my life. For, encircling his forehead, plain for all to see, was—a thought-shield. So befuddled had I been that in all this time I had not noticed this obvious

adornment on the heads of all who were congregated there.

Sid smiled indulgently at the foolishness that must have been writ large on my face.

"The Neptunian party brought along a sufficient supply and we used them."

Then, characteristically, he dismissed what was past. "Now come along, and you and I and Arkon are going to go into a huddle. Seeing the Jed actually at work has given me an idea."

I hated to leave Eona, but her smile urged me to go, holding a subtle promise for my return. So I went with Sid.

We found Arkon engaged in earnest conversation with Charlie and a youthful Neptunian, evidently the commander of the second ship. Charlie was volubly explaining what had happened.

Arkon extended his hand to me with a grave smile. "I am happy to see you again. We had given you up as lost."

"Just the luck of a blundering reporter," I replied.

Sid favored me with a scathing glance. "Dumb luck is right. But let's get down to business. You've heard, Arkon, how the Jed almost put us out of commission?"

Arkon nodded.

"Well," Sid continued, "as nearly as I can figure it out, in the few minutes I saw him in action, that great mobile brain must be a highly charged magnetic field. As he spins himself around, the lines of force cut across the network of electric conductors in the bodies of all living beings in his path, the maze of nerve filaments. The minute currents already passing through these filaments are stepped up tremendously, the enormous surges of electric potential at extremely high frequencies are too great for the conducting tissues to carry. They become heated to incandescence in the effort, the currents seek other paths—the veins and arteries—tendons and muscles—till the entire body melts in the terrific temperature. You have seen the armatures of dynamos run at too great a speed melted into one block of metal—that is exactly the effect. It's just as simple as all that."

"Say Sid," I interjected, "I remember we ran an item in the paper not long ago about

some doctor discovering that exposing the human body to high frequency currents raised the temperature two or three degrees. He was talking about treating certain diseases that way."

"Precisely," Sid snapped, his eyes glowing. "It was my memory of that very experiment that gave me the clue."

I looked at my friend with awe. Casually, without the slightest hint of boasting, he had tossed off the explanation of the Jed's power. Arkon too had a touch of respect in his eyes.

Arkon nodded. "Very, very good, my friend. That, no doubt is the answer. But how may we avail ourselves of this knowledge to defeat the Jed?"

Sid hesitated before answering, then he spoke with a peculiar intonation. "We know his brain is a magnetic field, and he must spin to induce the rays. If we could force him to spin, indefinitely, the reservoir of his magnetism would eventually be exhausted. I see no method by which he could restore it, while spinning."

ARKON pondered that long. Finally he nodded. "I see that. But how can we force him to keep rotating interminably?"

Sid said nothin, but looked at him strangely.

Charlie, who had been listening to a conversation that we all thought way over his head, broke in eagerly. "I understand you, Master Sid. You mean that one after another should go out alone with your terrible weapons in their hands, to fight the Jed. To kill that one he must spin. Otherwise that one will kill him. As soon as the first one is dead, and the Jed thinks he is through, another one shall step forward to do battle. So the Jed must spin again. You are right, Master Sid. And I, Charlie, who am only a poor Robot and good for nothing, shall be the first to go. And all my Robot companions after me."

Again sudden shame descended on me. I had not thought of that. Sid was nodding slowly. Arkon snapped out of his amazement.

"Verily, this is a strange world to which we earth men from Neptune have come back.

First there are primitives from a time we harked back to with contempt, then degraded humans, Robots, of the present day, and both put us to shame with knowledge and understanding of which our proud race is not possessed."

Authoritatively he spoke. "You, Charlie, I thank for willingness to sacrifice yourself. But I, Arkon, cannot allow it. There are only a few of you Robots, a strange and peculiar race that must not be allowed to die out. You, Sid and Ned, are not of this time. This is not really your quarrel. But we earth men, we who must conquer the Jed to find a homeland or perish miserably in space, it is our right and duty to sacrifice, if necessary, every one of us, so that our great race may live on. I myself shall be the first to go."

The other Neptunian, whose name was Nerki, broke in with a fury of expostulation. "No, no, oh Arkon. We shall not allow you to do this. Who then shall lead the Earthlings back to their homeland? A thousand times no! But we, mere ordinary persons, whose lives are of no particular value to the race, shall sacrifice ourselves that Earth shall once more be a haven and a refuge."

A light of exaltation shone in the youthful eyes. Sid and I added our pleadings to that of Nerki until Arkon was forced reluctantly to consent. Only Charlie sulked at his proffer being rejected.

With a glad shout Nerki sped to tell the news to his comrades. We saw him gesticulating eagerly, heard a gathering murmur that rose to a triumphant roar from the serried ranks. As one they turned and raced toward us, formed in solid mass before Arkon, their leader.

Nerki stepped forward. His voice rang out exultantly. "Oh Arkon, they have heard, and they are prepared!"

Arkon gazed at the noble band sadly, a twinge of pain in his fine eyes.

"Faithful loyal comrades. Heed well before you bind yourselves irrevocably. It is certain death for all of you."

As one came the mighty response. "We are prepared."

A quiver of emotion darted through me

as I gazed at the glowing faces, the light of high resolve in the eyes of these devoted youths. An insensate desire to join them in their mad sacrifice impelled me almost to shout aloud. Instead I murmured to myself. "*Morituri te salutamus!*"*

Even Sid's eyes flamed as though a vibrating cord had been struck in his unemotional breast. Arkon stood there, his face a mask that hid all emotion. Then sadly, wearily, he spoke. "Very well then, be it as you wish. You are about to die the noblest of deaths, for the benefit of mankind. Through all the ages, your unexampled sacrifice shall ring out clear and heartening. Who shall be the first to go?"

The Power of Jed

AS one the hundred stepped forward. But Nerkis raised his voice. "As commander of the expedition, I claim the honor for myself, oh Arkon."

A twinge passed like a shadow over Arkon's face. Nerkis was dear to him. "The post is yours," he said simply.

"Just a moment," Sid interposed. "First we must clear away the Masters who no doubt are once more guarding the Wood. Let every man take his portable disintegrator, and also his thought-shield. The Jed must not be able to discover our plan. It may be, if it were unwarily disclosed, he could find means to forestall it."

"You are always right," Arkon responded gravely. "Do as you have been told, earthmen of Neptune."

The youths hastened to the great ship to obtain their weapons and shields. In a trice they were back as though they begrudged a moment from gazing on the bright face of death.

The march to the edge of the wood was on. We soon came to the end of our strange safety zone. I peered out cautiously. Thousands of Masters hovered in their air boats like wasps about to sting. The palace of the Jed was open, the great white quartz ball that housed the brain hung motionless

in the sunlight. He was ready, had anticipated that we would move against him.

Our band was carefully distributed, hidden from view. A low command from Arkon, and each disintegrator was brought to the ready. Another command, and long slithers of golden flame darted out. They caught the foremost rank of the guards, and before my very eyes, that rank was gone, whiffed clean out of existence by the deadly rays. Again the flames sprang forth, and the second line disappeared from sight.

Panic seized the Masters at the invisible, deadly execution. Haphazardly they flashed their ray tubes, but the distance was too great for them to be effective. Another blast of pouring death and the Masters broke in wild confusion. They were cowardly, too long accustomed to depend upon the might of the Jed. Like wounded birds they fled from the scene of disaster. In an incredibly short time the great park was clear, except for the sinister, ominously motionless globe of the Jed.

Arkon turned to Nerkis, fidgeting impatiently at his side. "It is time," was all he said, but there was a world of sorrow in his tone.

Silently we all shook hands with the dauntless youth, who was going to his death. But there was no fear in his clear eyes, only the great exaltation of a martyr who sees Paradise ahead of him.

He walked boldly out of the protection of the Wood, disintegrator ready. We watched him go. When he cleared the trees, he started to run, straight for the Jed.

The glistening ball began to spin, slowly at first, then faster, ever faster. The sky darkened. Weird purple streamers of light wavered and danced across the heaven. A great wind sprang up that swept howling over the parkland. The very sun dimmed to a blood red sphere, paled, and was blotted out.

Only the white globe of the Jed shown in the gathering gloom, spinning around and around. The white took on a tinge of purple, iridescent colors played and melted on the revolving surface. Faster and faster he whirled around, until the myriad colors merged into one continuous blur.

*We who are soon to die salute thee.

Chill fear gripped my heart with an icy clutch. Something terrible was going to happen. Had we rightly gauged the dread might of the Jed? Without knowing what I did, I screamed to Nerkis to turn back, to give up this mad venture. But the dauntless youth kept on running at top speed, trying desperately to get within firing range of the foe.

Suddenly the Jed blurred, disappeared. It became pitchy dark. Strain our eyes as we would, we could see nothing through the impenetrable black. Nerkis was gone, swallowed up.

But no, there he was again. A hundred eager voices shouted the news jubilantly. The exultation was short lived, however. A great cry of incredulous horror arose from us all. For Nerkis had been caught in his headlong pace, frozen into a straining statue, poised for the next leap. His tall lithe body was glowing softly, a weird phosphorescence on the shrouded earth.

Then before our helpless sight, we saw the glow turn cherry red, a blazing translucence against the pitchy darkness. Tom's awe-struck words flashed back across my consciousness—"They looked like ghosts, red ghosts—" The phantom-like body of Nerkis began to sag, melt at the edges. Across the expanse of the meadow I could feel the heat radiated from him. Then he ran together, into a shapeless shining mass, for all the world like a molten puddle of metal.

SHRIEKS of execration burst from us at the ghastly sight. We shook our fists in utter fury, and would have rushed from the shelter of the Wood had not the cooler heads of Sid and Arkon restrained our thirst for vengeance. So instead we waited, gritting our teeth.

Nerkis, all that remained of him, was just a blotch on the scorched, blackened earth. Suddenly the sinister Jed appeared, whirling still. From deepest violet back to gleaming white the iridescence ran, while the speed of his spinning slowly slackened. I could almost feel the sneering triumph of that brain.

The globe came to a halt, hung motionless.

Arkun spoke, his voice almost inaudible. "The next man goes now, and may the Eternal have mercy on his soul."

A gallant youngster sprang out of the Wood like an unleashed hound. Right bravely he went to his rendezvous with death! Straight for the Jed he headed. The great brain case quivered, commenced turning, slowly.

A nausea seized me, I averted my gaze from the terrible doom that was overtaking the lad. I dared not look until once more I heard the choked voice of Arkun repeat the infinite pathos of the formula. "The next man goes now, and may the Eternal have mercy on your soul."

Once again the dread drama was enacted, and again—and again—until I must have swooned out of sheer pity. When I awoke, it was to see the world gradually brightening again, and the Jed slowing to a motionless. But that white was not the gleaming purity with which I had been first dazzled. It was a drab, dirty gray, it seemed a *tired* color.

I heard the sound of voices in argument. I looked weakly around. The noble company of Neptunians was gone, vanished. Over on the battered, smoking plain lay countless little heaps that once were men. But there were two who were but half melted as though the power of the Jed had been unequal to the complete task. I shuddered uncontrollably.

Charlie was gesticulating violently, apparently in heated argument. Arkun was answering him, slowly, gravely.

"No, Charlie, it is but meet that I shall follow my brave comrades to their doom. My race will live on if I should perish, and some day repopulate this fair earth, but there are only a handful of you Robots, and you must not be permitted to die."

The black's honest face was shining with the intensity of his earnestness. He was about to retort when a Robot flashed by, out of the Wood, into the death area, before any one could stop him.

Charlie made as if to rush after him, but Arkun laid a restraining hand upon him.

There was a sad smile on his gentle countenance. "While you and I have been arguing, your comrade has devoted himself to his destruction."

The giant Robot was literally flying over the ground. Once more the Jed commenced his interminable spinning. But the dirty white did not quite run through the gamut of colors to the fatal violet. The globe wobbled a bit as though it were mortally tired.

The brave black was almost directly beneath the Jed, his disintegrator was raised, before he was caught. Then he too, went the way of the others. But it was a long struggle, and when he finally fell, he was charred and smoking, but still a recognizable human form.

At no time had the Jed disappeared. Very slowly he returned to a russet gray quiescence, and the great quartz sphere wobbled drunkenly, overcome with fatigue.

Arkon spoke, quietly, but with a ring of steel to his voice. "It is now my turn to go, and let no man say me nay!"

With that, very steadily he walked out of the Wood. Charlie gave vent to a short cry, and darted after him. Sid was at my side, his eyes shining with a blaze I had never seen in them before. He looked at me queerly. "By Jove, it's gotten me too." And with that he, too, was out in the arena of death.

The End of the Jed

I SHOUTED to the fool to come back, but he ploughed on, unheeding. Something snapped within me. I couldn't let the silly ass go alone to his fate like that, and the next minute I was chasing after.

A shrill scream of despair sounded behind me. I whirled to see Eona running and stumbling. "Ned, Ned, if you go, I go too."

I seized her rather roughly, urged her to go back.

"No," she moaned, "you will die, and I cannot bear to live then."

"But you must, you are too precious, too wonderful to die."

But all she answered was: "Wherever you go, I go too."

In despair I looked about wildly. My eye caught sight of a Robot gazing out of the Wood. I beckoned, and he came. I nodded significantly, and to my great joy, he understood. He picked up Eona with his four huge arms as easily as if she were a child, and carried her, struggling and kicking, back to the safety of the Wood.

Relieved in mind, though saddened at the thought that this might prove an eternal farewell, I hastened after the others.

Already the Jed was turning, but with painful slowness. He was teetering violently. The reservoir of magnetism was fast being exhausted. The sky darkened, but only slightly.

"Hello," cried Sid, "I believe he's almost reached the end of his rope. Maybe if we rush him fast, we can get within firing range before he is able to work up full power. Come on."

We ran faster than we've ever run before, shouting to the others to follow. Charlie broke into a trot, but Arkon kept up his dignified, even walk. He would go to death grandly, nobly.

The ground flew beneath our feet. One hundred yards, two hundred—the heat was growing fearfully intense.

Three hundred yards, and the perspiration oozed from every pore. The Jed was spinning faster now.

Four hundred yards, and our hair, our clothes, were scorching from the terrific heat. We were gasping for breath, the ground was smoking underneath, great blisters rose on our fevered skins. The dense fuming air was literally a solid wall at which we threw ourselves. Just a hundred yards before your weapons could become effective! But still we drove on.

I was somewhat delirious. I staggered and fell, arose and stumbled further. My brain was a mass of fire, but one fixed idea, almost insane in its intensity, beat and hammered within. "A few more steps and you've got him—you've got him—you've got him!"

The sky was quite dark now, the Jed was approaching the dreaded purple hue. The ground rose and heaved drunkenly beneath me, the fiery torment penetrated to my very

vitals, I was losing consciousness, when dimly, a far off voice seemed to whisper, "Let him have it now. Give him hell."

With a great effort, I managed to open my heat seared eyes, saw a dim shape close by me, pointing an atomic disintegrator at something aloft. It was Sid!

How I did it, I don't know, but a weapon was in my hand and I pressed it. Two long flames leaped like live things through the swirl of steam, caught the violet-tinged spinning sphere squarely.

The bright threads of fire flickered over the surface, slid harmlessly aside. The Jed was winning! As in a horrible dream I heard Sid's desperate tones. "Keep on shooting for him, Ned. His magnetic field is shunting off the rays. But it can't last forever. We've got to wear him down before he gets us!"

Still in a dream, I keep the tube flicking out its stream of death. I felt rather than saw, Charlie and Arkon. Four rays darted interminably, playing and crackling over the quartz surface.

The ground heaved up to me. I swayed dizzily in the awful heat.

Suddenly I heard a voice within me, the strange voice of the Jed, passionless, cold as ever.

"Strangers from an earlier day, you have conquered. The great Jed is defeated. My store of power is exhausted, soon your rays will not be diverted, and then—. But I shall not grant you the boast of having destroyed me. I myself shall will my own departure. This earth shall never see my equal again. Farewell!"

The great quartz globe swelled and strained, and the next instant shattered from within into a million tiny bits. The Jed had cheated us at the very last. Our avenging weapons were raised futilely in our hands. The end of the great dominant brain had come by his own will!

ALMOST immediately the infernal heat relaxed its grip. Once more the world was bright and vivid, no longer a place of torment.

We four stared at each other's blackened, smoking carcasses, and laughed insanely. I swayed and would have fallen, had not Eona come stumbling for me, catching me in her arms just as I was almost down. The last I remembered was the cool feel of her soft flesh on my blistered skin, the sweet endearments she lavished on me.

They tell me I was delirious for days, that it was only the devoted unremitting nursing of Eona that pulled me through. I can well believe it.

When I finally came out of it, weak but whole again, I found that the others had decided on their course of action.

Arkon was leaving for Neptune in the one-man flier, to organize and bring back the earth-men to their rightful home. Charlie was to remain in temporary command with his Robots over the world. I had forgotten to state that the cowardly Masters, aghast at the death of the invulnerable Jed, had abjectly crawled to make their peace.

Sid said, "Well, old man, it's time we're going back to New York, A.D. 1932. I've a batch of rather important experiments waiting for me." That is Sid all over.

But I—what could I say? Naturally I was homesick for the familiar sights and sounds of our own time, but—there was Eona! I could not, would not leave her.

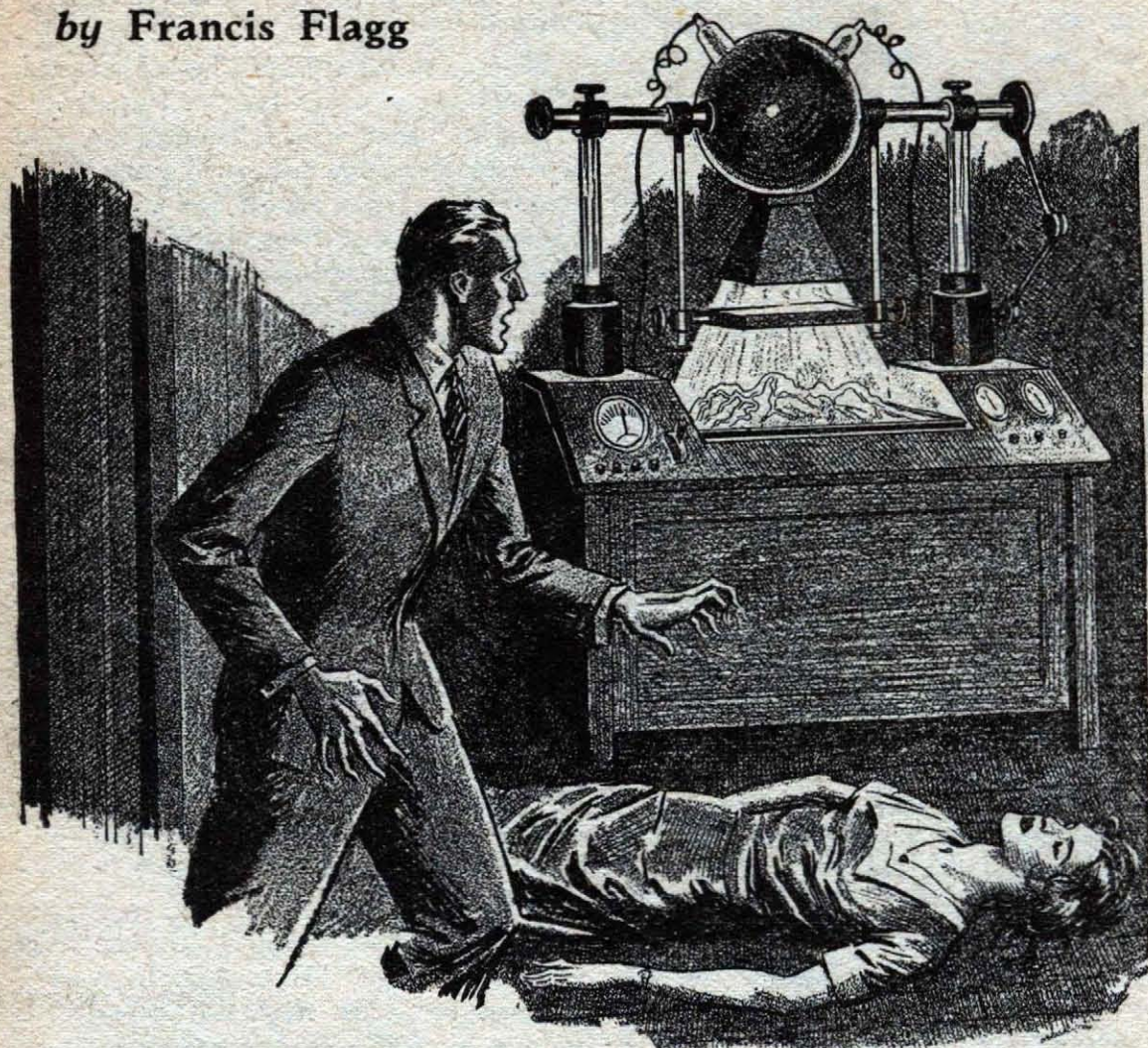
Eona saw the distress in my eyes. "Why of course you're returning, Ned, and I am going with you. I know now that your time is what I have been longing for all these years—your time, and you in it." And so it came to pass.

THE END

See page 1119 for announcement of the first "Interplanetary Number"
Winter 1931 Wonder Stories Quarterly

The Synthetic Monster

by Francis Flagg



**He carried with him the horrible secret for months
—and then in a moment of forgetfulness . . .**

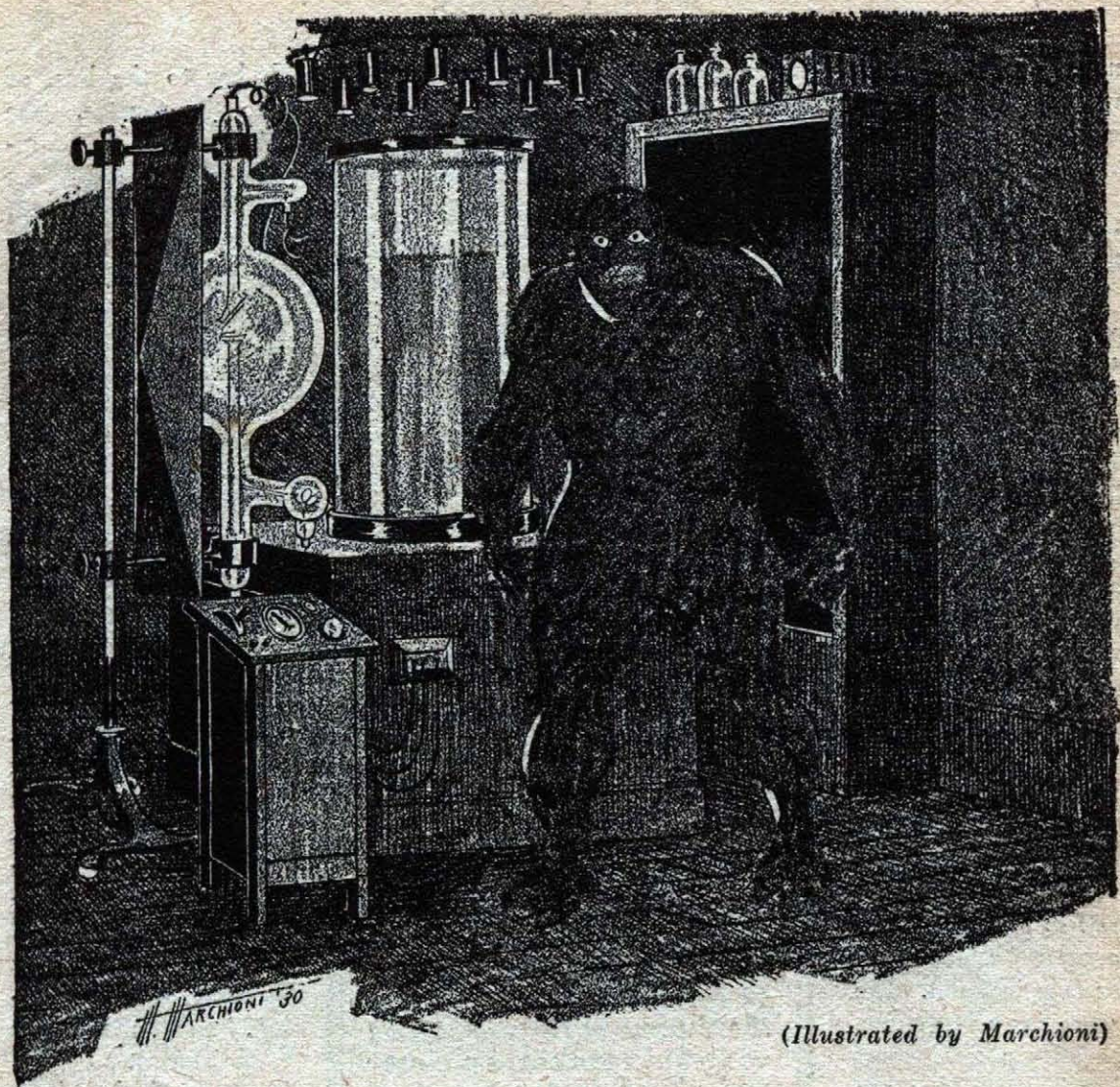
DOCTOR Jacobs is dead. He came to his death in a most horrible and tragic fashion. But he was not killed by an abnormal human being as the police and coroner's report would indicate. No, the thing that killed Doctor Jacobs was not human. It was . . .

But let me go back to the beginning of it all so that you may the better understand just what it was that killed Doctor Jacobs. The story is an incredible one; and yet in support of what I tell you there is the evidence of my experience, Mrs. Reynolds'

testimony, and above all the weight of Doctor Jacobs' own diary.

As every one knows I came to Tucson for my health. Years of working in the chemical department of a great research establishment in New Jersey had affected my lungs. I lived out in the desert, went naked in the sun, had a negro lad to do my cooking, and so within eighteen months had won back some measure of health.

My doctor pronounced me an "arrested case," but told me it would be foolhardy to think of returning east too soon. "You



(Illustrated by Marchioni)

Through the gloom, I saw something looming, something monstrous, menacing . . . I hurled myself at this figure . . .

need a few more years of this dry atmosphere for a perfect cure," he said. I took his advice.

Truth to tell, I had fallen in love with the desert and thought seriously of making Tucson my permanent home. But the few savings I had were being rapidly depleted, and it was imperative that I should find some means of subsistence. In this predicament I wrote about my financial difficulties to the director of the research establishment back east with whom I had kept up a somewhat desultory correspondence and was overjoyed to receive his prompt answer.

"Your letter," he wrote, "came at an opportune moment. Our organization has

just been in receipt of a communication from Doctor Jacobs the physicist, who also resides in Tucson, asking our help in finding a competent chemist for some routine work he wishes done. I do not know whether you have ever heard of Doctor Jacobs or not; perhaps he was before your time; but years ago he held the chair of physics at Yale and was accounted a brilliant, though somewhat erratic scientist.

"However, owing to the ridicule and bitter controversy his wild theories aroused among his fellow professors and in the scientific world in general, he resigned his chair at New Haven and dropped from sight. You will probably find him an eccentric,

and very queer. But he offers a good salary and the work is in your line. I have written him, warmly recommending you, and enclosed find a note of introduction."

Needless to say, I lost no time in approaching Doctor Jacobs. He was an elderly man, his great height offset by the decided stoop of narrow shoulders. In ap-

pearance he was not attractive, having a sharp, feral face reminiscent of a fox, an effect heightened by the brush of reddish-grey hair which swept back from a high, sloping forehead. The work he required was of a private nature in the laboratories of his home on Speedway. The big house sat within low stone walls, in untidy lawns burnt out and gone to seed.

A tangle of bushes grew in the rear of the house, and a giant pepper tree in front. The house was a large one, but only a few rooms were in actual use, the rest being shut away. My own bedroom, on the second floor and across the corridor from the Doctor's, was big and cheerless. Mrs. Reynolds tried brightening it for me with a few cretonne hangings and knick-knacks.

At first I paid little attention to Mrs. Reynolds. She did not sleep on the premises but came to work every morning at eight and left for her own home after the evening meal. But as the weeks and months passed her quiet charm and well-bred poise grew on me. However, this is not a story of my romance with Mrs. Reynolds.

Suffice it to say that I soon grew in the

habit of walking with her to the bus, of offering to take her to the theatre. She told me that her husband had died of tuberculosis. Occasionally she accepted my invitations, but our real intimacy did not develop until after the terrible and uncanny occurrences I am going to relate.

THE true test of a "wonder" story is the answer to the question, "Despite the strangeness of this yarn, does it seem realistic, does it have the touch of truth about it?"

In the stories of Francis Flagg, the answer is inevitably "yes", for our author has the undoubted ability to convince us even against our will that the strange things that he describes so well could really happen.

We are getting too close to the production of protoplasm in our laboratories to scoff at it any more. From both America and Mexico, at the time of this writing, there come authentic stories of technicians coming closer and closer to the secret of "what is organic life." We cannot of course tell what the learning of this secret may mean to us. It may not mean that we can produce living things of a high complexity such as man, but it will mean, in any case, that our prosy world will be disturbed in a manner suggested by Mr. Flagg, as it never has been before!

I quickly discovered that by nature and training Doctor Jacobs was a quiet, secretive man. He spoke little and had no friends that I could see. But this jibed with my own temperament. Perhaps I had better make it plain that I am not of an inquisitive or inquiring turn of mind. Though I had spent years of my life in a chemical laboratory, I had not the least interest in chemistry, accepting my job and profession merely as means of making a living. In the research establishment I had been one of a half hundred other routine men who received orders, compounded chemicals, without bothering as to the meaning of it all.

But I am a conscientious routine man, and a conscientious routine man was what Doctor Jacobs wanted. I mixed his prescriptions according to for-

mulae, noted the results, and passed the information (with the compounds) along to him. The work was light and the hours far from arduous. Generally I was through at one o'clock, and the doctor at that hour taking over the laboratory and dismissing me.

Once I noticed him regarding me curi-

ously. I think now that he was hungry to confide in some one, that if I had shown more interest, more scientific curiosity, he would have unburdened himself of his plans and intentions.

"Do you never wonder what the purpose may be of all those experiments I have you make?" he asked. I shook my head with a smile.

"None," I answered. "That is your business, sir." He made no reply at the time, but one day he called me into his private laboratory and workshop, a place I had hitherto never entered, situated on the second floor, and pointed at a strange machine which stood in the center of the room. "What do you think of that, Edwards?" he queried

I examined the mechanism perfunctorily. It appeared to be a haphazard arrangement of crystal and glass tubes, electrodes, a carbon-arc device, and a container full of dark, metallic fluid with a slightly yellow tinge.

"That fluid," said Doctor Jacobs quietly, "is the result of all your labors." Then he turned from the machine and drew attention to what appeared to be a viscous mass of jelly lying on a white-topped table. "And that," he said. "Ah, if you knew what that was! And if the stupid dolts who ridiculed my theories knew!"

He spoke the last sentence with concentrated passion and seized me by the shoulder. It was the first time I had ever observed him show much emotion. Perhaps if I had responded to that emotion with some display of eagerness he would have confided in me there and then. But truth to tell the thought ran through my mind that he was a harmless old eccentric, a crank, and perhaps the thought registered on my face.

At any rate, as if ashamed of his excitement he dropped his hand and in his nor-

mal voice said: "You might get after that Number Three Formula, Edwards, I'll be needing quite a quantity of it."

I waited a moment after his palpable dismissal, but the opportunity of winning the doctor's confidence had passed never to present itself again. Though I worked with him day after day, sometimes under his personal direction, and always with him tramping in and out of the laboratory, we were as much strangers to one another as on the day I entered his employ. I believe that in some obscure fashion he despised me for my lack of scientific initiative. However that may be, his one outburst was his last, and I never saw the inside of his private laboratory again until . . .



FRANCIS FLAGG

A Gruesome Sight!

IT was a cold and rainy evening in December. I had seen Mrs. Reynolds as far as the bus. Returning, I let myself in at the front entrance and walked up the wide staircase. I made no particular effort to be silent. I was thinking, to be exact, of Laura, Mrs. Reynolds, of how sweet and desirable her face had looked smiling at me from the bus window before the vehicle whirled her away. The rain had dampened her hair—she wore no hat—and the wind had whipped a glowing color into her usually pale cheeks.

It came over me with a wave of self-pity that I was returning to a cheerless, womanless habitat. Why, I wondered, had I lacked the courage to accompany her all the way home? Perhaps she would have invited me in; I would have met her sister and the little niece she often mentioned. There might have been an hour or two of delightful talk, an hour or two of watching the vivid emotions coming and going on her lovely face; while her eyes, forget-me-not blue, now and then met my own.

Immersed in such thought, I say, I

climbed the stairs and stepped onto the upper landing. It was in darkness save for a stream of light which came from the half-open door of Doctor Jacobs' private laboratory. Passing the door, I glanced in. The Doctor was standing with his back towards me, bending over a long, low table. Outside the wind was beating the branches of the pepper tree against the house with a great deal of force. Doctor Jacobs neither saw nor heard me. I knew that he was growing quite deaf, and the noise of the wind and the tree was certainly loud enough to cover the sound of my approach to even keener ears.

I glanced in, I say, and saw the machine mentioned once before standing to one side of the room. I saw the tables littered with all kinds of laboratory paraphernalia. I saw the doctor as I have described. But it was not the sight of these things which brought me to an abrupt stop, staring with open mouth. No, it was the sight of the body lying on the table over which the doctor bent, and which with long gleaming surgical knives he was busy carving and mutilating.

It was only a moment that I stood, glaring, then as the doctor straightened and made to turn, I fled along the passage to my own room. Good God, I asked myself, what could it mean? For while the body had been too mutilated for me to grasp but the vaguest concept of its outlines, there could be no mistaking the nature of the clear, pink skin which covered its dissevered portions. The doctor had been cutting and slicing flesh—human flesh!

I will not attempt to describe my chaotic emotions. The man is mad, I told myself, stark, staring mad; he has murdered someone. If this first thought of mine sounds somewhat bizarre, you must recollect that from the moment of entering the doctor's employ I had thought him a little "touched." But as my first horror subsided I began to think more sanely.

What I had seen was the doctor dissecting a corpse—a dead body he had probably obtained from some graveyard or poor-house. Such cadavers could be obtained, I knew, though with some trouble. But why

was the doctor dissecting and how had he managed to smuggle the body into the house? The latter part of the question was easy to answer. Mrs. Reynolds often went away for two hours in the afternoon, and I myself generally took long walks. But it was gruesome to think of the body of some poor devil being carved into pieces next door to where one slept. The sight of those gleaming surgical knives had made my flesh creep, filled me with a species of loathing.

The impulse did come to seek the doctor, tell him what I had seen, and ask for an explanation. If I only had! But the truth is I am by nature a timid person. Not a coward, exactly. A coward would not have rushed to Mrs. Reynolds' rescue on that last fatal evening. But certainly I lacked determination and initiative. At any rate, I put off interviewing the doctor that night, and when I met him in the morning he was his quiet, secretive self; so much so that every time I opened my mouth, I lacked the courage to proceed.

"What is it, Edwards?" he demanded once, rather irritably, the impatience showing, not in his voice, but in the way he lifted his brows. If he had displayed any emotion out of the ordinary, acted in any singular fashion, I believe I should have blurted out what I wanted to say. But as it was, what business of mine could it be if he chose to dissect a body? Doubtless the dissecting had something to do with the experiments he was engaged in. Better keep still and not risk losing a perfectly congenial job and employer by unwanted inquisitiveness.

So I reasoned; and so to my everlasting regret I acted—or failed to act. I believe now that if I had approached the doctor, questioned him, that he would have taken me into his confidence, and that the knowledge so gained might have been the means of saving him from a hideous fate, and Mrs. Reynolds from an experience that almost unseated her reason. However, it is too late to speculate on that now. Talking to Mrs. Reynolds the next evening, I mentioned what I had seen the previous night.

"But indeed, Mr. Edwards, you must be mistaken," she exclaimed.

"No," I said, "it was human flesh."

"But how could that be? The doctor called me to clean up for him in his laboratory this morning—he does that about once or twice a month—and the knives you mention were lying on the table dirty, and the table itself I cleaned. I saw nothing of any body. Besides if you saw what you say you did there would be blood on the knives and table, would there not? But there wasn't."

"I suppose so," I said, wondering if by any manner of means or trick of lighting my eyes could have played me false. "Really, I never dissected a dead body so I can't say. Did you clean the sink closet too?"

"Yes."

"And there was nothing to excite your curiosity?"

"Only some sticky and jelly-like substance on the table and adhering to the knives with a peculiarly bad smell. There was a lot of it in the sink. I turned up my nose at it and Doctor Jacobs laughed."

"Which is more than he ever does for me," I bantered, changing the subject.

Shadows in the Night

THE thing was a mystery. I gave it up and had almost forgotten the incident when a still more uncanny occurrence threw my mind into a turmoil. About a month after that I have related, on a clear, sunny afternoon, I was returning from a walk and about to enter the house, when glancing up at the upper hall window immediately over the front doorway, I was frozen in my tracks by seeing the face of something dreadful staring down at me.

I cannot describe that face. I saw it but momentarily. But it was flat and white and hairless, with a wide, protruding, sucker-like mouth—that was the impression—which writhed and glued itself to the window-glass and made blubbering noises. I did not hear those noises; but have you never seen objects which you instinctively connect with and change into sound? For perhaps twenty seconds this nightmare countenance glared into my own; then with a jerk it was gone, and released from the

spell which had rooted me to the spot, I staggered around to the back door and made my way into the kitchen. Mrs. Reynolds looked at me with concern. "Why, what is the matter?" she asked in alarm. I did not mention the cause of my condition. I had no wish to frighten her needlessly. "The heat," I murmured.

"But it isn't hot today; it's quite cold."

I cursed myself for a fool.

"Just a dizzy spell," I said as calmly as I could. "Perhaps a drink of water"

But she made me sit down and sip a cup of hot coffee that she hastily brewed. The color came back into my face; the beverage imparted some courage to my heart. Finally, I summoned enough resolution to climb the steps to my room.

Nothing was in the upper hallway. I met the doctor descending the steps. He looked at me sharply. There seemed to be a suppressed excitement in his manner. Or perhaps that was only my imagination; I couldn't decide. I sat on the edge of the bed and wondered if I could really be losing my mind. First there was the matter of the doctor carving human flesh, and now this. Could my eyes be playing me tricks? But my eyes had never given me any bother; I had, in fact, always enjoyed excellent sight. No, I felt sure that I couldn't lay the blame on my eyes. But still there was the face I had seen.

Ghosts! Was the place haunted?

I laughed at the idea. I did not believe in ghosts. And anyway ghosts could not harm me. It was creatures of flesh and blood that frightened me—or so I told myself. Yet passing down the darkening corridor and staircase to my dinner I was conscious of that prickling sensation which runs over the skin and the scalp when one is in a nervous and jumpy mood. At the table, I came almost near questioning the doctor—almost, not quite.

"I must be seeing things," I said with a nervous laugh. He raised his head with a jerk and stared at me from under forbidding brows. "Faces," I said, watching him closely for the effect of my words. "Flat, eyeless faces with mouths." But his expression did not alter.

"Indigestion," he said brusquely. "Something doesn't agree with you. Better watch your diet."

Two nights later I awoke to hear something in my room. The night being close I had foolishly left my door open to create a circuit of fresh air from the window.

"What's that?" I called sharply. There was no answer; but I heard the slithering sound of something being shuffled, not lifted, along the floor. Leaping from bed, I fumbled for the light-switch, losing precious seconds in my frightened haste, while the sound of slithering retreated rapidly.

At last I found the switch, turned on the lights, and ran into the hall. The hall, of course, was in darkness, the light streaming from my doorway only partially dispelling the gloom. The sudden radiance had also dazzled my vision. Yet I thought that I saw something gliding into the doctor's private laboratory, the door of which was ajar.

Even as I sprang forward with a shout, the doctor's bedroom door opened and he came out in his pajamas, the electric light back of him framing his tall, stopped figure and chasing the shadows from that end of the hall. His face, however, was veiled in obscurity.

"What's the matter, Edwards?" he demanded excitedly. "Why are you chasing about at this hour?"

"Something," I said, "was in my room."

"Nonsense," he declared, but I sensed the agitation his voice could not conceal.

"But there was," I persisted. "I heard it moving around. And what is more, I saw it too! Whatever it was entered your laboratory."

"I think," said the doctor in calmer tones, "that you have had a nightmare. But to show you that you are mistaken I will look into the laboratory, of course."

HE STEPPED forward swiftly, switched on the lights from the doorway, entered, and closed the door after him. After a few moments he came out again, this time springing the Yale lock which automatically locked the door as he pulled it shut.

"There is nothing in there," he said briefly; "the place is empty."

I did not believe him, for I had seen what he without his glasses had evidently overlooked, a track of dampness, as of water or oil, which led from my chamber to the laboratory entrance. However, I said no more but retired to my room. All my uneasiness as to supernatural visitants vanished. That trail had been made by some living creature. Doctor Jacobs was concealing something in his laboratory—something which he desired to keep from my knowledge.

I tried to conjecture what it could be: a monkey, a dog. But a monkey or dog could not have made that continuous track. They would have left the impress of paws. That track had been left by something that slithered, scuffled along; something that crawled—like a snake! But here I brought myself up with a jerk. The thing I had glimpsed, however briefly and in the gloom, had certainly not been a snake.

From pondering the nature of the concealed creature, my thoughts turned to a consideration of the doctor himself. I began to wonder about his mental state. After all, could he be called entirely sane? A man of an introspective and brooding temperament, without friends or intimates, who had evidently given his life over to a pursuit of that which had become a mania with him.

Geniuses were like this, of course, but so also were madmen. From the first I had thought the doctor "queer", but sensible enough. But of late there could be no blinking the fact that his "queerness" had increased. Even Mrs. Reynolds had commented on the change in his manner. As quiet and secretive as ever, his quietness and secrecy had changed radically from that of the first months I spent in his employ and seemed now based on a suppressed excitement which showed itself in a certain tenseness of features, of abrupt movements punctuated every so often with irritable explosions.

Sometimes, for hours at a time, (the floor of his private laboratory was the ceiling over the main one where I worked), I could hear him pacing restlessly back and forth, back and forth. When he came to his meals

he ate little. I knew that he was sleeping less.

What was he seeking to discover that kept him many hours, and sometimes all through the night, experimenting . . . working? But now that my curiosity was aroused, the opportunity for gratifying it had passed. Doctor Jacobs had no intention of confiding in me, and before the intimidation of his manner my courage shrank until it was actually impossible for me to question him.

And in relation to his own work there was the matter of my own. At first the compounds had varied and I had produced them by the ounce and pint. But towards the end, during the last six months, a certain amount of those compounds became standardized, and of these I mixed, not ounces and pints, but pounds and gallons. Yes, pounds and gallons, which poured into his private laboratory.

What did he do with it all? I remembered the machine he had shown me, the viscous jelly-like mass on the table. His words came back to me. "Ah, if you knew what that was! And if the stupid dolts who ridiculed my theories knew!"

What had it been? I cursed the stupidity which had led me to rebuff the doctor's confidence by lack of interest. Whatever it was, I assured myself, it was not what the poor, deluded doctor thought it to be. Palpably, he was laboring under a delusion. As long as that delusion took a harmless form there was no cause for worry, but when it caused him to secrete strange creatures in his laboratory, creatures that prowled around at nights and disturbed people, then it was something else again. The creature, however, was not big and plainly timorous, at large only through accident, and fleeing at the sound of a voice.

Nonetheless, I retrieved my old Colt revolver from the bottom of my trunk where it had lain for years wrapped in oily rags and loaded it with care. And after that one experience I locked my door. For I remembered the face I had seen looking out of the window, and I wondered if the creature had that face . . .

In the morning Mrs. Reynolds asked me

if I knew who had made the oily tracks all over the dining-room and kitchen.

"Ugh!" she said, "it smells like that greasy stuff in the doctor's laboratory."

I saw that the tracks were the same as those running between my own bedroom and the laboratory door.

"And someone," she went on aggrieved, "has eaten practically all the bread, and the roast I prepared yesterday for tonight's dinner."

"Perhaps," I said, "the doctor got hungry during the night."

Thinking of the doctor made me ask her a question.

"When did you last clean the private laboratory?"

"A week ago Thursday gone."

"And there was nothing in it to excite your curiosity—no animal, for instance?"

She looked at me in amazement. "Why of course not! What makes you ask such a question."

"Nothing," I stammered, "nothing at all."

I did not tell her of what had happened during the night. There was no need, I reflected, to alarm her unduly. She slept at home and through the day I vowed to be always within call. If only I had suspected the terrible thing which was to happen within the week! But then if I had suspected it, it would probably never have happened.

"The Face . . . the Face!"

THE week passed without further alarm, but I noticed the increasing change in Doctor Jacobs' demeanor. He had become more than ever engrossed in his experiment, calling for larger and larger quantities of standardized compounds. His manner became feverishly nervous and intense, and when once I ventured to ask him if he were ill, he replied explosively that his health was no concern of mine.

He missed many of his meals entirely and Mrs. Reynolds remarked that he was making himself ill. I must admit that to all her inquiries he returned courteous if somewhat impatient answers. Yet in that last week he did an unusual thing. For some time Mrs. Reynolds had been missing loaves of

bread overnight. Now the doctor ordered six loaves of bread daily, and many pounds of cheap cuts of raw meat, which he carried to his laboratory.

"But what is it for?" questioned Mrs. Reynolds of me. "It can't be possible that he is eating it himself."

I shook my head. I was afraid that the strain of too intensive work had unseated the doctor's reason. I contemplated bearding him in his den, but testified for lack of courage. I wonder if I can make it clear just how intimidating a man Doctor Jacobs was. I did think of discussing the situation with some third person outside of our household, but I had few acquaintances, no intimate friends, and it was easy to procrastinate and let the days glide by.

That I am sorry now for my lack of decision and courage goes without saying. But the ordering of bread and meat in large quantities really went on only over a period of four days, from Wednesday to Saturday. This phenomenon did alarm me; more than I dared confess to Mrs. Reynolds. Besides the sight of the doctor's haggard face was disturbing.

I am doubtful if he slept at all during the last week. Sometimes I heard him muttering to himself. Once he gave a sharp laugh and clapped his hands. Yes, I decided, he must be crazy. Now I know that he was only expressing his triumph, triumph over

Many a time I crept to the private laboratory door and listened intently. If there were something confined in there it kept reasonably quiet. I could hear the doctor moving about, even hear what seemed to be a stamping and slithering sound. But these latter noises could be ascribed to the machine, to the wielding of a hammer. Yet there must be something inside the room with him; something alive, that could eat; for there was the meat, the bread, the creature that had aroused me one night. So I watched and listened, and waited, and then on Saturday night it happened.

After dinner on that fatal evening I had gone to my room to shave and change my clothes, for I was going to take Mrs. Reynolds to a "talkie" at the Fox theatre.

The doctor had not come to the table. Much disturbed, and without telling me her intention, Mrs. Reynolds arranged some food on a tray and carried it upstairs to the laboratory. It was getting dusk, the hall-light not yet turned on, but there was sufficient light coming through the big hall-window for one to see his way through the corridor.

She knocked on the laboratory door, found it ajar, pushed it open and entered. I was fastening my collar in front of the bureau mirror when I heard the crash of the tray and its contents as they struck the floor. Mrs. Reynolds' voice went up, up, in a terrified scream. Even as I threw open my door and leapt into the hall, she screamed again, a scream that expired in mid-utterance. Again and again in her delirium, she told what happened. "The face," she babbled, "the face!" And then: "O God, it's got me, got me!" But that was later.

I heard her scream from the laboratory, I say, and thought the doctor had at last gone violently insane and was killing her. I thought But even as I thought I hurled myself down the hallway, through the laboratory, all cowardice swallowed up in the danger of the woman I loved.

"Laura!" I mouthed, calling her by the name that so far I had dared only utter to myself, sick with fear, my heart leaping like mad. "Laura!"

She did not answer. Mercifully she had swooned.

The Monster in the Dark

A MOMENT before there had been sufficient light by which to see, but at that indeterminate period between day and night, darkness comes swiftly and already the interior of the laboratory was shrouded in gloom. Yet through that gloom I saw something looming, something monstrous, menacing. I hurled myself at this dimly seen figure, I beat at it with my fists.

I was screaming, cursing. Then a flailing limb of what I now realized was not Doctor Jacobs but the hideous creature he kept secreted in the room, the creature that devoured the bread and meat, felled me to the

floor. I fell across the body of Mrs. Reynolds.

Dazed, and on hands and knees, I dragged her to safety through the doorway and into the hall. Behind me I could hear blubber-like noises, noises horrible, indescribable. I think the monstrous creature was rooting for the food spilled on the floor. Perhaps that was what allowed me to gain the hallway without interference.

Even as I did so the lights in the hall came on and I saw the doctor standing over me with wild, distorted face. It has since been my guess that he must have been worn out mentally and physically from his days and nights of constant experimenting and gone to his bedroom for some needed rest. In his utterly exhausted condition he must have forgotten to lock the laboratory door—as he had forgotten once before—and so left the way open for Mrs. Reynolds to enter.

“Damn you!” I screamed, “look! she is dead! It is your fault, your fault! You’ve killed her with your damnable monster, killed her!”

But he dashed past me without a word, entering the laboratory, slamming shut the door after him, the Yale lock catching. I heard his voice rise as if in a rapid stream of curses. Then there was a crash; it sounded like the machine toppling over. Came the noise of interlocked bodies swaying, struggling. The blubber-like noises rose, rose, intermingled with shrieks, with gasping groans and cries which could emanate from no one but the doctor himself. The doctor was fighting for his life; but I thought only of Mrs. Reynolds.

The doctor must do the best he could. To attempt going to his rescue might loose the terrible monstrosity on the woman I loved. So I picked up her still unconscious body and staggered down the steps. In the hall below was a telephone. Taking down the receiver I yelled into the mouthpiece: “Murder! Murder! Police, Police! Murder!”

At last the police came. It seemed like hours until they did, but in reality couldn’t have been more than ten minutes. When they broke into the laboratory the thing was already mortally wounded, dying, and the

doctor But before I tell what happened to the doctor let me seek to give an inkling of the origin of the creature which was to be his death.

I know that the explanation will sound wild and incredible. Learned doctors of science will probably point out the absolute impossibility of such a thing; as for the average layman, he will believe me a raving fool. But there is my own experience, for what it is worth, and the evidence of the doctor’s diary found in his chamber. The diary is quite exhaustive, but unfortunately the doctor had failed, or been too careful, to give any but the vaguest reference to the construction of the machine destroyed in his battle for life.

From it, however, I have taken the following widely separated entries. Perhaps they will serve to make clear the seemingly incredible thing the doctor accomplished and establish once and for all the origin of his murderer. The first entry I quote was made in 1932, a few days before my employment.

“June 5th. I am on the right track. After years of laborious research and disappointment I begin to see light. Doctor Hammet’s experiments with proliferation of root tips, and with the stimulation of reproduction in paramecium,* prove but one thing. Sulphur is the basic constituent I have been looking for. Sulphur!

“Tuesday. (No date). Protoplasm—I have manufactured synthetic protoplasm. God! what would they say—they who flouted, scorned me and my theories? It was very simple after all. Infra-red and ultraviolet rays filtered and diffused through certain arranged crystals and prisms. The reaction on the compound has created the basic stuff of life itself. Protoplasm

“August 1st. I have shown Edwards the machine, the protoplasm. He does not recognize the latter. I was tempted to take him further into my confidence. Oh, if there was only some one to whom I could talk! But this miracle would be nothing to him. He would believe me mad. He is a competent worker but without the brains, the attributes of a true scientist. No, no, I

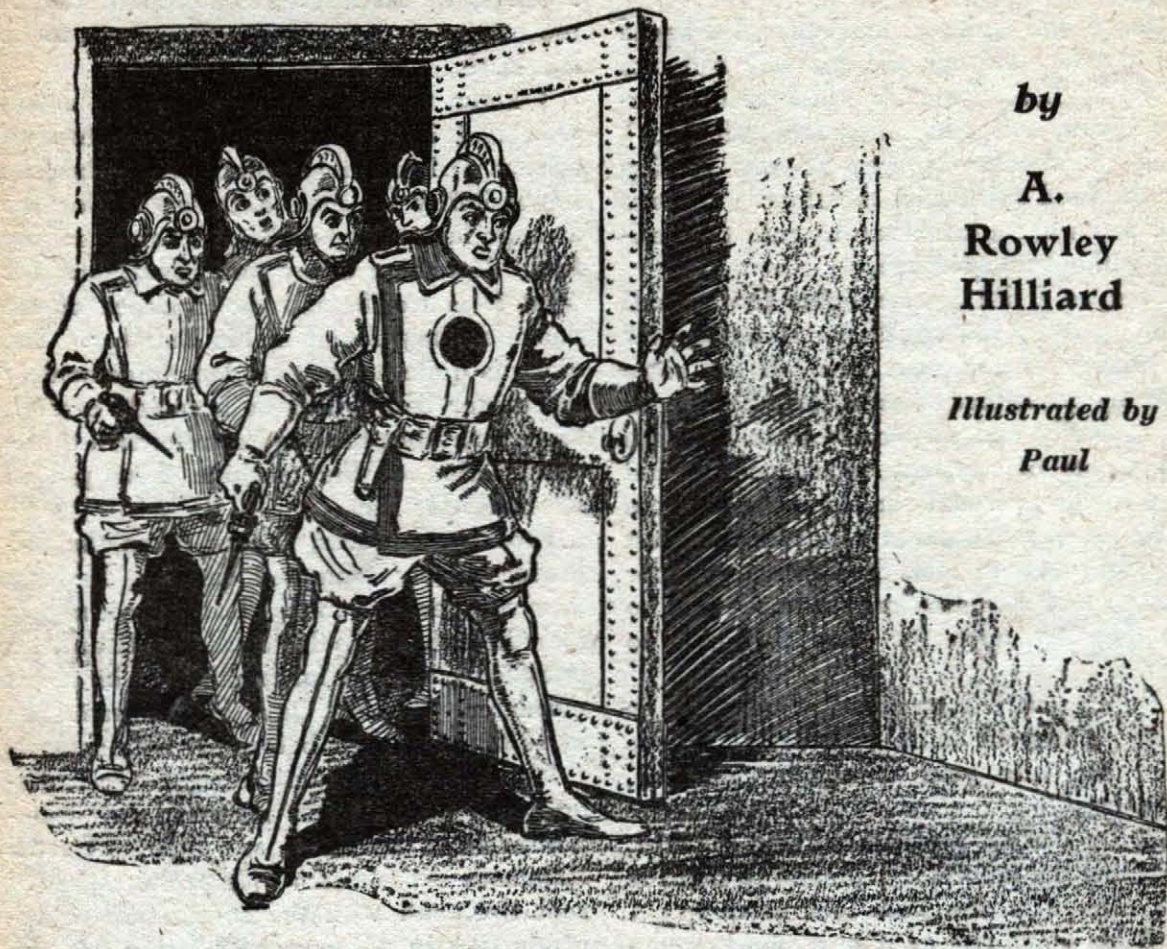
*A simple one-celled form of life.

The Green Torture

by

A.
Rowley
Hilliard

Illustrated by
Paul



Fifty hours of relentless torture was the price he must pay, if he refused the secret

IN a room of bare concrete two men stood face to face. The black bearded man spoke.

"Forget that our countries are at war—forget that you and I are enemies, and let me beg of you to tell them what they want to know; for I would not willingly condemn any human being to the torture you are about to undergo!"

The other, whose face was white and whose jaw was set, smiled grimly.

"Sir, you are a hypocrite. I happen to know that the device is of your own invention."

"True, I conceived it myself—true, it was built under my supervision; but I acted under orders. They told me to devise a method of extracting information from cap-

tured prisoners, and I have done it. The Council has sent you to me, and I will not hesitate to obey its orders. I love my country, sir—as much as you do yours."

"The noble Council that must torture a helpless man!" mocked the other.

The black-bearded man flushed, but remained calm.

"A little after the beginning of this century," he said seriously, "the nations of the earth joined against each other in a struggle which we still know by the name of the World War. It was a struggle of brute force. Tens of thousands of men clashed together, hacking each other with knives called bayonets, or disembowelling each other at short range with gunpowder projectiles. True, they made rudimentary at-

tempts to smother each other with gases—true, they engaged in petty squabbles above the ground in their suicidal flying planes; but these were merely side-shows. The basic principle of the affair was the man-to-man combat. At that time, therefore—

“You can spare me your history lessons, I hope!” interrupted the other impatiently.

The man raised his hand. “I have good reason for saying what I do,” he insisted. “At that time, therefore, the importance of any particular man—even of one in command of his fellows—was not great; and his capture was an event of no particular significance. He might have some minor information on strategy, but the *method* of attack was so cut and dried as to be never in doubt. If a captured man were a spy

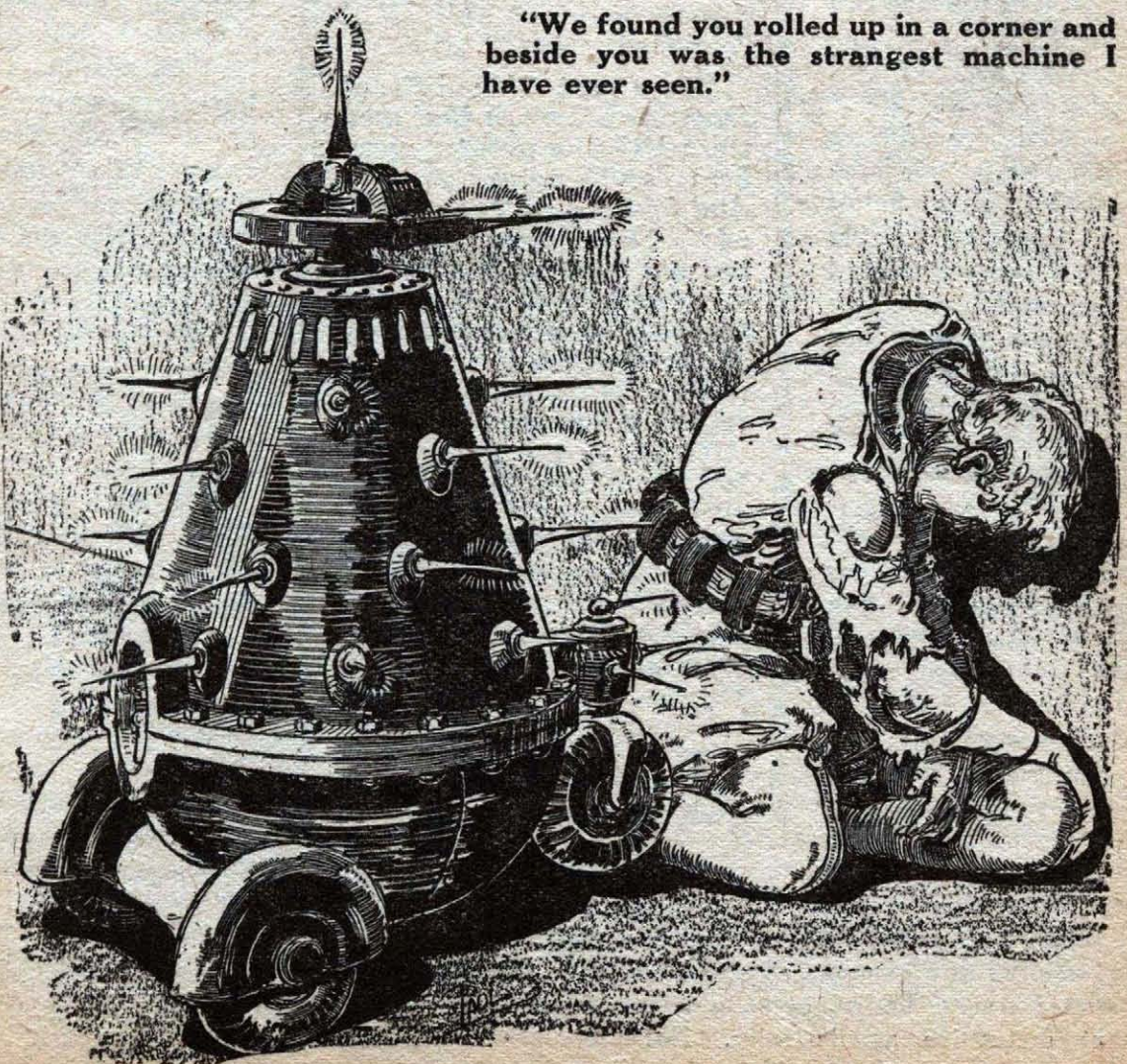
his captors usually were contented to threaten him with death; and, if he told them nothing, to stand him against a wall and shoot him.

“In 1980, however, it is different. In these days of scientific warfare the importance of the individual has been greatly enhanced. The destructive knowledge that one man can hold in his brain is enormous—awful!

“The Council has reason to believe that you know the particulars of an attack which is to be launched against us. Every destructive agency has its antidote—every attack its defence. And that is why you must tell us what you know.”

“That is why I will not tell you what I know!”

“We found you rolled up in a corner and beside you was the strangest machine I have ever seen.”



"That we shall see, Dr. Thorne!"

Thorne remained silent. For the last two days since his capture he had heard nothing but threats; and now they irritated rather than frightened him. For hours at a time he had been heckled and browbeaten by the most vigorous members of the Council, but not one scrap of information had he divulged. As a last resort they had sent him to Bjornsen, the great scientist and inventor, whom two short years ago—before the outbreak of the war—he would have been proud to call his friend.

A hot anger gripped him. Friend! Never could he forgive Bjornsen for this humiliation of a fellow scientist. After trying his other methods of browbeating him they had put him in this place of bare concrete. And now Bjornsen had come with more threats! Hate gleamed in his eyes.

"Bjornsen, I will never tell you what our attack will be. You will never know until it comes and you are as helpless as a child in our hands—you, your wise Council, and your whole nation!

"You began this war, but we shall end it," he continued tauntingly. "And you are helpless. We shall not use anything so old-fashioned as poison gas, so childish as projected disease bacilli, or so unsatisfactory as destructive atomic force. No! Our plans are made, the day is set, and—"

"Enough!" Bjornsen's face was working with fear and fury. He pressed a button in the wall by his side.

"I think you are a little too sure of yourself, Dr. Thorne. I have warned you; I have tried to be decent to you; now all of that is at an end."

MAN, as he progresses upward, is supposed to become more civilized not only in the general conduct of his life but also in his dealing with his fellowman. But that has not been true in the case of warfare. For the horrors that the average soldier was exposed to, the last war was unsurpassed. It was only in the treatment of wounded and mangled men that we were able to demonstrate at all that "civilized method".

The Great War differed from the others in that men were killed in greater numbers and more quickly. And because we have learned that new science allied to the old method of making war (with bomb, bullet and bayonet) destroys not only the vanquished but also the victor, future wars may be fought upon saner methods. After all it is not necessary for two armies to decimate each other in order to determine a victor. Science should be able to provide a means to put men and armies hors de combat without inflicting more than temporary damage upon the soldiers. Our author has conceived of such a weapon, and upon it he has built a truly prophetic story!

HEAVY, muffled footsteps sounded in the corridor. Two muscular negroes appeared, pushing gingerly between them a strange machine. It was squat and heavy-looking, like an upright egg, small end uppermost, and resting upon three broad, rubber-shod wheels. The top was surmounted by a small sharp spike. Other spikes stuck out maliciously from the body and all of them were colored a dark green, shiny, radiant, malignant.

Thorne was silent, staring at the contrivance in utter amazement.

At a guttural word from Bjornsen they released it in the middle of the floor across which it started slowly moving. One of the negroes handed him what appeared to be a belt, made of oblong iron blocks chained together. This he cast clanking into a corner.

And then Thorne felt a cold sensation in his stomach. He gazed wide-eyed. The crawling thing was turning slowly—turning in the direction of the belt!

The black-bearded man regarded it lovingly. "You are surprised, I think," he

said with a mocking smile. His fury had abated, and he spoke maliciously—cruelly.

"I will explain to you my pretty crawling thing. It is powered by a battery which will propel it for fifty hours. You see that it is moving towards the metal in the corner. That is mysterious—eh?"

Thorne said nothing. From the belt of the other hung a small ray pistol. A sudden leap might get it . . .

"That is mysterious only to you," Bjornsen continued. "The metal yonder is highly magnetized. Within my toy is a magnetic needle which controls its movements. Thus it has—ah—it has—an affinity! That is good—eh?" He chuckled. "And it is so shaped that it will not lie upon its back like a turtle. Ah no! That would make it helpless—eh?"

"Also I should warn you very earnestly—for it concerns you—that the prongs are needle-sharp, and are coated—pay attention!—are coated with a peculiar poisonous vegetable substance from the region of the Amazon River. There the natives use it on the missiles which they hurl. The slightest prick . . ." He laughed—but did not complete his sentence.

Thorne was scarcely listening to this harangue, although he vaguely realized its deadly import. He was tensing himself for a spring.

"I had thought of an alternative," the man continued conversationally. "I had thought of attaching a compartment filled with one of my poison gases, which would be released when my toy met with any resistance. But I prefer the prongs. The gas seemed too—too—what shall I say?—too anesthetic! You see, I—"

At this point Thorne leaped. The man jumped back.

"Seize him!" he shouted. Like two great cats, the negroes were upon him; and his

struggles were useless.

"Hold him!" ordered Bjornsen. He walked over, and picked up the belt towards which the strange thing was relentlessly moving. This he pulled around the waist of the struggling Thorne. He snapped a padlock, and stood back rubbing his hands.

"You and my toy," he said calmly, "shall play a game of hide and seek together—in the dark! To aid you, you will notice that I have placed a small green light at each end of my toy. I hope that you will watch it carefully. I have found that it requires about twenty seconds to cross this floor. Oh yes! it has been used. The last man that played the game told us what we wanted

after twenty hours. A sad case, though; he is now completely insane!"

Shaking his head sadly, he spoke to the negroes. They released Thorne, and went into the passageway. Thorne stood still; he could think of nothing to say or do. The black-bearded man bowed ceremoniously.

"I hope that you will not be cold," he said. "I am sorry that I cannot let you have more clothes. However you will find yourself becoming warm naturally. When you want me you have only to press this button in the wall. You should shift your position soon. Goodbye!"

He slipped into the passageway and slammed the heavy door.

The Torture Begins!

THORNE felt a sensation of relief that he was alone. He looked around him curiously. The room was square, about fifteen feet across, and absolutely bare. The walls and floor were of concrete. In the ceiling gleamed a white dome of light.

Slowly he became conscious of a soft whirring sound behind him. He looked down. Less than three inches from his leg



A. ROWLEY HILLIARD

pointed the green prongs! The light suddenly went out; absolute blackness enveloped him. He stumbled blindly forward, and crashed against the wall. He faced around, panting and shaking.

And then, as his eyes became accustomed to the darkness, he saw the green light. It was small and dim; it cast no gleam. Eyeing it intently, the man felt his way along the wall to the farthest corner of the room.

He sat on the floor; for he knew that he must conserve his strength, and the iron belt was very heavy. He was not frightened now. The ease with which he had evaded the thing gave him confidence. Twenty seconds to get to him, it would take . . .

He sat about reviewing in his mind the conversation with Bjornsen. He shouldn't have lost his temper; that had been a mistake. Still, he hadn't told them anything useful. They could never guess—never! His mind travelled back to the time of his great discovery—over a year ago, now.

He remembered how he had been experimenting in his laboratory with new high frequency radio waves for the control of air-torpedoes; how by co-ordinating a series of oscillators he had achieved high frequencies never before dreamed of—a million kilocycles and more; how his whole body had been gripped as by an awful power; how the world had gone black before his eyes, and he had known no more.

Vividly he recalled his recovery two days later in the hospital and his consultation with the puzzled doctor who said he had suffered complete paralysis of the nerves, but could suggest no cause.

With typical scientific curiosity Thorne had set to work to solve the mystery. The fact that his laboratory assistant had suffered in exactly the same way was the clue that finally led to his astounding discovery;—that radio waves passing through the body within a certain range of very high frequencies attack the nerves producing a temporary complete paralysis!

And yet it was not unbelievable, as he had pointed out many times since then. Electro-magnetic waves affect the optic nerves only within a very narrow range of

frequencies. There are many other colors than those that we see such as red, violet, blue, green . . .

Green!

As he thought his eyes had been fastened upon the green light. It was the only use for them. The darkness was so complete that he could see no part of his own body.

He grew puzzled, then uneasy. It should be moving, he knew; yet it appeared to be perfectly stationary. The whirring sound had never ceased.

Suddenly, nervously, he leaped to his feet. The realization of what this meant had come to him. He could not see it move! The only tool of perspective left to him—that of change in size—was gone. He felt his way hurriedly along the wall, turned a corner, and moved on until he could see no green light at all. He knew that he must be opposite the side of the machine. He stood absolutely still, straining his eyes.

A speck appeared—moved—he could tell that it was moving slowly sideways—then it became stationary. And he knew that the thing had turned, and was once more coming steadily towards him. He remained motionless as long as he could, but the thought of being in that direct line was unnerving. Again he stumbled along the wall. He sank to the floor in a corner, only to struggle to his feet again, and move uneasily on. He was losing his sense of the passage of time. Twenty seconds to cross the floor, Bjornsen had said. Two minutes—twenty minutes—an hour—it was all the same!

The room was a room no longer. It was an endless wall which scraped his skin as he fled—which bumped and jarred him at its corners.

Hunted by a relentless green death in a timeless and spaceless darkness! The man trembled. The palms of his hands were clammy. He moved in spasmodic jerks, breathing unevenly.

The man became tired. The realization that he was wasting precious energy slowly calmed him.

"I must keep my head!" he muttered. "I must!"

FOR the first time his thoughts turned on the machine itself. Surely a senseless thing could not hunt a man to his death! It was inconceivable. He struggled for a minute to remove the belt, but realized the futility of that. No, he must attack the thing itself.

He followed the wall until no green light was visible. Breathing heavily, he crept out across the floor. He tried to guide himself by the whirring sound, but it seemed to come from everywhere. Suddenly a green light appeared. Clenching his fists and setting his teeth the man walked deliberately towards it as far as he dared. Then he circled quickly, and knew that he must be almost at the side of the thing. He thought that the whirring was louder. He leaned over, and reached down.

With a cry he leaped back. In the nick of time he had remembered the deadly green spike on top. He must approach it from below. Calming himself, he got to his knees. He reached his hand along the floor—farther—farther . . .

He touched something hard and smooth. It was vibrating softly. Feeling his way carefully, he maneuvered until he had a hand on each side—his fingers beneath it. He was going to lift it as high as he could, and dash it to the floor. He got to his feet, and pulled upwards with all his strength. The thing was unbelievably heavy. He raised it a few inches; then his fingers gave away, and he fell backwards. There was a loud bump, but the soft whirring never ceased.

Nerving himself, he returned to the attack. He would turn it on its back. Perhaps Bjornsen had lied to him. By a series of careful maneuvers he got both hands under one side, and heaved. He leaped back against the wall trembling. The thing had righted itself so quickly that the cold metal had grazed his ankle. He remembered a toy he had once, like this. It would rest in no position except on its base.

He would try once more. He stood with his back against the wall, his legs wide apart, and waited. He could not tell how

long he waited, but suddenly the thing was very near. The light was almost beneath him. Now he could see its slow advance. He tensed himself. He was terribly afraid, but he did not move. And then as it seemed about to press itself upon him, he jumped sideways. And then what he had hoped for happened. The whirring ceased, the light stopped in its advance, and he knew that the deadly prongs were against the wall.

He knew that there were prongs at the other end, he knew that the devilish thing could reverse itself, but he blindly hoped that because it was stopped it would not start again. He crossed the floor. He held his breath. To his ears came the soft, steady purr. He sank to the floor, sobbing.

He knew that he could not leave the wall again. Never again could he approach that awful machine voluntarily. He must flee—flee continually—how long? Fifty hours, his tormenter had said. That meant nothing. What was an hour? How . . .

Light—dazzling, blinding! He clapped his hands to his eyes. It was some minutes before he could see—see the thing approaching from the center of the floor—squat, implacable. Quickly he looked away. On the floor by the door lay food, and water in a paper cup. He knew that he was being watched.

High in the door was a porthole of heavy glass. Faintly he heard a laugh. A mad anger gripped him. He ran at the machine, and beat its hard sides with his fists. The light went out. His terror returning with the darkness, he retreated, hit heavily against the wall, and fell.

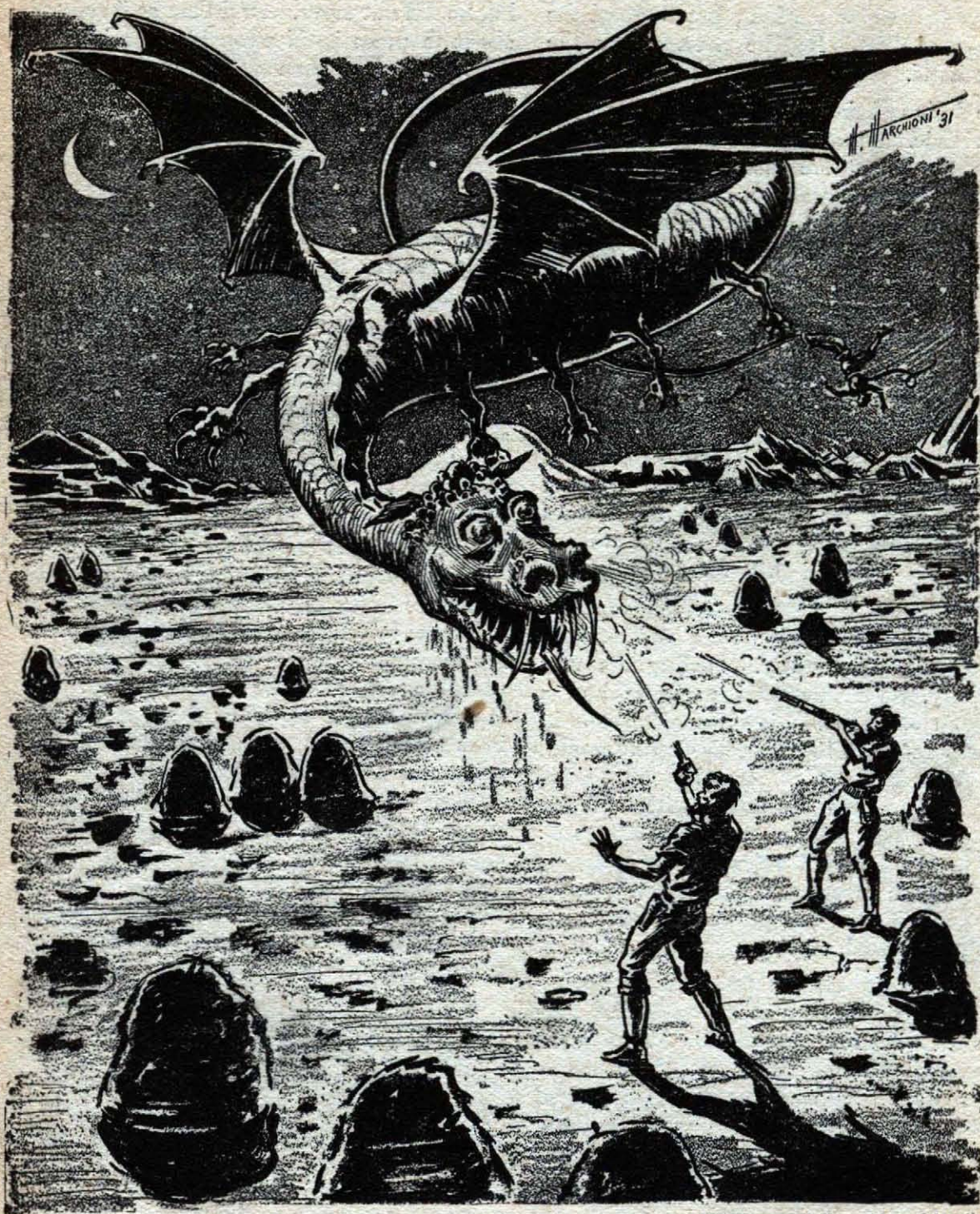
He tried to close his eyes to shut out the green light, but he could not. He must watch it; it held him. He felt that he could not move. He heard his heart-beats blended with the soft purr behind that dull, green, menacing eye. It was coming—coming . . .

With a shuddering sigh he staggered to his feet. He couldn't stand it—he didn't care what happened. He felt along the wall—There! he had it. His finger was on the button.

(Continued on Page 1183)

From Out of the Earth

by Ed Earl Repp



(Illustrated by Marchioni)

Its tail curled around Bright's body like a python, lifting him high in the air, as we pumped shot after shot into it.

AS MEMBERS of a scientific expedition exploring a newly found canyon in Death Valley, California, for the remains of a prehistoric member of *rhinocerotidae* which we knew, by petrified bone fragments recovered from the float, lay somewhere ahead in the blazing silicious walls, we came upon a man, aged, withered, and almost dead from thirst and telling years.

At first glance we grasped that he was a prospector of the old school, for somehow he had managed to cling to a shovel, pick and empty canteen even in the face of death that yawned wide for him.

I was the first member of our party to reach his side as he lay waiting for death to overtake him. Perhaps he was thinking seriously of the new world he was soon to visit, for he had not heard our approach until I was within a dozen feet of him.

Then with the swiftness of a striking *fer de lance* he suddenly found some hidden reserve strength in his brittle bones and snapped himself into a setting posture to cover me with an old 1900 model pistol. Astonished at the unexpected display of hostility, I halted in my tracks, holding up my hands wildly in a fearful gesture to impress him with my harmlessness. His eyes, half-closed and filled with sand eyed me from head to foot. Then I spoke in a trembling voice.

"Take it easy, old man!" I urged, forcing a smile. "We mean you no harm. We

spotted you a half-mile back and came up here to see what was wrong. You look all in, old timer!"

The automatic pistol hanging at my belt caught his gaze. For a few seconds he appraised it blankly; then the clatter of the others coming up the float caused his eyes to become even more hard. I gaped fearfully into the muzzle of his ancient gun and saw him tug at the hammer with his gnarled thumb.

Realizing that the man meant to kill me, I watched almost in terror. The hammer came back perhaps a quarter of an inch and stuck there on the safety catch. Feebly he tugged at the death device, his strength waning rapidly. The hammer refused to move further, so weak was the thumb behind it.

With a guttural, resigned groan, he lowered his gun and sagged, finally to roll over on his side. His efforts had sapped his reserve strength. He began blubbering like a child in broken, sobbing words.

"Y-y-you've got me at last," he mumbled as I lowered my tired arms and glanced around for the others, "but I-I-didn't do it! I swear I didn't do it. They'll never h-h-hang me! They'll never . . .

water . . . WATER!"

The gun dropped from his withered fist and slid down a short incline of gravel. I motioned wildly for my companions. They broke into a run, led by Dr. Frapin, paleon-

TALES that no one believes, fill the folklore of all nations. From Russia there have come stories, dating from the 15th century, telling of the appearance of airplanes. In the lore of the Aztec race is the story of a white god who came down from the skies to teach them all they knew—and give them their amazing inexplicable civilization.

How much truth is contained in these stories, no one knows. But when we hear them, remembering the adage: "where there's smoke, there must be fire," we must be willing to admit that truth may reside in them.

Mr. Repp knows Death Valley. He has accompanied many scientific expeditions there and he is familiar with many of the unbelievable stories that have come out of that "furnace of hell." Because of the intense heat there the year round, and because it is one of the lowest spots on earth, many strange occurrences could have taken place. This story may have been one of them.

tologist in charge, and soon reached the man's side.

As I bathed his wrinkled brow with water from my canteen, I wondered what he had meant by his suspicious words. My conclusion was inevitable that here was a man who had committed a crime; who had accepted us as officers come upon his trail to finally apprehend him.

After a time he ceased his blubbing, whereupon he informed us that his name was Jerome Ackerman. But I could see that it would not be very long until he carried it to his grave. His aged hands trembled and his lower jaw sagged weakly as he reiterated again and again that he had not committed the deed which had caused him, earlier in his life, to become a hunted man, a fugitive from justice. Time after time he asked us if we were officers searching for him. Informing him that we were scientists with no interest in his case beyond casual curiosity, his tongue, dampened with our water, gradually loosened and as though realizing that his end was near he began to unfold what I first expected to be a confession.

Frequently Dr. Frapin plied him with leading questions. On each occasion the dying man, now convinced that we were friends, the only ones he had met in many years of constant dodging his fellow beings, replied intelligently. Even with death standing in the offing, hovering over him like a grim, spectral shadow, he seemed to have full command of his faculties if not over his atrophied body.

Knowing that the man was soon to die, Frapin felt that whatever story he told, would interest the law and perhaps clear up an old mystery. And Dr. Frapin was the kind of a man to pry into the deeper things, being totally unsatisfied with surface indi-

cations alone. He was somewhat of a criminologist as a hobby, and handling the man deftly drew the admission that he would have killed me in cold blood, believing that I represented the law, had it not been for his weakness.

I OFFERED a silent prayer of thanks that the hand of God had prevented that and listened, as under Frapin's urging, as he unfolded one of the most amazing tales that I believe has ever come out of the mysterious desert wastes of the Valley of Death. Being the secretary of the expedition, I jotted down, in shorthand, like a court reporter, every word the man muttered.

Presently Dr. Frapin ceased questioning the man. He offered him another drink of water which he refused with a feeble nod of thanks. Then from his parched lips came this tale of privation, death and horrible terror; of a pursuing menace that had plunged down upon him.

"I tell you," he began as soon as his waning strength would permit him, "that I did not kill my three friends, Gundelfinger, Crank and Bright! How can I convince the law and man that I did not kill them as I have been charged? I have

told the true facts of the case only to be laughed at, sneered at and cursed. I will tell it again, to you, for as scientists you may believe in me. You may understand that such a thing that brought doom to my friends could materialize. I implore you to accept my word before God that my story is true from beginning to end. I did not kill Gundelfinger, Crank and Bright! Remember that!

"I first became acquainted with them at Tombstone, Arizona. They had prospected many miles of desertland thereabout for gold, with little or no success. Thereupon



ED EARL REPP

I befriended them, taking to heart their stories of bad luck, and gave them money until my pockets were almost empty.

"I took them into my confidence and we made plans to prospect in Death Valley, but Gundelfinger's wife lay ill and interfered with our departure. I knew that gold could be found in Death Valley and was anxious to be after it.

"Finally the woman recovered her strength enough to travel. At my expense we put her on a train bound for San Bernardino. We followed it on horseback, arriving at the California town two weeks later. From there the four of us went into hell, leaving the sickly woman in good care.

"It was she, incidentally, who made the first charges that I had murdered her husband and my other two companions to hide, for myself, the rich vein of gold . . . This woman, whom I had befriended, whose expenses I had paid with the last dregs of my own money, was the one who falsely betrayed me into the hands of the law . . .

"For weeks and months we wandered over Death Valley, digging here, digging there, the will-o'-the-wisp . . . gold, always beckoning us to peck at the burning earth beyond the next searing ridge.

"The heat was terrifying. The sun beat down upon us without mercy, causing our tongues to become parched and leathery on more than one occasion between distant water-holes.

"Day after day we struggled onward, up blind canyons, over searing flats and blistering mesas, down through dazzling coulees and out over the burning levels again. Always the yellow lure beckoned us to follow to the next saddleback. Death seemed, even as now, to tread the desert beside us. We drank sparingly of our water, half-dead with thirst, to save a few precious drops to dampen our leathery tongues when we attained the next ridge. On and on we went pursuing the mirage of gold.

"At night we heard strange sounds, weird, grotesque sounds, like the breathing of a monster bull, which at times sent us almost into stark insanity. But we managed to keep up our search day after day, my companions helping me, I in turn helping them.

We shared together the terrors of Death Valley; we lay close together at night for warmth, for the desert nights are filled with a chill that bites to the marrow of the bones.

"Eventually we came upon a great streak of red table-land that stretched for miles, terrible, merciless miles, in either direction. We mounted a slight incline and entered upon it. As we gained the top it seemed that we had walked deliberately into an open oven, so hot was the terrible blast that struck us. Before long the heat of the soft red asphalt burned through our boots, cooking the soles of our feet.

"Our water began to evaporate in the canteens. Each time we removed the caps for a sparing drink, white wraiths of steam danced forth and escaped into the flaming air."

The Tracks!

HE paused for a long moment to get his breath. His ancient lungs seemed to play out almost entirely every few minutes and he was forced to fight for wind. Frapin handed him a canteen and he drank sparingly from it as though hoarding the contents for a time of greater need. Finally he continued.

"For two days we trekked across that table-land toward the distant horizon that loomed up gray and ghostly in the eastern haze. Toward evening of the second day we came upon great, claw-marked tracks stamped deeply in the asphalt.

"They were the foot-prints of some tremendous beast that seemed to have dropped from the sky like a bird, landing on what must have been eight feet and went away again after a moment's pause. Each of its eight prints were imbedded inches deep in the asphalt, showing the great weight of the mysterious creature.

"That's damn strange, Ackerman!" Gundelfinger said to me as we tarried to inspect the prints. "I never heard of a critter as large as this!"

"Nor I, Jim!" I told him frankly. "And it had eight legs!"

"Crank and Bright appraised the tracks carefully, walked around them and measured

the distance between the rear and the front prints. They looked up in astonishment, their faces pale despite their deep tan.

"Twenty-three feet apart, partners!" they chorused.

"Whatever made those tracks must've been a giant, Crank!" said Gundelfinger. 'Looks like some prehistoric, eight-legged beast has landed here from the air an' took away again. I think maybe the tracks were made thousands of years ago. I've seen some tracks in Arizony made by dinosaurs millions of years ago!'

"I think you're wrong," said Bright, shaking his head. 'Look here!'

"He walked the full length of the tracks, paused and pointed down to the hot asphalt. We followed and stared, Gundelfinger poking lightly at a conical heap with the toe of his boot. The stuff was soft.

"Droppings!" he said, baffled. 'And no more than a few hours old, else they'd be dry!'

"And another thing, Jim," stated Bright. 'To prove that the tracks are not more than a few hours old, is that they're still sharp and clear. If they were old, the asphalt would have dripped oil into the holes, coverin' the prints, an' the edges would have overlapped by now!'

"I guess you're right, Bright," Gundelfinger acknowledged. 'They're young prints, by jingo!'

"But we are getting nowhere, partners," I reminded them harshly. I was impatient to get off that streak of red table-land. It was too damnably hot; too ghostly, and our water supply would hardly last to the next salt-hole.

"We departed at once and after a half hour's steady hiking we came upon another set of the tracks. Shortly thereafter we saw others until eventually we came upon a section of the table-land that was punctured by countless prints, making the going mighty hard. It was hard to go on without sinking ankle-deep in the holes in the bottom of which were exposed the clear imprints of the giant, clawed feet.

"The monster from hell must have done a dance of death there, else it was some kind of a roosting place for many of them.

We hadn't a doubt in our minds but that the monster was from the air. The first set of tracks told us that much. If the thing had not come from the air, it would have left a steady trail as it walked across the blazing asphalt streak. As it was, it seemed to have landed here and there for a short period and then take off again, leaving conical piles that at times reached waist-high wherever it had come down.

"Fearful lest we encounter the monster itself, we banded close together and sped as rapidly as we could across the table-land. Night was falling fast. The sun was setting in the west like a blazing ball. A stiff breeze, as hot as the breath from a furnace, was sweeping over us. On it was an odor, tainting the air with a sickening sweetness, becoming at times, almost nauseating.

"Long after the sun had vanished behind the Funerals we kept on. But the hand of the devil seemed to interfere with our progress and we were forced to stop for the night on the fringe of a heavily tracked area. To go on in the darkness would have meant broken ankles, for the night was almost pitch-black and we could not have seen the deep holes.

"We did not build a fire for the evening meal, though we carried sufficient fuel to boil coffee. From the cans we ate cold beans that had long since been dried by evaporation. After that we placed our blankets close together on the asphalt, but we could not sleep.

"Terrifying sounds reached our ears, menacing hisses that cut the blackness like escaping steam, and dismal sighs that sounded like wind threshing through giant wings, made sleep impossible. The noises would cause any mortal to tremble in his boots. They were blood-curdling.

"It must have been exhaustion that finally forced my eyes to close in a troubled, awful slumber. How long I lay in the throes of dreadful nightmares I do not know. But I suddenly awakened with a start.

I KNEW that it was a beastly scream that jarred me to life. So human and terrible was it that my heart leaped into my

throat as it came again followed by a thunderous roar sounding like stampeding cattle. In the blackness not far away I thought I glimpsed what appeared to be a ghostly monster hovering in the air, but laid the ghastly vision to exhaustion and fear. Then Gundelfinger suddenly spoke.

"Where's Crank?" he asked in a low, terrified whisper.

"Isn't he lying beside Bright?" I replied with a shiver.

"Bright emitted a frightened groan before he spoke. 'No, he's not here!' he said. 'He's gone . . . slipped away, for his gun is lying beside me!'

"Good God!" I breathed fearfully. 'Do you mean that he slipped away with the monster prowling about?'

"He probably went to investigate the noises," said Gundelfinger, whispering softly. 'He'll come back!'

"No, my friend," I argued. 'Crank would not wander around here without his gun, unless something lured him away.'

"I felt Gundelfinger tremble suddenly as his hand searched for his pistol.

"Lured away?" he inquired like a man dazed. 'Lured! Good God, I felt something trying to entice me away from here but I fought it off! I felt a terrible urge to go wandering around looking for the thing that seems to be hovering around us. I recall the sensation now. I must have been dozing when I felt it. It was like some invisible power, coaxing, pleading with me to follow an irresistible lure!'

"Oh, Crank'll show up in time," said Bright, trying to bolster his courage in the thought, though realizing full well that Crank would never be seen again alive.

"For the rest of the night we lay in breathless terror and listened to the terrifying sounds. I heard no more screams such as come from a human throat. I had no doubt but that Crank had been lured away and sent to his doom with the death cries that had jarred me to life. We listened tensely for sounds of his return and heard no human footfalls.

"Finally the desert became aglow with the rainbow colors of early morning. With the first streaks of dawn we stared around

us, amazed that we had lived the night through.

"The table-land was deserted! There was nothing in sight that could have made such awful sounds as throbbed throughout the night in our ears. And Crank seemed to have been swallowed, for he had vanished entirely, leaving no trace.

"What had been his actual fate we could not know then. We did know that he was gone. We could see thirty miles in either direction and not a speck bespoke his presence anywhere on the flat. I did not doubt but that something awful had befallen him, though with the arrival of daylight we felt somewhat secure, and at a loss to know what to do next, we began hiking away from the spot.

"The new day was begun almost as the rising sun came over the eastern ridges. It seemed to pop up suddenly. Then the desert became an oven. As we went away hurriedly we ate dried prunes for breakfast, washing them down with a scant drink of water.

"The tracks were everywhere now. The conical piles of droppings were like prairie-dog mounds, though somewhat higher and more pointed at the top. Somehow Gundelfinger stumbled over a pile of the dung, fell on his face and swore.

"But in falling he had kicked off the top of the pile. We were mystified to find exposed a great, egg-shaped object weighing at least twenty pounds. So hard was it that the butt of a gun could not smash it. The thing was like an oval stone and as white as flour!

"After trying to smash the shell with a gun-butt, Bright finally succeeded in breaking it on a chunk of red rock. To our utter surprise we found, within the thing, tiny animal scarcely larger than a new-born pup, with eight legs, a dragon-like head and thin, almost undeveloped wings on its sides like the membranes of a flying squirrel.

"It was a vicious little devil and very much alive as Bright discovered when he tried to fondle the little beast. It opened its savage little mouth and sank needle-like teeth into his hand. With an oath he hurled it from him, killing it instantly.

The Strike!

“‘I THINK I know what its all about, partners,’ he growled. ‘Some giant beast, possibly from another world, has been planting its eggs here on this table-land to hatch under the heat of the sun! This is the hottest place this side of hell and from the thickness of the shell it would take a helluva heat to hatch the filthy critters! Let’s get away from here before we follow poor Crank!’

“‘You’re suffering from hallucinations, Jim!’ I managed to laugh. ‘The heat’s got you by the ears! It is not possible for a beast to come here from another world!’

“‘Dammit, Jerome!’ he snorted heatedly. ‘Where else could such an egg-laying monster come from?’

“‘I admit it is a mystery, partner,’ I told him. ‘Yet it does not seem possible. I for one, do not believe that it came through space to this spot.’

“‘Maybe Crank was so scared that he just up and bolted,’ put in Jim Gundelfinger, squinting at the distant horizons.

“‘No,’ I said. ‘Crank would not dare start across the desert without water.’

“‘That’s right,’ acknowledged Gundelfinger. ‘He did not take a canteen!’

“After another five hours of continuous hiking we came to the end of the table-land. Below us stretched the eastern rim of the desert as far as we could see. Our water had given out at noon and now we were burning up with thirst.

“We made our way down the buttresses and started across the scorching sand. In the evening we encountered a spring, running pure water as cold as ice. It was hidden in a little box canyon and we had accidentally stumbled upon it while searching for an easy way out.

“Gundelfinger, his tongue as hard as sun-toughened leather, made a dash for the little pool. I yelled at him to wait until we had tested the water before he drank.

“Having been born and raised in the desertlands of the west, I knew well the danger of drinking water that bubbles up from saline soils. My companions, raised in the east, could not know that nine out

of every ten desert springs contain the deadly arsenic poison.

“‘Jim!’ I called. ‘Do not drink the water until we have tested it!’

“‘You go to hell!’ he rasped back, his voice sounding ghostly as they formed on his dry, leathery tongue. ‘You want it for yourself!’

“Despite my warnings he drank deeply and as I watched him for convulsions, he buried both his hands suddenly in the spring and shouted like a mad man.

“‘Gold! Gold! Gold!’ he cried frenziedly, dousing his hands in the precious water time after time, letting the silt of the bottom dribble through his fingers. The spring became a hole of mud before we recovered from our astonishment and made for it.

“And true enough, the silt was thick with sands of glittering gold! We had accidentally stumbled on life and wealth at the same time, lying together in the bowl of a bubbling spring of pure, untainted water! It was as pure as any I had ever tasted, but we drank it, red with mud.

“After a time the spring cleared. We filled our canteens from it, then with heavy hearts over Crank’s disappearance, we began searching for the mother lode from which the particles of gold had come. After a little work we located it several feet above the spring and right under eight inches of volcanic shale.

“It was the richest strike ever made! I know it! The vein where we encountered it was two feet wide and only God knows how deep it ran! We patted Gundelfinger on the back and gave him credit for the strike. He accepted it modestly and together we staked out the claims, including one for Crank. Bright made a map of the location and stuck it in his pocket. Then we started to work on the vein of yellow, virgin gold.

“With my knife I peeled off long slivers of the metal. How brilliantly it glistened in the light of the westering sun! Never had I beheld such a yellow, shining wealth. It made our blood run high in spite of what had befallen our party on the table-land. But Crank was gone and it was beyond our power to bring him back to us.”

DR. FRAPIN eyed me curiously as the prospector and murder suspect paused again for a drink of water. I shook my head dubiously and tapped my temple significantly with a pencil to denote my belief that the man was perhaps more than a trifle cracked. The scientist's eyes hardened for he nodded in defense of the man's story. Then the dying man resumed his tale, drawing our attention to him.

"For five days," he continued in wheezing gasps. "We stayed at the spring, digging like mad men, into the yellow vein. We watched our pile grow from a few miserable nuggets and scrapings to a heap that would require a mule to transport it. Then to our disgust and chagrin we discovered that our provisions were almost gone, with only a few cans of beans remaining to see us to Barstow.

"We debated on the question of one of us returning to Barstow for more provisions and a string of burros. But each was so eager to return to civilization that we decided that all should go.

"Hurriedly we covered our discovery with shale and piled rocks over the spring to hide it from any wandering prospector. After posting our location notices all along the vein we filled our canteens and started once again across that terrible red tableland, weighted down with as much gold as we could carry.

"Night and day we travelled until finally exhaustion halted us in the middle of the vermilion streak. Scarcely had we lain down than we were fast asleep.

"Suddenly we were awakened by the most hideous roar that ever grated on the ears of man. The ground under us seemed to tremble from the terrific concussion of the sound.

"'Good God!' Gundelfinger exclaimed, sitting erect.

"Bright, beside me, gave a snort of terror and shot a hand for his gun. His eyes glittered with an ungodly fear and his teeth clattered in his mouth. He seemed speechless. I was appalled.

"It must have been close to midnight when we awoke. But a crescent moon, standing

in the heavens to the eastward, bathed the blistered table-land with a pale, ghostly light. Stars glimmered overhead like fiery pin-points. The tableland seemed to roll and sway as though under the influence of some dreadful underground upheaval.

"In stark terror we sat deathly still on our blankets, pistols ready, to get our bearings. The streak, with its monster imprints and piles of dung, was aglow with the pale, ghostly light of the dim moon and stars. Not a living thing was visible on it, yet we knew that something awful hovered perilously near. The terrifying roar thundered down again and again causing goose-flesh to stand out on me like itching hives. My blood curdled in my veins.

"Almost together we gathered our legs under us and stood up, each holding his gun ready for instant use. Then Bright's eyes searched the air above us. What he saw there caused him to recoil with a fearful scream. He hurled himself flat on his face and buried his head in his arms. We looked up, appalled.

"Directly over us, huge, membraned wings flapping dismally, ready to charge down upon us, was the monstrous beast whose tracks had punctured the red asphalt all around us! It loomed overhead like some gargantuan thing of a forgotten age, its eyes bulging and flashing fire, jaws dripping with red, flaming saliva.

"God, what a terrible thing for a man to behold! What a terrible smell for a man's nostrils to inhale! The beast stunk like the dead, but with a nauseating sweetness that made us violently ill.

"I hope to God that none of you gentlemen will ever see such a beast! Even now as I tell of it, I recoil at its haunting vision dancing before my eyes. My stomach revolts at the smell which has never quite left my nostrils. I can never get that vision erased from my mind. It is stamped so firmly there that only death, which beckons to me now, can erase it!

"But so huge was the flying monster that it cast a black shadow over us. It floated lightly between us and the moon, engulfing us in a terrifying gloom. Yet we could

make out distinctly almost every detail of the thing.

"It was much like the little creature we had taken from the great egg previously. But how could a tiny little savage like that grow to such monstrous size, we asked ourselves?"

"The beast opened its dragon-like jaws, rolled its horn-studded head and roared at us. The concussion nearly knocked us flat on our backs. Then the monster flapped its great wings slowly and slid through the air, circling us. It dragged a monster tail behind it.

Flight!

"**F**ASCINATED, we watched, insanity striking threatening blows at our reasoning. Bright began to blubber suddenly like an imbecile. Then he arose from the ground and stood trembling beside us. After a moment he seemed to crack under the strain and began to run wildly.

"Instantly the creature lashed out its long, flat tail. It curled around Bright's body like a python, lifted him high in the air and as we pumped shot after shot into it, hurled him to the asphalt with a sickening thud. Hardly had his broken body stopped rolling than the brute was upon it.

"Too appalled and stupefied to run, we watched the beast swing downward and land on all its eight feet, jabbing the asphalt deeply with them. It stood over Bright's body and proceeded to gobble it before our very eyes!

"I have always been a religious man and I got down at once on my knees to pray. Some strange, powerful influence urged me to do so. Sobbing, I offered my prayer for safety.

"'Shut up!' Gundelfinger hissed at me. 'Keep shooting the thing! Prayin' ain't going to save our hides! Shoot its eyes out!'

"The beast was facing us now, watching every move we made. But Gundelfinger snapped up his gun again and fired straight at the creature. With a savage roar it lifted its head, its eyes flashing like twin fires. From its jaws hung what remained of Bright, a mass of bloody, horrible flesh!

"Gundelfinger's gun blazed again. I knew that his aim was true, for he had been known to shoot silver dollars out of the air. But the eyes of the beast still flamed! He could not have missed his mark because of his excitement. No better marksman ever lived than Jim Gundelfinger, but the creature's eyes must have been protected by a shield of thick, transparent bone of a strength to resist even a bullet from a .45! It was like trying to shoot out a light protected behind a slab of transparent steel.

"I aimed quickly and fired again and again, thumbing the hammer in a way that had won me the title of expert gun-fanner. As true as my aim was, no damage had been done to the brute's flaming eyes. They continued to spray us with a deadly light that seemed to overcome, to hypnotize me.

"Slowly the winged terror came toward us. It hovered perhaps ten feet above the asphalt, its scaled legs almost dragging, its flat tail writhing like a serpent in the air. From its jaws dripped vermilion. Terrible shreds of flesh and bone clung to its saw-like fangs.

"I must pause here to comment upon the nerve of Jim Gundelfinger. If ever a man possessed the courage to stand before such a terrifying assault, Jim Gundelfinger was the man. I cannot praise him too highly for his bravery in the face of almost certain death.

"He stood his ground as the beast approached, holding his fire for a killing shot. I backed away fearfully. Then his pistol cracked three times. I saw him draw his arm back to hurl the empty weapon into the awesome face of the brute. The gun collided with the bony nose, bounced off sharply and clattered on the ground. His bullets ineffective, he turned on his heels and ran off to the side.

"Instantly the beast lashed out its tail and hurled him flat. I saw him lifted high in the air and thrown with a thump to the asphalt. He writhed in the throes of death for a moment and then lay still.

"In stark terror I began to run, it did not matter where. With my pockets filled with gold, the going was hard. My canteen was almost full and further hindered my race for

safety. Yet I managed to run, filled with a deep-rooted horror and fear that brought insanity to my brain, expecting with every step to feel that awesome tail snap around my body like a steel spring.

"Then it came! It seemed to lash out for me like the tongue of a monster ant-eater flicking for an insect. I heard it drone through the air with a menacing wail, and then it snapped like a whip-lash just behind me. I was hurled flat on my face, but the tail had missed. I was a scant foot beyond its reach!

"Quickly I arose, blubbing like an imbecile, and continued my frenzied flight. Glancing fearfully over my shoulder I glimpsed that terrible tail again. The beast was curling it up for another thrust at me. I saw it, on second glance, spring outward. Again it snapped just behind me as though some monster was in my rear snapping a black-snake whip at my back. It missed by a mere fraction and once again I glanced back. I saw the brute's jaws close over the prostrate form of Gundelfinger. It began to gorge on its victim, now apparently unmindful of me, knowing evidently that my capture was but a matter of minutes.

"Like a madman I ran as fast as my legs could carry me. I leaped over narrow gaps, tripped in holes and prayed often for deliverance from the horrible creature that had so suddenly blasted our lives.

"**P**RESENTLY, in the dim moonlight, I saw a narrow gap loom up. I bunched my muscles to make a leap over it. As I sailed through the air I had a sudden thought. It came to me like a voice from the air.

"'Crawl into the chasm, Jerome!' something advised me plainly. 'Crawl out of sight and the beast can't get you!'

"I paused and looked back at the yawning abyss.

"'Hurry, hurry!' the strange voice urged. 'Crawl into the abyss and you will be delivered!'

"I shot a hurried glance at the star-studded dome of Heaven and mumbled my thanks. With lungs ready to explode from exertion, veins threatening to split, I ran

along the edge of the abyss, searching for a place to go down.

"Finally I discovered a narrow shelf of rock five or six feet from the top. Without hesitation I leaped down to it, slipped and almost rolled to my death in the bottom far below.

"The moon's pale light struck the shelf just right, revealing it to me clearly. Far below I could see the bottom of the gorge, widening into a great pit. The shelf gradually descended down to it. Taking my life in my hands I raced downward, hugging the wall closely. It was sheer and smooth, but frequently great boulders projected outward to interfere with my escape. I had to pause and wiggle under them like a snake. On one occasion a rock was hidden in a black shadow. I did not see it until too late.

"My pounding feet collided with it and I went sprawling, clutching madly for a hand-hold to save myself from falling into the abyss. By some miracle I saved myself even as I fell over, by clutching at the edge of the shelf. How I managed to pull myself back onto it, I shall never know.

"From overhead came a sudden burst of thunderous roars that lashed my faculties into a maniacal madness. The terrifying sounds crashed through the abyss like the explosion of a thousand cannons, echoing and re-echoing on every side. The horrible beast was on my trail at last!

"A dark hole yawned presently in the sheer wall of the shelf. It was the entrance to some underground cavern, leading from the shelf and created probably by some freak of nature. I dashed into the inky blackness without hesitation. Far within the tunnel I crouched. The heat was unbearable and little wisps of sickening, sulphurous vapors played around my nostrils, causing me to cough violently when I wanted only to be silent and still.

"Where was I. I had lost all sense of direction and might have been at the entrance of hell for all that I knew. As I lay I decided that somewhere near must be a sleeping volcano from which probably flowed the red asphalt that formed the vast, blistering table-land.

"The place was filled with savage, bestial

roars. I shrank fearfully against the hot, steaming wall, gun in hand, ready to blow out my brains should the beast manage to get at me.

"Suddenly at the opening of the tunnel, I beheld a snake-like object sliding, gliding along the moonlit shelf. It was the long, flat tail of the beast, searching me out!

"I placed the muzzle of my gun to my temple, hammer back, to send a messenger of death crashing through my brain. How good it would feel to die by my own hand rather than follow my three companions! I waited and watch the outcome of the sudden appearance of the creature's tail.

"It curled restlessly into the tunnel, searching blindly for me. The beast seemed to know that I crouched there somehow and was trying to ferret me out with its long, terrible tail. But something whispered to me that I was beyond its reach.

"Fascinated I watched the serpent-like thing. It curled and uncurled like the sensitive feelers of a butterfly, searching here, searching there, ever reaching out to clutch me in a grip of doom. It could drag me out of my hiding place with little effort and lift me into those awful jaws! I shrank farther away from it.

"On sudden impulse I levelled my gun at it and fired. The tunnel trembled under the explosion. My head swam, my senses reeled. Yet I saw the ghastly tail jerk back suddenly and then lash out toward me again. It seemed to glow with a strange, phosphorescent luminosity where my bullet had struck. It must have been the creature's blood that caused it to glow like that.

"But closer and closer it come toward me. From it radiated a sickening odor that I could detect even above the sulphurous stench engulfing me.

"Oh, God!" I cried out feverishly, as the tail came within five feet of me and paused, writhing frenziedly. It seemed alive with an undying craving to clutch me and haul me out of my place of terror.

I WATCHED it as I would the ugly head of a rattler. It writhed, stretched and lashed out, but after it failed to reach me, I laughed, insanely, madly. Then gradually my

senses cleared and I realized that it could not touch me. I was beyond it! Finally it withdrew slowly and limply like an injured reptile. I breathed a stream of prayers and intoned my thanks to the Invisible Protector.

"All night I crouched in the tunnel. Frequently I dozed off with a certain sense of security, awakening again and again with a jerk as I heard the terrible roars reverberating through the abyss. The earth shook when the raging beast stamped along the edge of the chasm, filling the skies with its seemingly disappointed bellows while it searched, I thought, for an opening large enough to admit its gigantic body.

"Gradually the mouth of the tunnel brightened with the approach of another day. Slowly the cave filled with murky light. I listened hard for sounds. The desert, with the dawn, had suddenly become quiet and still. Then I realized that the beast must have gone with the first light of day.

"Where had the great, interplanetary beast, as it must have been, gone? Had it left the table-land to bed down somewhere until the arrival of another night to lay its great eggs? Or had it flown into space to another world beyond our own? Was it safe to venture into the open or was the beast lying calmly, waiting for me to appear?

"I could not remain in hiding forever! My water could not last and hunger was already crying to be appeased. I must get out. I must get back to San Bernardino to tell Gundelfinger's poor woman what had happened, and give her some of the gold from my pockets!

"Cautiously I emerged from the cave and stood upon the shelf. The abyss was bathed in the brilliant sunshine of the new day. The sun was dazzling, blinding and it made my eyes smart. I felt the weight of the gold in my pockets. But the wealth was remote from my mind now. Life was more important. I could come back later with many men and guns if I was spared.

"As I looked down the abyss along the wall my blood seemed to coagulate in my veins, for there was that appalling tail in

full view, though the beast itself was hidden. The tail was curling and uncurling like a writhing reptile. I recoiled in fear and shrank against the wall lest the beast sense or see me.

"But the winged terror was sleeping, its body hidden from my eyes by the curve of the walls, its tail lashing sharply from side to side as though watching for me to come out of my hiding place.

"It dawned upon me suddenly that I had taken refuge right in the lair of the beast! But after a few moments of breathless suspense I decided that I was reasonably safe for the time. The creature could not, I realized, crawl down into the chasm from above and it was too far down to reach me with its tail which must have been at least seventy-five feet in length. The beast must have entered its lair by another entrance. But was I safe, I wondered?

"The desert seemed as deathly quiet as a lifeless world. Not a sound stirred the stifling air. Slowly and silently I picked my way along the shelf, glancing often into the abyss to keep an eye on that writhing tail. It seemed unaware that I was escaping. The beast evidently slept during the day and prowled about only when evening came.

"Finally after what seemed hours of tortuous stealth, I reached the highest point of the shelf and glanced over the table-land. It seemed as deserted as the chasm, it was silent and ghastly. The asphalt surrounding the abyss was beaten into a jagged field. The great tracks were everywhere.

"A little pile of rags not far away held my gaze for a moment. With a start I recognized the trousers that had been worn by Crank. They had been of checkered weave, but now they were blood-stained and ragged. After devouring my partner, the beast must have later coughed up the clothing.

"It struck me then that the location of our precious claims had been lost in the destruction of Bright. But seeing those ragged shreds of clothing spurred me to the grim realization that I had not yet escaped the possibility of a similar fate. Sick and afraid I crouched down for an instant's rest. Sight

of the stained garments completely unnerved me. I glanced again to the bottom of the abyss. The writhing tail was still there, awakening me again to the fact that my life was still in terrible danger.

"I pulled myself up from the shelf and entered upon the red streak of table-land. Without a pause I started due west away from the sun. I had a vague sense of direction now and felt more secure in the daylight, for it seemed that the beast was about only at night.

"More days of torture followed. The sun beat down upon me with the fire of hell. But I kept on toward San Bernardino, avoiding even Barstow in my haste to reach Gundelfinger's wife. I selected a short-cut through the blazing hills and with a leathery tongue in my mouth, and my body weighted down with many pounds of gold, I finally reached the town and went straight to the home of the woman.

"There I was given water to drink and to wash the sand from my eyes. Then I told my terrible story to the woman and gave her half of my gold. I could see, as I related my sad tale, that she disbelieved me. Certainly I had no witnesses or anything to substantiate my story and I would scarcely have believed it myself had it been told to me.

"But she became more and more suspicious of my weird, astounding narrative and suddenly she accused me of murdering her husband and the others to gain possession of the mother lode for myself.

"'My dear woman,' I told her frankly. 'Had I murdered your husband and the others for possession of the claims, I would not have come here to share my gold with you! No! I would have remained away forever!'

"'You are trying to protect yourself by your actions of generosity!' she snapped. 'I know what you did, you cold-blooded killer! You all found the gold and you weren't satisfied with a share, so you killed three men in cold blood for all of it!'

"'But, my dear Mrs. Gundelfinger'

I stuttered, appalled at her accusations.

"'You are a murderer!' she blazed heatedly. 'Your silly story is really amusing

but not convincing! You shall hang for your deed, and I shall laugh in your face as you die!"

"Such was my reward for my charity and generosity toward the woman and her husband. The hands that I had aided, the mouth I had fed had turned suddenly against me. Before I recovered my senses, she had called a man from the street and I was arrested.

"I was charged with the murder of my three companions, and tortured by unscrupulous officers who sought to learn the location of the gold strike. But I could not tell them, for no man had ever been there before and my sense of direction was totally gone. I would not have yielded even had I known where the strike lay.

"My story was branded a lie. I was charged with the triple murder and languished in prison waiting until the searching parties sent out, ostensibly to find the *corpus delicti*, but really to locate the gold mine, came back to report.

"But public sentiment flamed against me, principally because I would not reveal to these hungry, greedy people the source of my wealth.

"Finally on an agreement to tell where the strike was, I was spirited away from jail by a band of men. I even gave them a false map by which to locate the place should anything happen to us.

"It happened as I expected. They got me into the desert, and then one night abandoned me, leaving me water and food to last only a few days. What happened to them I never knew. Probably they perished, following blindly the lure of the desert and the false clues I gave them. Perhaps they returned, realizing I had played them false, to hunt for me.

"So, I escaped into the Valley, and here I have been. For years I have been a hunted dog. I have watched the Valley year by year becoming inhabited until I felt that soon there would be little place for me in which to hide. I have become like the coyote, hiding by day and prowling about by night, seeking always seeking for the mine . . .

"Now I am done out . . . my friends," he breathed heavily. "Let me have another

generous drink from your canteen so that I can go on with ease. The nearest spring is forty miles from here and I can't make it."

The dying narrator tipped the tin to his lips. His Adam's apple bobbed up and down as the water trickled down his ancient throat. I studied him carefully during that moment and his gaunt, weather-worn face was pitiful to behold. And I suspected that that would be Jerome Ackerman's last drink on earth.

He waved a feeble hand at Dr. Frapin who held the canteen for him. His hands had grown suddenly weak and the container would have dropped to the ground but for Frapin's alertness.

"Let me repeat, friends," he smiled a ghost of a smile and squared his jaw firmly, "that I did not kill those three men. Nor will I hang for it! The same Invisible Protector who saved my life on the table-land and who interfered with the hanging, is again stepping in. I will not hang, for I am at last a free man, for death releases us from all obligations in this life.

"But before I go I'd like to learn where that beast come from. I've tried hard to figure it out and concluded that it had flown here from the moon. You men are scientists, can't you enlighten me?"

Dr. Frapin looked at the prone prospector for an instant and then nodded.

"I think we can, partner," he said with a shrug. "It is the theory of many scientists the world over that the earth on which we live is hollow. Marshall B. Gardner, in his papers, 'A Journey Into The Earth's Interior,' points out the possibility of life within the earth, with the earth's polar caps as possible entrances. Many of us believe that this is correct and your narrative tends, to some extent, to prove it . . ."

"You believe me, then?" the prospector's eyes flashed dully.

"Of course," Dr. Frapin patted his gnarled, bloodless fist.

"Then I can die in peace," Ackerman wheezed.

"But to go on," continued Frapin, watching the man's wrinkled face. "It is entirely possible that the great beast to which you

refer, entered into Death Valley by earth-faults or fissures leading from subterranea or the earth's interior. From your description I can recognize no such a creature as ever having existed on the surface. It must therefore have come from within and was unable to return, probably because the fissure might have closed up behind it due to earth movements, thus making it a surface inhabitant by necessity.

"I do not believe that there is anything to fear from it or from the creatures within its eggs as a menace to humanity. They have probably died out in the intervening years."

The old prospector emitted a weird groan. Across his withered visage flashed a sudden pallor.

"I guess that's all, gentlemen," Frapin said in a whisper. "He's gone . . . dead. We'll bury him here."

"You—you believe his story, doctor?" I inquired, folding my shorthand record.

The others in the party searched his face quizzically. Frapin eyed us solemnly.

"I do!" he said emphatically. "From what I've heard from this man, he never told an untruth in his life. He strikes me as an honest man . . . Now let us get busy. We've got to find that streak of red table-land."

But a month's search availed us nothing, yet we live in hopes of locating it eventually. We are preparing now for a more extensive search, this time by airplane. But some day, some how, we believe we will find it, limitless wealth, and close to it the bones of the terror that came from within the earth. When we do, we will bring them back to San Bernardino and present them to the city, as a memento of a tale that no one believed!

THE END.

FOR THE APRIL ISSUE

we offer

"An Adventure in Futurity"

a new, masterful time travelling story by a master of words and situations

Clark Ashton Smith

Mr. Smith is aware of the heated controversy in our reader's columns over the possibility of time travel. He has his own view on this subject and he weaves them into a story of the far future that will sweep everyone away from this age and place them in an era that is truly different!

Our popular team of authors

Schachner and Zagat

come to a new triumph in their story of another world and another dimension. In

"The Emperor of the Stars"

we have a combination of a dimensional and interplanetary story. Do other worlds exist all about us? Do they meet our world at a tangent in space, so that if we were to meet one of these tangents we would be whirled into another dimension? If we were would we have adventures unbelievable to ordinary prosaic man? Our authors give the answers to these questions in this unusual story.

What causes us to evolve physically and mentally? What changed the original one-celled animals into a million different species, each one still changing continually? What sort of being will man eventually evolve into? Will he be all brain and no body; will he have emotions, will he be warlike?

Edmond Hamilton in

"The Man Who Evolved"

gives us a strange story of evolution with an ending that no one could guess.

The last installment of

"The Return From Jupiter"

by Gawain Edwards

is by far the best. A race is enslaved, suffers untold agonies; a world, the earth is being made habitable; an old king suffers the tortures of the damned to see his people beneath a foreign yoke. But many strange events are about to happen, in this thrilling, fast moving story of the destinies of three worlds!

AND OTHERS IN THE APRIL WONDER STORIES
ON SALE MARCH 1

The Synthetic Monster

(Continued from Page 1161)

will keep the secret to myself. I could startle the world with what I now have done, confound my fellow scientists; but what I have done so far is nothing to what I shall do. The protoplasm must be grown into cells, the cells into flesh and blood, the flesh and blood into—Ha! that shall be my triumph, my justification, when I present them with man—man

“September 10th. Failure failure

October (no date). Hurrah! it is the refraction that does it, the refraction of—. I have made flesh!

“October 2nd. Good God! the creatures I grow under the lamp. I am half afraid of them. If there is anything to the theory of a soul But that is religious superstition. They are small and harmless. I try to fashion them into human shape. But they have no entrails, or hearts and lungs. Only a mouth and a sack for food. I don't know. I dissect them, I cut them into pieces. I must find out what prevents them from growing into normal beings. I must

“January 7th. I must be careful. The one I grew yesterday escaped into the hall. Edwards must have glimpsed it. He's been talking about faces. Fortunately I caught it before he came upstairs. It is a hideous thing. I shall kill it tonight.

“Entry (no day or date). Curious, curious. It is not the same with animal flesh. Exposed to ordinary quartz rays the synthetic flesh turns back into protoplasm, into viscous jelly, runs away like oil.

“January 9th. The creature made this afternoon escaped tonight and aroused Edwards. Luckily it is small

“January 12th. Good God! it is growing. Under the light I accidentally left on.

I ought to kill it. But it fascinates me. The second one to have eyes. I have tied it for safety. It is horrible to watch it feed.

“January 14th. The thing grows, it's filling out. I feed it loaves of bread and raw meat. In a ghastly way it is becoming more human, more manlike

“January 15th. I am tired, tired. No sleep. Still the creature grows. I will keep it alive until Sunday and then I shall kill it. Yes, I shall kill it on Sunday.

“January 16th. Day and night I have been watching. I am dead on my feet. But the thing is big enough. I have turned off the light. It is securely bound. Tonight I will sleep sleep”

That is the last entry into the diary. We know what happened later. Made careless from lack of sleep, Doctor Jacobs left his laboratory and forgot to latch the door behind him. Roused from his exhausted slumber by Mrs. Reynolds' screams and my own cries, he rushed into the laboratory, bolted the door, and evidently snatched up a gleaming surgical knife and attempted to slay the creature he had created.

But the creature had broken its bonds. Hungry, all but brainless, it turned on Doctor Jacobs in its ferocity and crushed him to death in its huge shapeless arms. Not, however, before he had slashed it into bloody ribbons with the surgeon's knife. When the police finally crashed open the door and entered the private laboratory, it was to find the doctor dead and the hideous creature weak and dying on the floor.

But horrible to relate, even in its dying moments, the synthetic monster was still actuated by blind, unreasoning hunger and trying to devour the doctor. Its loathsome, blubbery mouth had already ingested his head to the shoulders

THE END.

The Green Torture

(Continued from Page 1167)

Fifty Hours!

THEN realization came, and he paused. He, Dr. Thorne, who had already been hailed as the savior of his country was now its betrayer. He, who had supervised the construction of the great broadcasting machine which was to make helpless the enemies of his country, was now about to make it useless.

His hand dropped from the button, and clenched by his side. Rather than do that he would cast himself upon those deadly prongs.

And yet, even as the thought came to his mind, he knew that he could never approach the thing. His eyes fixed upon the green light and a horrible fear in his heart, he backed slowly away.

* * *

The man lay huddled in a corner, staring—fascinated by the point of green. It would get him now. Time after time he had forced his failing body into action. There had been periods of calm when he had paced slowly along the endless wall until his feet were abraded and sore; there had been periods of madness when he had lurched to right and left, bumping and bruising himself. But he had grown weak. He had eaten the food, and no more had come.

For an interminable time he had fought off drowsiness. In spite of all his efforts his eyes would close. He had counted sixty times sixty, and had dozed—warned by a sixth sense he had awakened to a green light very near, had leaped up in terror, had rushed headlong against the unyielding wall, had sunk down helpless. It would get him now.

The green light grew and grew. It became immense—all encompassing. The steady whirr grew louder and louder. With a piercing pain in his side, he was sinking—falling headlong into a great, green, roaring void—down—swiftly down . . .

Sunlight on a white coverlet, bending figures, and:

“Feeling better, Doctor?”

Thorne turned his head upon the pillow. He recognized the voice of Rand, his assistant; and strove to speak.

“Please lie quietly. You are in a hospital, and you are all right.”

Thorne stirred uneasily. His body was very sore—especially one side. He wet his lips with his tongue.

“Please don’t try to talk. I will tell you everything that happened. Because of your capture the attack was made ahead of schedule, and it was a glorious success. When they recovered, they begged for peace at any terms. The war is over!”

Thorne smiled weakly. He was very happy. There were other things he wanted to know, however. He opened his mouth, but the other continued.

“Well, an air squadron was sent over right away because the first thing everybody wanted to do was to find you, if you were still alive; and I went along with them, of course. When we got there they took us to a big house, and in the cellar we found you. You were all rolled up in a corner, and right beside you was the strangest machine I have ever seen. Three prongs on the front of it had pierced your side. A sort of iron belt around your waist was all that kept it from killing you. But with that and the radio paralysis on top of it we thought you were surely gone, and I congratulate—”

Thorne’s eyes were wide with wonder. “But the prongs—the poison?” he whispered.

“Poison? Nobody saw any poison. The prongs were painted green, but why anybody should want to paint them we couldn’t imagine. Maybe—”

Thorne closed his eyes, and sighed, then he laughed brokenly, triumphantly . . .

“Of course he didn’t want to kill me,” he muttered, “the devil, the clever devil!”

And nobody knew what he meant.

The World Without Name

(Continued from Page 1101)

the detective who had been sleeping in the chair by the door of Steinhilde's laboratory standing over him with clenched fists. White stared at him dazedly and gingerly felt the bump on his throbbing head.

"I said, where's my gat!" The detective was obviously in a rage. "What kind of a shenanigan business is this, anyway?"

White struggled to a sitting position and swayed there grinning feebly as he pulled something from his pocket.

"I even saved the kitten," he observed. "Steinhilde said it was unlucky. I say it was the luckiest thing that ever happened to us."

The detective spat wrathfully. White's laugh was shaky.

"You're drunk!" accused the detective, shaking his fist. "Listen, you cheap bum, you get my gun back here pronto, or I'll run you in!"

Steinhilde, who was lying sprawled out nearby, struggled to his feet at the threat and pulled out his wallet.

"Here, Officer," he mumbled, extracting a fifty dollar note. "Take this and buy yourself a new gun. Forget about us."

The detective frowned and muttered, but finally accepted the money and moved away. He paused at the door.

"How about them ashes in the ball?" he demanded.

"Wood ashes from the torture fire to tell them when our set started to receive," explained Steinhilde wearily.

The detective still hesitated, then opened the door.

"I know one thing," he declared in parting. "You birds better sober up and get at it now. One peep about any disturbance around here tonight, and you'll find the wagon backin' up to the door."

* * *

Neither White nor Steinhilde paid any attention. They were wrapping Josef in an old blanket and started for the door with him. White had already phoned for a taxi. Outside, the storm was breaking. The clouds overhead had parted to reveal a bit of black velvet sky in which the planet Mars glowed as brilliantly as some rare, flawless jewel. Steinhilde shook his fist at it.

"Curse and rave, you fiends!" he cried, swaying unsteadily. "Struggle for your lives, rot and die on your dying world! Send out your A A A O U K till Doomsday and be damned! Our set is destroyed. You'll never get through here!"

He collapsed suddenly beside Josef, while White dashed back to phone for an ambulance instead of a taxi.

THE END

The Return From Jupiter

(Continued from Page 1091)

ing the Pleidans to assemble. But the woman from Tellus was too quick. Her followers dashed in and swooped down among the space-craft from every side, slashing, cutting, thrusting. The Pleidan soldiers, bewildered by this return to hand-to-hand fighting, having no equipment or training for it, could do little but run among the attackers, or mill in groups of badly frightened men, surrounded by screaming, half-crazed women armed with kitchen knives.

Into the thick of this fearful maelstrom of battle went Nina, her presence serving to spur the Neinans to even greater fury and valor.

But Nina knew that the battle was not yet over, even though the Pleidian soldiers appeared unable to draw themselves together in fighting trim. With a small handful of militants she turned from the general melee and made her way as rapidly as possible to the space car that sheltered Salvarius Carde.

He saw her coming, and with a shout ordered the heavy iron door closed. The Neinians had almost reached him before the order could be obeyed, but when they arrived there was nothing left to do but beat helplessly against the tough metal of the ship and scream their defiance.

It was while matters were thus that Salvarius Carde sprung his trump. Skeleton crews had remained in all the fighting ships at the edges of the landing place. Quickly he ordered them to close up.

Nina saw this move, and had a premonition of disaster. In the middle of the square the Neinians were still struggling furiously. It was clear that if matters were left in their hands they would be victorious.

But matters were not to remain so. Suddenly there spurted from the sides of the fighting cars the same withering flame that had earlier attacked buildings and burned the very air at the sides of the landing field. This time, however, it was directed inward, against the melee of hand-to-hand fighters among the transports. Salvarius Carde had decided to destroy even his own soldiers and machines to reduce the Neinian mob.

The flames leaped out, passed into the struggling crowd with a furious hissing

sound. The air was suddenly filled with black smoke, the sickening smell of burning flesh. Nina, in precarious safety close by the flagship of Salvarius Carde, marveled that there was no crying out, no screams or groans of agony. It was as if the flames, coming so quickly, had seared into the throats of the victims the cries of pain or anger or reproach they might have uttered.

An instant only the fire leaped out and covered the landing space. Then it was shut off, but Nina, after one glance, could not bear to look at the shambles it had left. Half a minute earlier the area had been full of struggling humans, the squat, awkward, cruel people of Pleida and the graceful, winged creatures of the satellite. Now it was like a square of fly-paper on which thousands of flies had given up their lives. Most of them were dead, curved by the flame into innumerable grotesque postures. Some still moved, uttering shrill cries, but they had lost all semblance to humanity; were like unearthly lizards, burned beyond recognition, unable themselves to comprehend what had happened to them, what was happening, groping with stumps of hands, writhing in oceans of pain too great and deep to survive in.

(To be Concluded)

What Is Your Knowledge Of Science?

Test Yourself By This Questionnaire

1. What is a proposed method of descending from space to a planet's surface in order to land? (Page 1065)
2. What is the name and orbital period of the largest of Jupiter's satellites? (Page 1071)
3. What is "mass defect"? What is Millikan's belief about it? (Page 1080)
4. What is the operation of a photoelectric cell? (Page 1127)
5. What is the modern scientific conception of the nature of thought? (Page 1133)
6. What was the process of evolution of the amoeba to a more complex form of life? (Page 1137)
7. What is protoplasm? (Page 1161)
8. Why do astronomers believe that there may be a planet closer to the sun than Mercury? (Page 1103)



Science Questions and Answers



THIS department is conducted for the benefit of readers who have pertinent queries on modern scientific facts. As space is limited we cannot undertake to answer more than three questions for each letter. The flood of correspondence received makes it impractical, also, to print answers as soon as we receive questions. However, questions of general interest will receive careful attention.

ASSOCIATE SCIENCE EDITORS

ASTRONOMY
 Professor Samuel G. Barton
 Flower Observatory, University of Pennsylvania.
 Dr. Clyde Fisher, Ph.D., LL.D.
 Curator, The American Museum of Natural History.
 Professor Willem J. Luyten, Ph.D.
 Harvard College Observatory.

Professor Felix W. Pawlowski,
 M. & E.E., M.S.
 Department of Aeronautical Engineering, University of Michigan.
 Professor John E. Younger,
 B.S., M.S., Ph.D.
 Dept. Mechanical Engineering, University of California.

MATHEMATICS
 Professor C. Irwin Palmer
 Dean of Students,
 Armour Institute of Technology.
 Professor James Byrnie Shaw
 University of Illinois.
 Professor Waldo A. Titsworth, S.M.
 Alfred University.

ASTROPHYSICS
 Donald H. Menzel, Ph.D.
 Lick University, University of California.

BOTANY
 Professor Elmer G. Campbell
 Transylvania College.
 Professor Margaret Clay Ferguson,
 Ph.D. Wellesley College
 Professor C. E. Owens
 Oregon Agricultural College

MEDICINE
 Dr. David H. Keller
 Western State Hospital.
PHYSICS AND RADIO
 Dr. Lee deForest, Ph.D., D.Sc.

AVIATION
 Lt. Col. William A. Bevan,
 B.S., M.S., M.E.
 Air Corps Reserve, Professor Aeronautical Engineering, Iowa State College.

CHEMISTRY
 Professor Gerald Wendt
 Dean, School of Chemistry and Physics, Pennsylvania State College.

PHYSICS
 Professor A. L. Fitch
 University of Maine.
PSYCHOLOGY
 Dr. Marjorie E. Babcock
 Acting Director, Psychological Clinic, University of Hawaii.

Professor Earl D. Hay,
 B.S., M.S., M.E.
 Head Department Mechanical and Industrial Engineering and Professor of Aeronautics, University of Kansas.
 Professor George J. Higgins,
 B.S. Aero. Eng.
 Associate Professor Aeronautical Engineering, University of Detroit.

ELECTRICITY
 Professor F. E. Austin
 Formerly of Dartmouth College.
ENTOMOLOGY
 William M. Wheeler
 Dean, Bussey Institution for Research in Applied Biology, Harvard University.

ZOOLOGY
 Dr. Joseph G. Yoshioka
 Yale University.

These nationally-known educators pass upon the scientific principles of all stories.

Seeing Stars

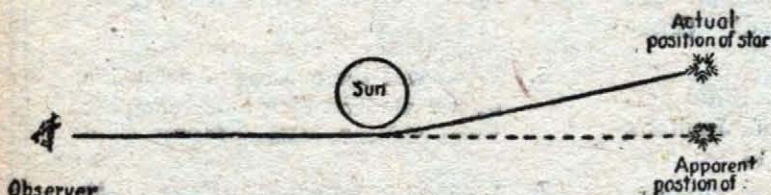
Editor Science Questions and Answers:

I have often been puzzled as to the explanation of what I have read in books and newspapers stating that light waves are attracted by heavy bodies and consequently we see stars not where they really are but in different places. I understand that this has been used in part as proof of Einstein's Relativity theories. Would you kindly explain if possible by a diagram.

Ben W. Crarle,
 Beaumont, Texas

this ray, he might not see the star at all. But due to the attraction of the sun, the ray is bent around the sun and it takes a new path as shown and reaches the observer's eye. He sees the star therefore on a line prolonged, to what is marked as the "apparent position"

Einstein himself suggested such observations of the position of stars near the limb of the sun, during solar eclipses. During the eclipse the star's light of course would be deflected by the sun, if Einstein were correct. Comparing this observed position with the position of the star in the absence of the sun, the deflection due to the sun might have been found.



Showing how an observer sees a star near the sun's limb appear in an unreal position in the skies—from "Foundations of the Universe" by Luckiesh D Van Nostrand Co.

(The following diagram is offered in part as an explanation of the displacement of stars by a heavy body. Stars that are in part hidden by the sun or near its limb, send their light rays in all direction and some of these rays as shown pass close to the sun's outer edge. Since the observer is on the earth in the position indicated he would not ordinarily see

The results of a number of eclipse expeditions have proved beyond doubt that Einstein was correct and that such deflection of light by the sun takes place. The deflection however is quite minute—the illustration here exaggerates it hundredfold; and can be detected only by the best astronomical instruments.—Editor)

What is the Earth Made of?

Editor, Science Questions and Answers:

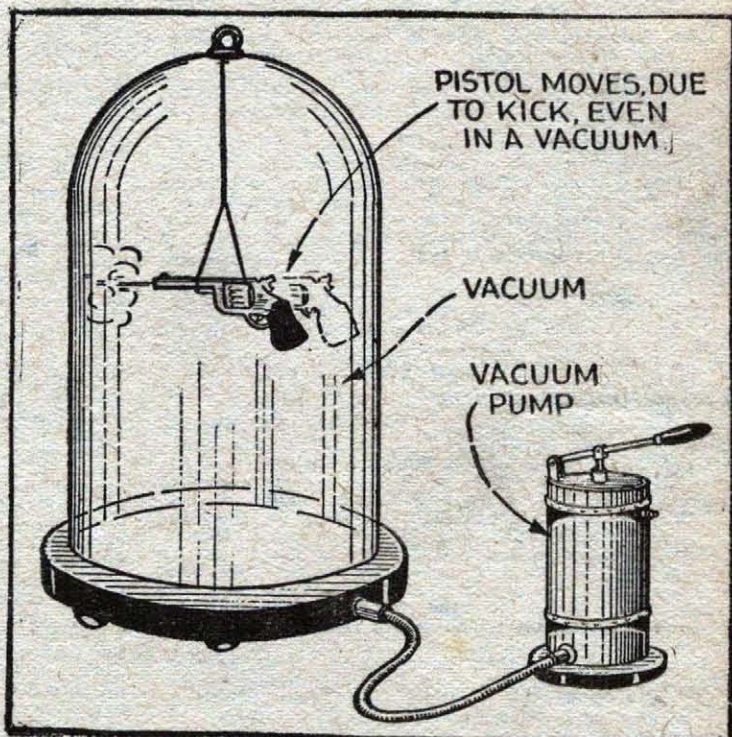
What is the earth made of? Which element is predominant? Is there more iron than aluminum in its core?

Kenneth F. Denver,
Little Rock, Ark.

(Most of the ninety known elements are only found to a small extent; in fact 99% of those parts of the earth that can be examined (that is the atmosphere, the oceans, and the crust to a depth of a few miles) have been found to consist principally of twelve elements. The following table gives the percentages of the twelve most common elements as calculated by the American scientist, F. W. Clarke:

Oxygen	50.02%
Silicon	25.80
Aluminum	7.30

Illustrating how a pistol shot off in a vacuum will kick back exhibiting the same recoil principle that is found in a rocket *in vacuo*. This experiment has been tried many times and always works—
Courtesy Aviation Mechanics.



Iron	4.18
Calcium	3.22
Sodium	2.36
Potassium	2.88
Magnesium	2.08
Hydrogen	0.95
Titanium	0.43
Chlorine	0.20
Carbon	0.18

Thus oxygen which constitutes one fifth of the atmosphere and eight-ninths of water is the most common of all terrestrial elements. In combination with silicon, the next most common element after oxygen it forms silicon dioxide or silica. This is the chief constitution of sand and quartz and also occurs in a large number of rocks and minerals. After silicon the most common elements are not iron or carbon as one would imagine, but aluminum which is found in many mineral substances, in felspar and clay. It is probable however that the center of the earth consists mainly of iron. The chief elements in living things are carbon, hydrogen, oxygen and nitrogen.—*Editor*)

The Rocket In Vacuo

Editor, Science Questions and Answers:

I have heard so much about the rocket being used in a vacuum. It is difficult to believe. Can you explain it in a simple yet convincing way?

Peter A. Lovosik,
812 Center Street,
Tarentum, Pa.

(Experiments of Goddard and others have definitely proved not only that the rocket operates in a vacuum but that it develops in the absence of air, its great

est power. The rocket is nothing more than a recoil device. The explosion of the fuel creates a mass of dense gases which tend to expand. They expand in every direction—they rush out of the exhaust and press against the wall of the rocket and so push it ahead. The best analogy is offered in the case of a pistol, indicated in the illustration. Let the charge of powder and the bullet be the rocket fuel, and the pistol itself be the rocket. When the primer cap is struck the powder explodes and becomes a gas which exerts a tremendous pressure in every direction. It does two things, it pushes the bullet out of the gun and conversely it causes a recoil in the gun itself. So the pistol suspended in a vacuum will kick back, and if it were not held by the string, it would move backward. This action, obviously is the same no matter if the air is the medium, or there is a total vacuum.

—*Editor.*)

The Planets

Editor Science Questions and Answers:

Would you be so kind as to answer the following questions in your "Science Questions and Answers Department?" What is the period of revolution around the sun of the planets in the solar system, what are their diameters and their total mass? These facts presented in a table would help me to grasp the dimensions of the solar system and the relative sizes of the planets.

Paul Bruel,
1217 A. Labelle,
Montreal, Quebec, Can.

(The following table is offered:

Planet	Period of Rev. (Days)	Diameter (Miles)	Mass (Earth—1)
Mercury	88	3,030	0.034
Venus	225	7,700	0.810
Earth	365	7,918	1.000
Mars	687	4,230	0.106
Jupiter	4,333	86,500	313.31
Saturn	10,759	70,000	93.87
Uranus	30,686	31,500	14.57
Neptune	60,188	34,800	17.24
Sun	.....	865,000	328,160.

The facts about Pluto are too indefinite to offer at present.—*Editor*)

The Reader Speaks



IN this department we shall publish every month your opinions. After all, this is your magazine and it is edited for you. If we fall down on the choice of our stories, or if the editorial board slips up occasionally, it is up to you to voice your opinion. It makes no difference whether your letter is complimentary, critical, or whether it contains a good

old-fashioned brick bat. All are equally welcome. All of your letters, as much as space will allow, will be published here for the benefit of all. Due to the large influx of mail, no communications to this department are answered individually unless 25c in stamps to cover time and postage is remitted.

From Professor Shaw

The following was received from Professor James B. Shaw of the University of Illinois, one of our associate science editors, as a tribute to Robert H. Wilson, which we have forwarded to Mr. Wilson. We can approve Professor Shaw's sentiments one hundred percent.

Dear Mr. Wilson:

I am writing just a note to express my pleasure in reading your artistic and suggestive story, "A Flight Into Time" in *Wonder Stories* for February. I am quite sure that the views you present are very sound and I think you have really had a vision of the future in essence if not in detail. Congratulations.

James B. Shaw,
University of Illinois,
Champaign, Ill.

Sex and Life

Editor, *WONDER STORIES*:

I was interested in the letter from Mr. Donald Hendrickson which appeared in your February number. He is right—"sexual education without a sensual influence is what is needed." The editorial comments are both sane and decent, unlike a considerable amount of "scientific" opinion on the subject. I think the difficulty is not so much that a solution is hard to see but that we refuse to see it because of the ancient superstition that "we can have our cake and eat it too." The human race has gotten into a frame of mind where a place is given to the sexual instinct which is not accorded any other natural appetite.

Everyone admits that hunger and thirst have a natural function necessary to the continuance of the race, as well as the continuance of the individual. All admit, at least theoretically, that indulgence in any of these appetites beyond the needs delineated by nature leads to degeneracy, clogging up of the faculties, ill-health, and an early death. On the other hand, we have in sex a function which draws tremendously upon every vital force and has ramifications and effects through the whole constitution of man beyond the exercise of any other instinct.

Yet we never stop for a moment to take a lesson from nature as to what proper exercise may be; that habitual indulgence in sex is not intended by nature is sufficiently shown by the rarity of its use in the animal kingdom, and the fact that it follows certain natural seasons. In the human race its seasonal aspect has been completely destroyed by the use of memory, imagination, and anticipation. The characteristics of a natural and healthy appetite are that the desire rises only when necessary for the continuance of life, is intense while the necessity is unfulfilled, and is completely absent from the consciousness at other times. We know perfectly well that this is the case with the appetite for food and drink, except where there is some abnormal perversion.

If we cannot see from this plain and irrefutable reasoning that the state of consciousness of civilized man, in which sex is more or less ever-present and is constantly seeking new outlets and titivations, is abnormal, unnecessary and unhealthy—well then, let's try the simple experiment of remaining continent *mentally* as well as physically for a few months and note the difference in quality and keenness of all our faculties as well as in our bodily health! The unreasoning multitude is imbued with the idea that sex may be considered as an idle amusement for personal

gratification; under the shelter of matrimony in the case of the most conventional; but the attitude is basically the same for all.

They verily take the stand that "the voice of the people is the voice of God," and that morals are determined by the prevailing ideal of the people. In that case the state of mind of the degenerate Romans in the days of the "vomitorium," which was used to expel a recently acquired meal in order to enjoy eating all over, was perfectly natural, justified, and in accordance with right thinking. Well, we know better. We know the terrible sequence of physical ills which follow upon gluttony. Civilized life has become a sex-vomitorium. I have no doubt that the Roman sybarites used exactly the same arguments to prove the hygienic quality of six or seven meals a day that our modern apostles of degeneracy use to "prove" the necessity of sexual relations *ad lib.* in order to maintain health.

Of course anyone who engages in unrestrained imaginings must ultimately either succumb or find himself in the midst of a nervous breakdown; and the advocates of sensuality point to this as proof that frequent sex relations are necessary to health! Certainly they can be made a necessity to health in the sense of the lesser two evils both unnecessarily created by ourselves. The whole race, due to the aforesaid misuse of mental powers to intensify an appetite and thereby to pervert it, has been sexually degenerating for many milleniums. Races fall as much by enervation and general slackness of mental, moral and spiritual fiber produced by sex license, as by any other cause.

And then a new race has its pioneer period, during which life is too strenuous and too dangerous to leave the time or energy for mental or physical sensuality. Then sex life is comparatively pure; but when material prosperity is reached, the animalized reasoning power begins to get in its deadly work again, and we have the old cycle of degeneracy and destruction monotonously repeated. Every race meets the "sex problem" as we are meeting it, and every race is destroyed by it because when it attempts a solution at all it is by the method of licentiousness in one form or another.

What then is the real remedy? It is implied in what I have said. Rigid self-control and the direction of the personal energies into other channels except at intervals which ought to be progressively lengthened, instead of the reverse, as the race goes higher. Any such attempt of course is useless without the mental self-discipline which is the prerequisite to it.

If the parents of today would attempt to set a proper example to the best of their powers, and at least hold up the ideal, successive generations would get further away from perversion and nearer to conformity with nature. The craving for variety, which is the cause of present unhappy relationships between the sexes, would disappear, and the finer and spiritual side of marriage, which is a sealed book to most of our people, would become the rule and not the exception. The cold truth is that nine-tenths of our people cannot see in a sex-restrained life anything but a dreary desert—so far have they fallen.

They cannot see the far more splendid things in life which come with self-control and the corresponding enhancement of all powers. Hence they do not believe in that side of life, and their dulled faculties cut themselves off from knowing it, so that there is a vicious circle indeed, a wheel rolling ever downward to the mire of irredeemable bestiality, which has engulfed every great nation, since the end of that

(Continued on Page 1189)

THE READER SPEAKS

period known in India as the Golden Age, 5000 years ago, when right practice and teaching prevailed.

Scientific fiction has its faults and much of it is as yet painfully crude, but it remains almost the last island of decency in the midst of the sewer literature of today. If you can do nothing else than keep it so, you will have rendered a service to the race by taking men's minds off their curse and obsession. Love stories by all means, where the author has sufficient talent to blend their love motive with the scientific theme, artistically and homogeneously. But love is not lust and cannot exist in the unrestrained presence of the latter, even though in reading most contemporary literature, it is sadly evident that the words are synonymous to the authors.

Victor A. Endersby,
1942 Canon Drive,
Box 1185, R. I.
Montrose, Cal.

(This letter from one of our more mature authors, an engineer, highly educated and a profound thinker is recommended to our readers for their comments. We would be glad to hear other points of view pro and con with Mr. Endersby's. He is correct in saying that modern man believes that he is distinguished from the lower animals in that his sex life is not concentrated in mating seasons, but extends throughout the year. Mr. Endersby hints that this is a sign of degeneracy. We believe his point of view is open to question.—Editor)

In a Cold Sweat

Editor, *WONDER STORIES*:

While on a week-end visit to a friend I happened to pick up a copy of the November 1930 issue of *WONDER STORIES*. That week-end was a total loss as far as my friend was concerned, but I had the time of my life. I read that number from cover to cover and then came up for breath only to yell for more.

My friend grinned and said that it was a pretty hard job to find any old copies of *WONDER STORIES* around because they were read by so many in the family that they usually dropped to pieces by the time the next number was out. But he did manage to rake up the September issue and in that I found "In 20,000 A. D."

I note that you said that the Editors were thrilled when they first read this story. You couldn't have been any more thrilled than I was. It was certainly a piece of wonderful writing, far different than anything I have ever read before. I have read Jules Verne and Wells and some stories of the future by Cummings and Farley. But those writers simply go ahead a few hundred years, a few steps farther in the development of things we already know about. Schachner and Zagat aren't afraid to leap 20,000 years into the future and picture beings and civilization that only real dreamers could imagine.

Yet so vivid do they make their ideas that one doesn't question for a moment the reality of the thing.

Gosh! I was all in a cold sweat! I know one or two farmer boys just like Tom. I can just picture them going with open mouths in the country on the other side of the space warp in the Vanishing Wood.

I'm like Oliver Twist, I want more. I see in answer to a reader you tell that you are going to have a sequel. Reserve a copy of that issue for me. It must be a masterpiece. I want to thank you for the intense enjoyment from the two issues of your magazine that I read.

Leon E. Fox,
865 Chapel St.,
New Haven, Conn.

(The sequel to "In 20,000 A. D." which appears in this issue, will probably be greeted by our readers as superior to the original story. Our authors seem to take hold of their readers in the first paragraph and refuse to release them until the last word is written.

There is really no way of telling what the man of 20,000 A. D. will be like. Certainly if we were to see our ancestor of 20,000 years ago we should hardly recognize him as belonging to *homo sapiens*. Yet the evolutionary changes that took place over the past 20,000 years will be small as compared with that

(Continued on Page 1190)



RCA INSTITUTES *trains men in* **RADIO**

MEN who need radio training... who wish to know all about radio servicing, radio telephony and telegraphy and broadcasting, can quickly obtain this valuable knowledge through RCA Institutes and its famous Home Laboratory Training Course.

Radio Instruction by America's Oldest and Foremost Radio Training School

You can study at home in your spare time or at any of the RCA Institutes resident schools throughout the country. Thorough and reliable training given you. As a student you also receive the complete RCA Institutes Laboratory Equipment... enabling you to easily solve radio problems at home in your spare time. This is the recognized way to speedily acquire the commercial knowledge and ability demanded in Radio today.

Free Book for Ambitious Men

Send for this free book... many pages of pictures and text giving full details about the Home Laboratory Training Course... the RCA Institutes Laboratory Equipment... RCA Institutes and the noted staff of instructors... that have helped thousands of men to make good in Radio.



RCA INSTITUTES, Inc.

RCA INSTITUTES, Inc.,
Dept. N.P. 3,
75 Varick St., New York, N. Y.

Gentlemen: Please send me your big **FREE** book which tells about the many opportunities in Radio and about your famous laboratory method of radio instruction at home.

Name _____

Address _____

Occupation _____

**-bring the latest
news events before
your eyes with the aid of
TELEVISION
NEWS**

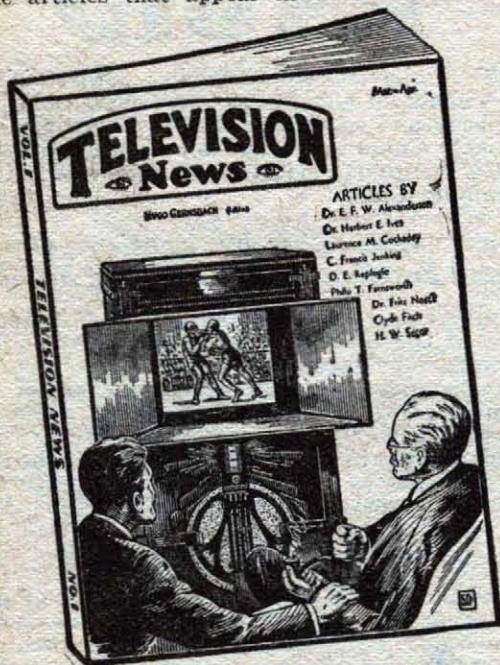
**Edited by Hugo Gernsback
Editor of Wonder Stories**

TELEVISION—radio's latest and greatest wonder is here—not tomorrow, not next year, but right NOW!

TODAY 27 stations in the United States are broadcasting Television daily, and many European countries are so doing likewise.

THESE ARE FACTS, NOT THEORY.

The first issue contains a complete Television Course, by the nationally known television authority, Mr. C. H. W. Nason. Written so simple that many practical experiments can be accomplished by the amateur. This course also simplifies many of the interesting, and unusually fine articles that appear in this issue.



On All Large Newsstands

**PARTIAL CONTENTS OF
MARCH-APRIL ISSUE**

A Word on the Future of Television—What Shall We Do for Television Programs—Television Images in Natural Colors—The Newest Television Developments—Television in the Theatre—Solving Some Television Problems—Practical Television Hints—How to Build an A. C. Television Receiver—Television Question Box, and other latest topics.

**Special Offer—Void after March 1st—
One Year—Two Dollars
(Published on the 15th of every other
month)
Single Copy—fifty cents each.**

Television News

970 PARK PLACE

NEW YORK, N. Y.

THE READER SPEAKS

(Continued from Page 1189)

period in the future. The reason is this—that change is proportional to the change in environment. Our prehistoric ancestors lived in an environment that hardly changed at all in thousands of years, hence his evolution was quite slow. But in our world our environment changes practically every generation, hence evolution is probably working on us ten or a hundred times as swiftly. Since the changes of 20,000 years will be so vast, and the mind becomes dizzy at contemplating them, our authors are all the more to be admired for daring and succeeding in their daring to present a picture of that far distant world.—*Editor*)

From a Rural Minister

In the December issue of *WONDER STORIES*, there was an author from Missouri, who stated that by the reading of *WONDER STORIES*, it had broadened his view of the universe and gave him a new theory of religion. You invited him to write again, and I looked for his letter in the January issue, but it was not in there, nor any other letter that pertained to what he was talking about.

It is to be wondered that more people do not cross swords with you because you are continually crossing their theology. Can it be possible that your magazine is not read by several ministers versed in the old school theology?

May I say here, that I am a minister of 17 years standing and a graduate of theological school. I am working among people in the Ozarks. Very few of my congregation ever were in high school. Most of them quit school when in the fifth grade. There are no telephones, very few radios, very few newspapers, and no magazines. Needless to say that their religion is very personal and in the most cases so narrow that they exclude the whole world, except their own sect, from the benefits of a future life.

It is any wonder I am starved for companionship? While I take 20 papers and magazines, yet they cannot talk back. I should like to correspond with someone, who believes in both science and religion. I do not believe there is any contradiction between them, if both are understood. In fact I believe that science will solve many of the fondest dreams of the theologian.

Religion has dreamed of a Utopia where there is no evil, no criminals and all is good and holy. It is only through science that this can come about. Religion has dreamed of the resurrection of the dead, but science through the use of adrenalin has actually brought dead persons back to life. True they were only dead a few minutes, but it is a good beginning.

I hope someone will write me even to sending some brick-bats, for that might even keep me from mentally sleeping between issues of *WONDER STORIES*.

ROY T. JOHNSON
R. F. D. No. 1
Harviell, Mo.

(We are sorry to hear that we have crossed the theology of any people. We do not intentionally antagonize any people or groups. We aim to present truth, to allow our readers to present their views of the vital questions of today and tomorrow, and in general to stimulate the mind to search out from the mists of deception, illusion, superstition and narrowness those paths of existence that will promote their personal happiness.)

In connection with this, we can say that the second letter from Mr. Newton appeared in the February issue. Mr. Newton explained his personal religion and to this we offered the following. "Religion is a personal matter that one can sum up by saying, 'If you know the truth of existence, if you have an understanding of the world, and are freed from superstition and ignorance, then any religious faith that you embrace no matter what its nature (even the lack of a faith) is the best thing for you.'"

This states quite definitely that we do not at all attempt to change anyone's religion. Both sides of the religion-science controversy, those who are die-hard atheists and those who are die-hard theologians have attacked us stating that we favor the other side. That has given us new courage to believe that our point of view is sane and liberal.

We can feel with our correspondent. It is unfortunate that such conditions do exist in our prosperous highly-developed country as Rev. Johnson pictures.

THE READER SPEAKS

We venture to state however that the publication of this letter will entirely remove Rev. Johnson from his intellectual isolation. We know that a great number of our readers will be happy to correspond with him. The best of luck, and let us hear from you again, Reverend.—*Editor*)

Steering a Rocket

Editor, WONDER STORIES:

I am an ardent reader of our magazine *WONDER STORIES*, also *WONDER STORIES QUARTERLY* and *AVIATION MECHANICS* and have found *WONDER STORIES* best of all. Your stories are coming in now, your February issue was great. Glad to see that a sequel to the "Rescue From Jupiter" is on the way, but I am puzzled over how you could turn a rocket ship in space. Could you help me out on this? Below are the best stories since June.

Excellent

1. The Outpost on the Moon.
2. Dust of Destruction.
3. The Synthetic Men.
4. Death From the Seas.
5. The Satellite of Doom.
6. The Struggle for Venus.
7. From the Earth to the Moon.
8. The Murders on the Moonship.
9. A Subterranean Adventure.
10. The King of the Black Bowl.
11. The Warlord of Venus.

Good

1. The Time Valve.
2. The World Without.
3. The Sleeping War.
4. Lords of the Deep.
5. The Invulnerable Scourge.
6. The Time Annihilator.
7. The House in the Clouds.
8. Hornets of Space.
9. A Flight Into Time.
10. The Soulless Entity.
11. The Warlord of Venus.
12. The Flaming Cloud.
13. Marooned in Andromeda.
14. The Lizard Men of Buh-Lo.
15. The Empire in the Sky.
16. The Man Who Laughs.
17. The Radium Master.
18. When the Moons Met.
19. The Martian Revenge.

Poor

1. The Tragedy of Spider Island. (No science)
2. The Air Plant Men.
3. The End of Time. (You have too many Time stories)

4. The Great Transformation.
 5. The City on the Cloud.
- P. S. More Interplanetary stories.

Walter Kohler,
44 Prospect Terrace,
E. Rutherford, N. J.

(It is some time since we have printed a tally of readers' preferences of stories. The list seems quite complete and inclusive.)

The turning of a rocket in space will have to be done quite gradually. Possibly, if the rocket is travelling at a speed of 5 miles per second, to effectively change its direction will take hundreds of miles of maneuvering. One way to do it is to shut off some of the rockets that are firing. Thus if the rocket tubes are distributed over the rear of the ship and it is desired to turn to the left, the rockets on the left will be shut off. Those on the right will continue firing and thus an unbalanced force will be created on the right. This means is suggested because the firing will be done along the axis of the ship. But as stated such a turn will be very difficult inasmuch as there is no friction to sustain the ship on turning. The analogy is akin to a skater trying to make a sharp turn on ice where there is little friction. In order to pivot he must have a point on which to maintain himself, and to halt at that point requires friction. If ice were entirely frictionless turning at all would be next to impossible.—*Editor*)

(Continued on Page 1192)

Radio Bargains!

This month we are offering a great variety of battery sets at such ridiculously low prices that they cannot fail to astonish you.

These sets are so-called store demonstration models and are not sold as brand new. However, all sets have been tested and put into good shape and we guarantee them to be in good working order.

RADIOLA 25 SUPERHETERODYNE



all dimensions are 28x19x12 inches high. Shipping weight, 55 lbs.

List Price \$265.00

YOUR SPECIAL PRICE

\$10.95

WARE TYPE T. NEUTRODYNE

This is the most economical in operation of all radio sets. The circuit is that of a REFLEXED NEUTRODYNE incorporating 3 UV-199 tubes. The mahogany cabinet is 14 in. long and 18 in. deep. This design provides room for the "A" supply of 3 dry cells, 2 "B" and 1 "C" battery. There are 2 15-plate variable condensers, 2 neutrodyne-type R.F. transformers, 2 A.F. transformers, rheostat, 2 jacks. R.F. choke, 2 tuning dials, shock-absorbing mounting for the 3 tubes. Shipping weight 16 lbs.



List Price \$65.00

YOUR SPECIAL PRICE

\$5.95

RADIOLA SUPERHET. AR-812

One of the most famous radio sets in America. This set placed on a table, the battery switch turned to "on," and music will be heard—without an outdoor antenna; it works with a loop aerial built inside the cabinet. The set is super-sensitive and, in certain localities, it is possible, on the east coast, to hear west coast stations. The cabinet holds all the batteries for the six "dry-cell" tubes required. Some experimenters tune in short wave stations and use the AR-812 as the INTERMEDIATE FREQUENCY AMPLIFIER. In that way the tremendous amplification obtainable from this receiver is used to the fullest extent. A push-pull switch (center) turns the set on and off; another, (lower left) cuts in either one or two stages of A.F. amplification. Although the cabinet is 35 inches long, 11½ deep and 11½ high, the panel of the receiver is only 19 inches long and 9 inches high. The difference lies in the two end compartments for "A" and "B" batteries. Six type UV199 tubes are required for this receiver. Dry-cell power tubes, the type "20," may be used in this set if a Naald or similar adapter is used. Shipping weight 45 lbs.

List Price is \$220.00

YOUR SPECIAL PRICE

\$10.95

HOW TO ORDER

Send Money Order or Certified Check; if you send cash or U. S. stamps, be sure to register your letter.

Send for our illustrated Radio Bargain Catalog.
A postal brings it.

Radio Trading Co.

25W West Broadway

New York, N. Y.

THE READER SPEAKS

(Continued from Page 1191)

A Vision of the Future

Editor **WONDER STORIES**:

Please permit me to throw this little monkey wrench into the discussion about time travelling. Let me state that I think that time travel is possible, though not for anything in the physical state. But here is one experience:

I was standing on the balcony of a midtown hotel in New York, contemplating the throng of traffic below me, when suddenly I felt the presence of a second personality inside my mind. A picture formed itself which transformed the automobiles into bugs and a voice asked: "Are they?" I answered "No" and envisioned the inside of a car in my mind, forming pictures of the different parts and their functions. Then I asked: "Who are you?"

Another picture formed itself. I saw a wide country with here and there a high spire and lots of small bungalows dotted through the park-like landscape. Now and then a big airship passed overhead. On my questioning how they worked, I was shown the inside of a ship. It was of all metal construction and as solid as a battleship. Passengers were in cabins and lounges as on a liner of today. Big cargo spaces were filled with grain and piece goods.

The engine central was a small room in the center of the ship with a box on a insulated table in the center, surrounded by coils and bulbs. Inside that box was a cube of material around which a purple glow undulated. The navigating room was simple—in the nose of the ship with wide windows and switchboards between. One man was standing watch and he had a easy job as everything was automatic. Lift and propulsion was from heavy plates in the hull.

My guide tried to explain their action but I'm afraid it was a bit over my head. The lift plates for instance were on the topside of the ship and my guide explained that gravity was not a pull but a push and shielding from that push provided lift and propulsion. It had something to do with lines in space. He then took me to one of the big buildings, covering about ten acres and reaching more than 5000 feet in height with an astronomical observatory on top. But allow me to describe my guide. A man of seeming middle age, healthy and agile as a sleek cat, clad in a silk-like tunic and nothing else. We met some women, too, and they were dressed the same, only their form and bobbed hair distinguished them. In that building we went up an elevator and came out into a wide hall filled with cases and exhibits of which my guide seemed to be the guardian. It was an historic museum.

He led me to a case of rifles and inquired the use of them. I explained and requested that the part showing the stamp on the barrel be cleaned. I pointed to the year 1916, it was a German Mauser, and named the year 1928 as the present whereon he pointed out to me a card bearing the sign 1600-1700 B. F. and pointed out to me a card bearing the sign 16-12-4532. When I asked how he could travel in time I was shown a room in one of those bungalows where my mentor's body lay in deep sleep. We then went back to my time and I showed him phases of our life, our modes of transport and manufacture, our social life and customs, monetary systems, justice and government, international relations, wars and peace, the different creeds and religions, the geographic configuration of the continents.

I went to the public library and looked up a lot of reference works and nearly drove the attendants mad with my rapid-fire demands. One girl asked me why I wanted so many different books and only looked at certain pictures. When I told her that was just it, she gave me a queer look but thought it better to humor me. In that manner I gave all the information I could to my guide and which by now I don't doubt, fills a ponderous volume; as my mentor was the typical professor.

It was a crowded afternoon. I have put down here less than one-tenth of all I saw and experienced; and now it seems all a dream, but was reality itself whilst it lasted. I asked quite a lot about time travel and gathered that material things can not be transported through time as it is possible to put material things only through a fourth dimension, where it is possible to go no farther than a hundred years. For greater distances one has to go through the fifth dimension, which is purely mental.



ATLANTIC CITY'S
NEWEST CENTRALLY LOCATED
FIREPROOF HOTEL

HOTEL LUDY

SOUTH CAROLINA AVE.
AT THE BOARDWALK

\$2.50, EUROPEAN PLAN
\$5.00, AMERICAN PLAN

GARAGE ATTACHED

WIRE PHONE - WRITE R. B. LUDY, M. D.

SONG WRITERS

SONG REQUIREMENTS
of
TALKING PICTURES



Advance Royalty Payments,

New Talking-Picture Song requirements, etc., fully explained in our Free instructive book. Writers of Words or Music for songs may submit their work for free examination and advice. Past experience unnecessary. We revise, compose, arrange music and secure Copyrights. Our modern method guarantees approval. Write Today—Newcomer Associates, 1678-B Broadway, New York, N. Y.

RADIO ENCYCLOPEDIA

"A Gold Mine" of Facts

INDISPENSABLE RADIO REFERENCE BOOK—Contains over 1,980 definitions—649 photographs, drawings, diagrams. All radio circuits described and illustrated. THE ONLY BOOK OF ITS KIND! Beautiful Keratol binding—stamped in gold—finely printed—size 9x12 inches—168 pages—over 25,000 sold. Special price, \$2.00. Sent C.O.D. in U. S.; Foreign and Canada, \$2.35 cash with order. Money back if not satisfactory. ISKOR PRESS, INC., 19 Park Plaza, Dept. A-331, New York.



SIZE
9x12 Inches
\$2.00



LONELY HEARTS

LET us arrange a romantic correspondence for you. Meet your sweetheart thru the world's foremost high-class social correspondence club, a club for refined lonely people. Members everywhere; strictly CONFIDENTIAL, efficient and dignified service. We have made thousands of lonely people happy, why not you? Write for FREE Particulars. EVA MOORE, BOX 908, JACKSONVILLE, FLA.

I HAVE A SWEETHEART FOR YOU

THE READER SPEAKS

One fact may be interesting. The Earth had picked up a second moon at that time. One of the asteroids had fallen into the net of gravity of our planet. His time of revolution was a little more than 2 days and in reverse direction to our present moon. Also there was intercourse with Venus as the only planet with human beings in the solar system. A humanity uncounted, milleniums older than our Earth humanity. There was also another race on Earth which was not human but equivalent in every way to man, though utterly different from mankind in its aims, makeup and development. I could not quite make them out as they were absolutely outside my experience. But I was told that there were many more such races in the universe, though in other dimensions.

Time Traveller,
New York, N. Y.

A GREAT ISSUE

you will say after you have read the

WINTER 1931 WONDER STORIES QUARTERLY

As usual we offer a full length interplanetary novel

"THE SCARLET PLANET"

By Don H. Lemon

of mystery, thrills, strange women and a civilization beyond man's imagining on a strange world.

"THE MARK OF THE METEOR"

By Ray Cummings

that peerless ace of science fiction, deals with the strange happenings in interplanetary space when lust, greed, heroism and danger are mixed.

"THE MAN OF BRONZE"

By A. L. Fierst

shows the scientist on his two sides, the creator and the destroyer. This is a mystery story par excellence.

"THE HOUR THE CONQUEROR CAME"

By Edsel Newton

details a new horror that can come to mankind when terrible forces are released.

"THE MARTIAN NEMESIS"

By George B. Beattie

that rising star on the horizon of science fiction, shows with unvarnished brutality the struggle of mere earth man against the gigantic powers of nature on an alien world, and the revenge of that nature.

AND OTHERS IN THE

WINTER 1931 WONDER STORIES QUARTERLY NOW ON ALL NEWS STANDS

(Our correspondent has submitted his name with this very interesting incident but wishes it withheld. We really think that he had travelled in time, of course, in his imagination, and that his imagination is very active and intensely vivid. Naturally it is not real time travelling for we have no way of knowing that his vision of the future will be a reality.

No doubt all imaginative people have been able to more or less a degree to project themselves into another world, perhaps a world in accordance with their innermost longings. That is our method of escaping from the torments and tribulations of present day existence. Some people call this imagination, dope or an opiate, or akin to drinking liquors. Perhaps, but who can condemn it? If it enriches one's life and makes the enduring of present troubles and disappointments possible, then it has served its purpose. We are very grateful to our correspondent for this frank revelation of an unusual vision.—Editor)

(Continued on Page 1194)



The Greatest Sin of all is total IGNORANCE of the most important subject in the life of every man and woman—SEX.

AWAY WITH FALSE MODESTY

Let us face the facts of sex fearlessly and frankly, sincerely and scientifically. Let us tear the veil of shame and mystery from sex and build the future of the race on a new knowledge of all the facts of sex as they are laid bare in plain, daring but wholesome words, and frank pictures in the huge new library of Sex Knowledge.

"MODERN EUGENICS"



Everything a Married Woman Should Know—

- How to hold a husband
- How to have perfect children
- How to preserve youth
- Warding off other women
- Keeping yourself attractive
- Why husbands tire of wives
- Dreadful diseases due to ignorance
- Diseases of women
- Babies and birth control
- Twilight sleep—easy childbirth
- How babies are conceived
- Diseases of children
- Family health guide
- Change of life—hygiene
- Why children die young
- Inherited traits and diseases
- What will you tell your growing girl?
- The mystery of twins
- Hundreds of valuable remedies

- Accidents and emergencies
- Hygiene in the home
- Limitation of offspring
- The sexual embrace
- Warning to young men
- Secrets of greater delight
- Dangerous diseases
- Secrets of sex attraction
- Hygienic precautions
- Anatomy and physiology
- The reproductive organs
- What every woman wants
- Education of the family
- Sex health and prevention

Girls— Don't Marry before you know all this—

- The dangers of Petting
- How to be a ramp
- How to manage the honey-moon
- What liberties to allow a lover
- Secrets of the wedding night
- Beauty diets and baths
- Do you know that—
- How to attract desirable men
- How to manage men
- How to know if he loves you
- How to acquire bodily grace and beauty
- How to beautify face, hands, hair, teeth and feet
- How to acquire charm
- How to dress attractively
- Intimate personal hygiene
- How to pick a husband

Secrets for Men—

- Mistakes of early marriages
- Secret of fascination
- Joys of perfect mating
- How to make women love you
- Bringing up healthy children
- Fever and contagious diseases

IMPORTANT!

[This work will not be sold to minors. When ordering your book, state your age!]

Cut Price Offer

Grenpark Company
245 Greenwich St.
DEPT. WS-331
New York, N. Y.

Please send me "Modern Eugenics" SEALED in plain wrapper. I am sending you \$2.98 in accordance with your special half price offer.

My age is
Name
Address
City and State.....

TUBE SALE



Regular PAR Vacuum Tubes—100% replacement within three months provided they still light.

X201A	.....	\$0.35
X226	.....	.40
Y227	.....	.50
Y224	.....	.75
X245	.....	.50
X280	.....	.75
X171A	.....	.50
X112A	.....	.50

X250	.....	1.25
X210	.....	1.25
UX199	.....	.60
UV199	.....	.65
UX120	.....	.65
WD11	.....	.75
WD12	.....	.75

NO LESS THAN SIX TUBES SOLD AT ONE TIME

20% deposit required on all C. O. D. shipments. Tubes are positively sent within 24 hours.

GREN PARK TOOL COMPANY

Dept. W.S.-331

245 GREENWICH ST., NEW YORK CITY

Become a Reporter!



Thousands of opportunities for young men to enter the Newspaper field. Fascinating work. You will meet interesting people; interview celebrities. A famous New York reporter with twenty years of practical experience has written a whole course of journalism and reporting in six easy lessons. He shows you the short-cut to success. He tells you what to do and what not to do, to become a successful reporter. Send today for the "PRACTICAL COURSE IN JOURNALISM," by Henry John Brockmeyer of The New York Evening Post. Just drop us a Postal Card—no need to send money. We will mail you the whole set of six books and you pay the Postman \$3.00 plus a few cents for postage. No more to pay. Money absolutely refunded if not satisfied.

PRESS GUILD, Inc.

16 Murry Street

Dept. A-331

New York

Book Lovers

Ex-Libris-Book Plates

LATEST series of OLD MASTERS book-plates, reproducing antique woodcuts and engravings. Unique creations for book-lovers

who appreciate the unusual. Write for illustrated catalogue and specimen, enclose 10 cents for mailing charge. ISKOR PRESS, INC., 19 Park Place, Dept. A-331 New York, N. Y.

THE READER SPEAKS

(Continued from Page 1193)

Neither Hot Nor Cold

Editor, *WONDER STORIES*:

I have been a reader of *WONDER STORIES* since its inception and have derived more enjoyment and enlightenment from its perusal than from any other magazine in print. And the "Science Questions and Answers" Section of your magazine is the most interesting and instructive department of any magazine that I have ever read.

However, I find myself distinctly in controversy with your most estimable Editor-in-Chief, Mr. Hugo Gernsback, in regard to certain statements that he made that I will quote from his editorial, "Wonders of the Vacuum," published in the January 1931 issue. If my letter proves of general interest, I would like to have its contents and your answer published in this magazine.

The following quotation is the one alluded to in the foregoing paragraph:

"This idea is open to some controversy, for the writers have left the terrific cold encountered in open space out of their calculations. It is my opinion that if you eject a human being without protection from a space flyer, he will not have sufficient time to explode because he will probably be frozen solid instantaneously."

I disagree with the above opinion specifically in regard to the temperature of the absolute vacuum that is called space. And the following simple syllogism will illustrate my point:

Any element or chemical substance in the whole universe is either hot or cold.

A vacuum is the complete absence of any element or chemical substance.

THEREFORE: A vacuum can be neither hot nor cold.

Now, as to definitions, a vacuum, as defined in Webster's Standard Dictionary, is space entirely devoid of matter. It seems, then, that if my premises are correct, my conclusion must be correct also. And from this conclusion I have come to believe that space flyers of the future will not have to insulate against the supposed absolute zero temperature of outer space, but that they will merely have to provide a means to keep their space ships from radiating heat that they already have.

Otis A. Kittle,
Attorney-at-Law
1824 North Jackson,
Little Rock, Ark.

(There is really no fundamental difference of opinion between the views expressed in the January editorial and those of our correspondent. The difference is one only of terminology. From a strictly literal point of view empty space can be neither hot nor cold, as Mr. Kittle states. But it is useful in practice to speak of space being cold, meaning that a body in space no matter how cold it is already will radiate heat away instead of receiving it, or maintaining its *status quo*. That is, all bodies in space if they do not receive heat from any suns or planets, etc. will tend to become colder than they are. Thus space has a cooling influence.

A space flyer will of course lose heat continually by radiation, and as Mr. Kittle rightly states it will have to insulate itself against such loss. There is no doubt however that the outer shell of the ship away from the sun would ordinarily reach a temperature of almost absolute zero because it would radiate its heat away so quickly. It would not reach absolute zero because as it became colder and colder it would radiate more and more slowly and therefore it would in practice always retain some heat.

Another angle of this question is presented when we ask what absolute zero is. The answer is that it is an entire absence of heat. Since there is an entire absence of heat in empty space—it may for the purposes in question be considered at absolute zero, and if the rate of radiation of a body were to be figured the temperature limits used would be between the temperature of the radiating body and absolute zero. This question is a very interesting one and we invite the comment of our readers.—Editor)

THE READER SPEAKS

England and Science Fiction

Editor **WONDER STORIES**:

I wish to inform you of a movement recently started in Ilford, Essex, England by myself in cooperation with a fellow reader of your excellent publications, Mr. L. A. Kippin, which will certainly interest you and all your readers especially the British ones, with whom we are anxious to get into contact.

I have been an extraordinarily interested and intensely enthusiastic supporter of science fiction since I first came into contact with your earlier publications. However our new movement evolved out of a communication in **WONDER STORIES** and we soon got together and developed things which we hope will be even further developed.

Enclosed is a pull of our initial activities which I wrote for my paper, *The Ilford Recorder*. As I am a representative of this, we are at a distinct advantage as regards publicity.

I hope you will give us your support. At present our meetings are confined to the readings of the earlier examples of American science fiction and discussion upon it, but we want all English enthusiasts to support our movement and to organize similar circles in all districts so that a thriving national society for the promotion of scientific literature will gradually be evolved.

All readers whether regular or no if in sympathy with our cause are asked to communicate with me.

May we consider you as a Patron of our movement?

Walter H. Gillings,
Hon. Sec. Ilford Science Literary Circle
123 Grove Green Road, Laytonstone,
London, E. 11, England.

As the result of a letter published in a recent issue of the "Recorder," to which there was an immediate response, the inaugural meeting of the Ilford Science Literary Circle was held on Monday evening.

The club has been formed in an attempt to bring together in Ilford all local residents in sympathy with the furtherance of scientific knowledge and who themselves possess a keen interest in the progress and especially the possibilities, of scientific achievement.

Its object is "the promotion of scientific literature in Great Britain." Its members aim to popularize, locally at first, and then on a more ambitious scale, the reading of fiction into which is introduced, in an attractive manner, strict scientific fact and unlimited imagination.

"Unfortunately," said Mr. W. H. Gillings, who, in co-operation with Mr. L. A. Kippin, is the originator of the new movement, "this type of literature has never been very popular in England, apart from the works of Jules Verne and Mr. H. G. Wells. Perhaps, however, this is because of the lack of suitable authors to furnish it, for when one has read all the available material of these two writers, the supply is practically exhausted.

"But we surmounted that difficulty some time ago. The Americans, with their greater capacity for speculation, introduced it into their literature four years ago and now there are several thriving popular magazines which cater solely for the science fiction fan.

"These circulate practically throughout the world and have many enthusiastic readers in England. We are always encountering sceptical people who seem to regard us as having peculiar and rather offensive literary tastes, but we are all unanimous in that although our favourite type of story looks rather extravagant and fantastic at first sight, there is nothing more entertaining, instructive and thought-provoking than is scientific fiction.

"Their American periodicals, which, incidentally, are almost entirely devoid of the familiar Yankee slang, have evolved from humble beginnings, into a veritable feast of literature such as is unobtainable in British publications.

"Altogether, some two hundred authors contribute to them, including many medical men, a well-known explorer and several others prominent in the field of American science. Many ordinary bound volumes of this type of fiction are also published in the United States, in addition to the magazines, which are immensely popular there.

(Continued on Page 1196)

Over the Mountains from Los Angeles



Think of it! FIVE HUNDRED FIFTY-NINE MILES over rough mountainous country burning only ELEVEN GALLONS OF GASOLINE. Imagine more than FIFTY MILES TO THE GALLON. That is what the WHIRLWIND CARBURETING DEVICE does for D. R. Gilbert, enough of a saving on just one trip to more than pay the cost of the Whirlwind.

THE WHIRLWIND SAVES MOTORISTS MILLIONS OF DOLLARS YEARLY

Whirlwind users, reporting the results of their tests, are amazed at the results they are getting. Letters keep streaming into the office telling of mileages all the way from 22 to 59 miles on a gallon, resulting in a saving of from 25% to 50% in gas bills alone.

Mark A. Estes writes, "I was making 17 miles to the gallon on my Pontiac Coupe. Today, with the Whirlwind, I am making 35 5-10 miles to the gallon."

P. P. Goerzen writes: "34-6-10 miles with the Whirlwind, or a gain of 21 miles to the gallon."

R. J. Tulp: "The Whirlwind increased the mileage on our Ford truck from 12 to 26 miles to gallon and 25% in speed."

Car owners all over the world are saving money every day with the Whirlwind, besides having better operating motors. Think what this means on your own car. Figure up your savings—enough for a radio—a bank account—added pleasures. Why let the Oil Companies profit by your waste? Find out about this amazing little device that will pay for itself every few weeks.

FITS ALL CARS

In just a few minutes the Whirlwind can be installed on any make of car, truck or tractor. It's actually less work than changing your oil, or putting water in your battery. No drilling, tapping or changes of any kind necessary. It is guaranteed to work perfectly on any make of car, truck or tractor, large or small, new model or old model. The more you drive the more you will save.

SALESMEN AND DISTRIBUTORS WANTED

TO MAKE UP TO \$100.00 a Week and More
Whirlwind men are making big profits supplying this fast selling device that car owners cannot afford to be without. Good territory is still open. Free sample offer to workers. Full particulars sent on request. Just check the coupon.

GUARANTEE No matter what kind of a car you have—no matter how big a gas eater it is—The Whirlwind will save you money. We absolutely guarantee that the Whirlwind will more than save its cost in gasoline alone within thirty days, or the trial will cost you nothing. We invite you to test it at our risk and expense. You are to be the sole judge.

FREE OFFER COUPON

WHIRLWIND MFG. CO.
909-449 A Third St., Milwaukee, Wis.

Gentlemen: You may send me full particulars of your Whirlwind Carbureting device and tell me how I can get one free. This does not obligate me in any way whatever.

Name
Address
City
County State

() Check here if you are interested in full or part time salesman position.

\$5,000 WILL BE PAID TO ANYONE WHO PROVES THAT THIS

is not the actual photo of myself showing my superb physique and how the Ross System has increased my own height to 6 ft. 3 3-4 inches.

Hundreds of Testimonials. Clients up to 45 years old gain 1 to 6 in. in few weeks. No Appliances. No drugs. No dieting. First in 1907. Ross System Never Fails. Fee Ten Dollars Complete. Convincing Testimony and Particulars 5 cent stamp. Allow time for return mails across the Atlantic. G. MALCOLM ROSS, Height Specialist, Scarborough, England (P. O. Box 15).



WE MATCH PANTS To Any Suit!



Double the life of your coat and vest with correctly matched pants, 100,000 patterns. Every pair hand tailored to your measure; DO "readymades." Our match sent FREE for your O. K. before pants are made. FIT guaranteed.

Send piece of cloth or vest today.
SUPERIOR MATCH PANTS COMPANY
115 So. Dearborn Street, Dept. 578 Chicago

CLASSIFIED ADVERTISEMENTS

Advertisements in this section are inserted at the cost of ten cents per word for each insertion—name, initial and address each count as one word. Cash should accompany all classified advertisements unless placed by a recognized advertising agency. No less than ten words are accepted. Advertising for the April 1931 issue should be received not later than February 7th.

DETECTIVES

DETECTIVES Earn Big Money. Excellent opportunity. Experience unnecessary. Particulars Free. Write, George Wagner, 2190-B Broadway, N. Y.

FORMULAS

MAKE AND SELL your own products. We will furnish you any formulas. Write for our literature. Chemical Institute, 198 Park Place, New York, N. Y.

HELP WANTED

POSITIONS on Ocean Liners; Experience unnecessary. List of positions free. 292-G, Mt. Vernon, N. Y.

PERSONAL

LONESOME FOLKS! Dandy little ladies, desirable gentlemen, everywhere, will marry. Confidential, reliable. Particulars FREE. Mrs. Budd, Box 753-S, San Francisco, Calif.

ESCAPE from your lonely existence. Valuable information free. Write today. Box 128-M, Tiffin, Ohio.

SWEETHEARTS—do you want one? Are you lonely? Thousands everywhere awaiting your acquaintance. Sealed information FREE. Write today. Box 4707-S, San Francisco, Calif.

PHOTOGRAPHY

PHOTO-ENLARGEMENTS AT HALF-PRICE — 5 x 7—25c; 8 x 10—40c; 16 x 20—\$1.50 Glossy or dull finish. Other sizes proportionate prices. Send negative. Stamps accepted. Send for circular. Charles, 210 Chestnut St., Camden, N. J.

STAMPS

BARGAIN! Stamp album, about 50 stamps, 100 hinges and one perforation gauge, 15c to approval applicants only. Arkay Stamp Co., 1040 East 232 Street, New York City.

PATENTS—TRADE MARKS

All cases submitted given personal attention by members of the firm.

Information and booklet free.

Patent Office & Federal Court Practice

LANCASTER, ALLWINE & ROMMEL

PATENT LAW OFFICES

475 Ouray Bldg., Washington, D. C.

PATENTS

Write for Free Guide Book, "HOW TO OBTAIN A PATENT" and Record of Invention Blank. Send model or sketch and description of your invention for our Free Opinion whether it comes within Patent Office Rules. **RADIO and ELECTRICAL** Cases a Specialty. Prompt, Efficient Service.

PAYMENT OF FEES IN INSTALLMENTS

VICTOR J. EVANS & CO., 923 9th, Washington, D. C.

THE READER SPEAKS

(Continued from Page 1195)

"What we aim to do, however," continued the speaker, "is to make scientific fiction popular on this side of the Atlantic and create a sufficient demand for it that the English publishers may be induced to pay more attention to its development."

"An ambitious project, yet one that will merit some success, we are sure, as soon as we start the ball rolling. We enthusiasts in Ilford intend to organize a series of scientific readings and discussions and to get others in different parts of the country to follow our example. Thus, we hope, will an interest in scientific fiction grow apace, materially assisting the progress of science itself by the advancement of scientific knowledge as concerns the average man, and adding to his imagination, which, we all agree is a most valuable factor of human life."

The Circle, the "Recorder" is informed, still has room for some more members, whether or not they are familiar with scientific literature such as will be the chief subject of its activities. Especially welcome are those who are desirous of something "different" to read. Modern scientific fiction offers everything that is novel and original in literature and, whether a reader is inclined to take it seriously or no, it is at least "something new" to most people.

It has been decided to hold meetings each week.

(We believe that the English response to the science fiction movement now sweeping the world, and begun in an auspicious way by the Editor of *WONDER STORIES* many years ago, is now arriving.

England, the birthplace of H. G. Wells, is now acknowledging the meaning and the significance of science fiction and we believe that this movement begun by Mr. Gillings will spread rapidly. We want to accord it our enthusiastic support.

Of late many splendid stories have been coming out of England, men like George B. Beattie and Benson Herbert carrying on the Wells tradition. With an ever-enlarging reader interest stimulated by the Literary Circle, reaching each other through *WONDER STORIES*, and more and more Englishmen of talent turning to science fiction, we believe that old England will closely follow America in its devotion to this new art. The Circle is invited to use our discussion columns as a means of spreading their good world throughout the United Kingdom and the British Empire as a whole.—Editor)

Kiss His G-G-G-Grandchildren

Editor, *WONDER STORIES*:

Interesting as the subject may be, our ability to travel into the past or future with a time machine presents seemingly insurmountable scientific difficulties. I am excluding our present known time machine (the telescope) as unworthy of consideration. Please check my brief conclusions for possible errors.

As we go through our daily life we throw off into infinity a succession of light reflections and sound vibrations, which for sake of argument we will say outlives our earthly bodies and awaits detection by a time machine. It is logical to assume that they travel at terrific speed and do not pile up within our own atmosphere in layers like pancakes. To catch up with these emanations one would require a machine capable (!) of traveling at a far greater speed. Suppose somewhere out into space a time machine could catch up with these light and sound emanations of a certain historical time period, would it be possible to intercept as it were, lives that and action that had already transpired—the force back of it having died?

That which one would see and possibly hear would be but the empty images, and sound echoes of that which was, but is no more, only as an imprint on tide itself. To mingle with those of the past or future and take part in the life of that period would necessitate the provision of time-space for introduction of the action therein, and make allowance for the resulting action of the visits.

If one could go into the past and converse with those of the past, one could visit himself as a boy and Oh, boy how one could kick himself for the things he shouldn't have done. What a real 'kick' that would be.

Or one could go into the future and kiss his g-g-g-grandchildren before they were born and wouldn't that tickle your g-g-g-granddaughters' mothers.

N. R. Spangle
R. 6 Rowe Bldg.,
Elkhart, Ind.

(In his recent book, "The Mysterious Universe" Sir James Jeans, one of the most conservative and influential of present day scientists unconsciously lends his prestige to the possibility of time travelling. We do not create events, by which we measure time, nor in a real sense do they happen to us, according to Jeans. We happen across events and thereby we measure time by the succession of events, such as the movement of the stars. But in a real sense, we are like the fly who moves two-dimensionally across a painting. As he perceives the various parts of the painting, little by little, the fly may think that he has created that painting; but in reality we know that he is only "happening" over various part of it. If the various parts of the painting are "events" that occur to us, the analogy is complete.

We see therefore that there is no order in which events must occur, they are rather a matter of chance or probability of what part we will "happen" across, and that the future and the present exist together with the past. Our sense of time is merely: that which we have already experienced, we call the past; and what we have not yet seen we call the future, but they exist nevertheless. Now if our two-dimensional fly's progress across the painting were suddenly interrupted and we were to raise our wings and jump to another part of the painting we would have travelled in time. The subject is so vast and we are having so many of our fixed notions upset that the best we can do is to shake our heads and say, "almost anything is possible!"—Editor)



THE MYSTERIOUS UNIVERSE by Sir James Jeans, 160 pages, illustrated. Size 6 x 8. Published by the Macmillan Company, New York. Price \$2.25.

This volume, a sequel, and in the plan of the author, an addition to his *Universe Around Us* was written in order to provide some of the ground work for the construction of new philosophical theories about our universe that are in the air. "There is a widespread conviction," says Sir James in the Foreword, "that the new teachings of astronomy and physics are destined to produce an immense change on our outlook on the universe as a whole, and on our views as to the significance of human life. The question at issue is one for philosophic discussion but before the philosophers have a right to speak, science ought first to be asked to tell all she can as to ascertained facts and provisional hypotheses."

To accomplish this task of science, the author in four chapters entitled "The Dying Sun", "The New World of Modern Physics", "Matter and Radiation", and "Relativity and the Ether" presents the most modern of our knowledge of our physical universe, and in the last chapter rightly entitled, "Into the Deep Waters" he sums up this knowledge into his own symbolic picture.

It is not an easy book to read, nor are his conclusions simple to grasp. He believes that the world we live in and perceive has the same relation to reality as the shadows cast upon the wall by three dimensional objects. In other words, events that occur to us are probably only the projection on a three-dimensional screen of events in a world of higher dimensions. To that super world, we are as the earth worms are to us.

Although through our feeble sense and feebler experience it is almost impossible for us to grasp the universe in its entirety, Jeans, to sum up, believes that the universe appears as though it were the work of a master mathematician, a pure mathematician.

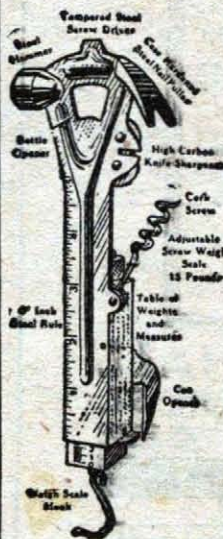
MAN AND THE STARS by Harlan True Stetson. 220 pages, stiff cloth covers. Size 6 x 9. Illustrated. Published by Whittlesley House, McGraw-Hill Book Company, New York. Price \$2.50.

As an eminent addition to the list of science books that are making astronomers of the man on the street, the present volume should find a worthy place. It

(Continued on Page 1198)

Ten Tools In One

Send
For Yours
Today!



Only

\$ 1.00

A SMALL but handy article which serves for every possible need of the all-around mechanic. Invaluable in any emergency.

An excellent combination of utilities for the household—every necessity featured: hammer, knife-sharpener, screw-driver, nail-puller, bottle-opener, can-opener, cork-screw, and weigh-scale.

Just glance at the illustration and you will see how really useful this article is. Only 10 in. high. Indispensable to autoists, campers, Boy Scouts, canoeists, picnickers, etc.

Price \$1.00 Postage Paid. Be the first in your town to own the "Ten Tools in One." Send coupon with your name, address, city and state with one dollar.

GREN PARK TOOL COMPANY WS-331
245 Greenwich Street, New York, N. Y.

Enclosed find \$1.00 for which please send me prepaid your "Ten Tools in One."

Name _____
Address _____
City _____ State _____



Screen Grid Super powerful set with nation-wide range and magnificent tone quality. New Utah Full Flux Dynamic Speaker and finest component parts. More sensitive and selective than most "big" sets! Beautiful walnut cabinet, 9 1/2 x 12 1/4 x 20 1/4 in.—entirely self contained. For 50-60 cycle 110-120 volt A.C. current. Regular \$59.50 value. Order direct now at this special introductory price \$34.65 complete with tubes—nothing else to buy. Send \$5 with order—pay balance C.O.D. Satisfaction Guaranteed. Local Agents Wanted.

SUPERADIO MANUFACTURING CO.
Dept. 563, 2356 Byron Street CHICAGO

No Wind Can Blow It Out



MYSTERY CIGAR LIGHTER
Something Different

MAKE UP TO \$25 A DAY

Showing this Scientific Marvel to Men. New Principle of Ignition. What Makes It Light? No Flint or Friction. All Guaranteed. Sample with Sales Plan, 25c Sample Gold, Silver or Chromium Plated, \$1.00. Agents, Write for Proposition.

NEW METHOD MFG. CO.
Desk SF-3 New Method Bldg., Bradford, Pa.

The Home Hotel of New York

Homelike in service,
appointments and lo-
cation . . . away from
noise and congestion,
yet but a few minutes
from Times Square . . .
garage facilities for
tourists.

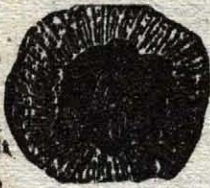
Room and Bath from
\$3 single \$4 double
500 Rooms

Home folks will
like this hotel

HOTEL

BRETTON HALL
BROADWAY at 86th ST.
NEW YORK

ALWAYS HAVE LUCK!



Duclucky in Money, Games,
Love or Business? You
should carry a pair of gems
the **MYSTIC BRAHMA
RED LIVE HIGHLY MAG-
NETIC LODESTONES.**
Rare, amazing, Compelling,
Attractive, these **LIVE
LODESTONES** are carried
by Occult Oriental people
as a **POWERFUL LUCK
CHARM**, one to prevent
Bad Luck, Evil and Mis-
fortune, and the other to attract much Good Luck, Love,
Happiness and Prosperity. Special, only \$1.97 for the
two. With free full instructions. Pay postman \$1.97
and 15c postage on delivery. Satisfaction or money re-
funded. You can be **LUCKY!** Order yours **TODAY!**

P. S. Bureau, Dept. 864, Gen. P. O. Box 72,
Brooklyn, New York.

NOTICE! We absolutely **GUARANTEE** these genuine
Mystic Brahma Lodestones are **LIVE!** Just what
you want for they are the **Real Thing—POWERFUL,
HIGHLY MAGNETIC!**

LADIES! I positively guarantee my great
Successful "Relief" Compound.
Safely relieves some of the longest,
most obstinate, abnormal cases in 3 to 5 days. No harm,
pain or interference with work. Mail \$2.00; Double
Strength, \$3.00. Booklet Free. Write today.

DR. B. X. SOUTHWINGTON REMEDY CO.

Kansas City, Mo.

LADIES My compound is fully guaranteed. Relieves
some of the longest, irregular, unnatural
cases of Periodic suffering in 3 to 5 days.
Can be safely used without pain, or interference with daily
duties. A new compound that has had remarkable reception.
Mail \$2.00. Double strength, \$3.00.

MYCO., Dept. 103

3235 So. Benton.

Kansas City, Mo.

MARRY! BIG illustrated Book with
descriptions sent in plain
wrapper for ten cents.

BONAFIDE CO.,

Dept. 58,

Kansas City, Mo.

BOOK REVIEWS

(Continued from Page 1197)

attempts and succeeds in painting the change in the
concepts of man from the days of antiquity to the
present as a romantic search after reality. Dr. Stet-
son's pioneers in astronomy, Copernicus, Kepler, New-
ton, Herschel, etc., are adventurers into the unknown
dealing with quantities of cosmic magnitude.

The book contains an historical sketch of the rise of
astronomy, as centered about the Greeks and the as-
tronomers mentioned. Astronomy up to the time of
Herschel was merely an attempt to find out what we
moderns would call elemental facts—to discover how
and why planets and stars moved, and what were the
mechanical laws of their being.

With these necessary facts as a basis, our author
gives us then, man's great leap into the unknown—
his attempts to construct a cosmogony, his fitting to-
gether of these facts and laws into systems to ex-
plain how things came to happen, and what were the
greater laws of their being. The cosmogonists—
Wright, Kant, LaPlace and the moderns Chamberlin
and Moulton—are the supreme adventurers, those who
give our universe to us not so much in detailed laws
but in gigantic rhythms and harmonies.

How was our solar system formed, how was man
formed, what is the meaning of the gigantic star
clusters and nebulae that fill outer and remote space?
These questions attacked by our modern cosmogon-
ists become to our author part of a tremendous ad-
venture into the unknown.

The last three chapters of the book, "Is There Life
on Other Planets?", "Has Life any Cosmic Signifi-
cance?", and "Has Science Displaced Religion?", are
tremendously engrossing. They are the mature and
studied opinions of the scientist with an open mind—
one whose dealings with astronomy have not blinded
him to the essential human drama of existence and
the desire of people to know how they fit into the
endless universe about us.

For a fascinating picture of the story of astronomy
and the possible meaning of all this new knowledge in
our lives, this book is recommended.

THE CONQUEST OF HAPPINESS by Ber-
trand Russell, 250 pages, stiff cloth cov-
ers. Size 5 1/2 x 8 1/2. Published by Hor-
ace Liveright, New York. Price \$3.00.

Bertrand Russell, eminent both as a mathematician
and a social philosopher, addresses himself to the
question of why we moderns are unhappy and what
we can do about it. He has written a simply con-
ceived and executed book, that is such easy reading
that one slides over, perhaps, the gems of wisdom that
lay side by side with the hackneyed and bromidic
phrases.

He attacks first the ingredients of unhappiness—
competition, boredom, fatigue, envy, the sense of sin,
persecution mania and the fear of public opinion.
Most of these causes he traces down ultimately to a
lack of an abiding life principle in men and women,
the lack of primal and elemental forces such as love,
that can fill their lives when all more transitory and
artificial things have vanished.

In his opinion we allow others to guide our vital
energies into channels that give us little innate happi-
ness—such as the business man seeking ever after
more and more wealth and conquests—and we suffer
as the result the unhappiness of fatigue, disillusion,
envy of others, fear that we may not succeed. We
have also in the chase of competition lost the art of
cultivating our inner selves and of cultivating other
human beings through the art of conversation.

He offers as his cure, in chapter segments, such
things as zests, affection, the family circle, work, im-
personal interests, and resignation. In recognizing
what one is innately fitted for, what one wishes sin-
cerely to do with his life, in cultivating interests out-
side of himself, in feeling a harmony with the world,
our author believes that happiness is possible to the
man or woman removed from physical want and re-
moved from any actual pressing unhappiness such as
illness, or an actual and acute disaster.

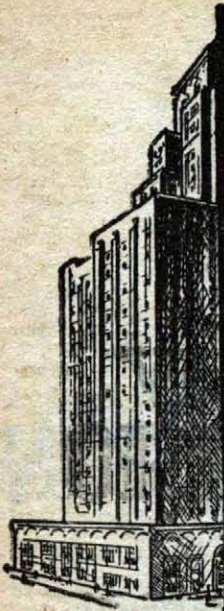


"SOUTH OF THE MASON-DIXON LINE"
is but another way of saying
"Hospitality"

HOTEL LUDY

South Carolina Avenue at the Boardwalk
Atlantic City's Newest
Centrally Located Fireproof Hotel
is South of the Mason-Dixon Line.
Its rates are as *pleasing* as its hospitality.

\$5 up Daily
American Plan \$30 up Weekly;
\$2.50 up Daily European Plan
Fireproof Garage Attached
R. B. LUDY, M. D.



The **HOTEL**
LUDY

ATLANTIC CITY, N. J.

NEW
KENMORE HALL

145 EAST 23rd ST. New York City

Free!

GYMNASIUM
SWIMMING POOL
SOCIAL ACTIVITIES
SPACIOUS LOUNGES

SINGLE ROOMS

\$1.50 UP
1. per day

with BATH \$2.00

SPECIAL WEEKLY RATES

SINGLE \$8.00 UP
DOUBLE \$16.00 UP

GEO. TURKEL-MGR.

NEW YORK'S
Smartest
700 ROOM-CLUB HOTEL
for Men & Women



Amazingly Easy Way to Learn RADIO-TELEVISION TALKING PICTURES

Don't spend your life slaving away in some dull, hopeless job! Don't be satisfied to work for a mere \$20 or \$30 a week. Let me show you how to make **Real Money in RADIO**—the **Fastest-Growing, Biggest Money-Making Game on Earth!**

Thousands of Jobs Open Paying \$60, \$70 to \$200 a Week

Jobs as Designer, Inspector and Tester paying \$3,000 to \$10,000 a year—as Radio Salesman and in Service and Installation Work, at \$45 to \$100 a week—as Operator or Manager of a Broadcasting Station, at \$1,800 to \$5,000 a year—as Wireless Operator on a Ship or Airplane, as a Talking Picture or Sound Expert—**THOUSANDS OF JOBS PAYING \$60, \$70 AND ON UP TO \$200 A WEEK!**

Learn Without Lessons in 60 Days By Actual Work—In the Great Coyne Shops

You learn **ALL** branches of Radio at Coyne—in 8 short, pleasant weeks—**NOT BY CORRESPONDENCE**, but by actual work on actual Radio, Television and Sound equipment. We don't waste time on useless theory. We give you just the practical training you'll need—in 8 weeks' time.

NO BOOKS -- NO LESSONS

All Practical Work at Coyne

Coyne is **NOT** a Correspondence School. We don't teach you from books or lessons. We train you on the greatest outlay of Radio, Television and Sound equipment in any school—on scores of modern Radio Receivers, huge broadcasting equipment, the very latest Television apparatus, Talking Picture and Sound Reproduction equipment, Code Practice equipment, etc. You don't need advanced education or previous experience. We give you—right here in the Coyne Shops—all the actual practice and experience you'll need.

TELEVISION is on the way

And now Television is on the way! Soon there'll be a demand for **THOUSANDS** of **TELEVISION EXPERTS!** The man who learns Television **NOW** can make a **FORTUNE** in this great new field. Get in on the ground-floor of this amazing new Ra-

H. C. Lewis, Pres. **Radio Division** Founded 1899
COYNE ELECTRICAL SCHOOL
500 S. Paulina Street Dept. 31-8H Chicago, Ill.

dio development! Learn Television at **COYNE** on the very latest, newest Television equipment.

Talking Pictures a Great Field

Talking Pictures, and Public Address Systems offer thousands of golden opportunities to the Trained Radio man. Here is a great new field of Radio that has just started to grow! Prepare **NOW** for these marvelous opportunities! Learn Radio Sound Work at Coyne, on actual Talking Picture and Sound Reproduction equipment.

COYNE IS 31 YEARS OLD

Don't worry about a job! Coyne Training settles the job question for life. You get **Free Employment Help** as long as you live. And if you need part-time work while at school to help pay expenses we'll gladly help you get it. Coyne is 31 years old! Coyne training is tested—proven beyond all doubt. You can find out everything absolutely free. Just Mail Coupon for My Big Free Book.

H. C. LEWIS, President
Radio Division, Coyne Electrical School
500 S. Paulina St., Dept. 31-8H Chicago, Ill.

Send me your Big Free Radio Book and all details of your Special Introductory Offer. This does not obligate me in any way.

Name.....

Address.....

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



Get into a Dignified Profession!

Become a full-fledged chemist!

**Unlimited Possibilities!
Fascinating Work!
Immense Opportunities!**

**Previous Experience
Not Needed**

ANYONE WHO CAN READ AND WRITE can study Chemistry through our simply prepared course. You don't need a higher education, and you don't need any previous experience or preparation. Chemistry is not harder to understand than electricity or radio. Just plain sense and ordinary observation powers.

Laboratory Outfit Free

THE COMPLETE CHEMICAL OUTFIT and APPARATUS supplied to you as part of your Course, without extra charge, makes you the owner of a laboratory, containing all the materials and instruments used by a full-fledged chemist. This working kit, which is shipped to you at the outset of the course becomes your permanent property. It is a sturdy fitted wooden cabinet containing over 100 pieces of laboratory apparatus and chemical supplies. With these materials and equipment you will have in your own home and always at hand, a compact, complete working chemist's laboratory, which you will use constantly not only in your experiments during the course, but also in your after work as a chemist.

**We Can Teach You
At Home**

Our faculty knows just how to mold you into a skillful laboratory worker.

Chemical Institute of New York, Inc.
Home Extension Division
19 Park Place, New York, N. Y.

Please send me at once, without any obligation on my part, your Free Book "Opportunities for Chemists," and full particulars about the Experimental Equipment given to every student.

NAME
ADDRESS
CITY STATE.....
WS3

THE HEAD OF OUR STAFF IS DR. T. O'CONNOR SLOANE, scientist, engineer and author of wide repute. He has had more than fifty years of teaching experience. Our course fits you for an immediate position in a chemical laboratory, and you do not have to give up what you are doing now to learn it. During evenings and week-ends you can work at home on the fascinating experiments and the delightfully simple but comprehensive lessons. A personal tutor is always ready to help you over difficulties and to answer all your questions. Most important of all—the teaching you receive is practical. You can actually use this knowledge to make money, as thousands have done before you.

**More Money in Chemistry
Than in Any Other Business**

CHEMISTS ARE WELL-PAID MEN. Not only will our training help you to get a better job, but a worth-while start on a new level. You can patent the work of your hands and your brain, and perhaps make millions of dollars on a new chemical discovery.

Every day the newspapers and magazines are full of news items reporting new chemical discoveries—in mining, in electricity, in food-stuffs, in sanitary and medicinal appliances, in paper-making, rubber, steel, iron, dye-stuffs, textiles, in fact in every well known industry—and behind each of these discoveries stands a well-trained chemist who knew how to take advantage of opportunity!



T. O'Connor Sloane
A.B., A.M., Ph.D.,
LL.D.

No Exaggerated Claims

THE INSTITUTE DOES NOT CLAIM that every chemist makes millions, nor do we guarantee that you will immediately get a job paying \$10,000 a year. But many have done it, and there is no reason why you can not

do it too. Often enough you read or hear about men who have found the road to fame, fortune, position, and the highest recognition, from small, inconspicuous beginnings, and you wonder how they got the "lucky break." Why, you wonder yearningly, couldn't you be such a "lucky" fellow? You can be—but you have to meet luck half way.

**What These Students Have
Done You Can Do!**

"Since I have been studying with your school I have been appointed chemist for the Scranton Coal Co., testing all the coal and ash by proximate analysis."—Morlais Couzens.

"I also have some news for you. I have been made assistant chemist for the concern I am working for."
—A. G. Delwarte.

"I am now cleaner and dyer for the above named company. My salary is almost double what it was when I started the course."
—E. H. Lasater.

"If it weren't for your course I wouldn't have the job I've got now."
—George Daynes.

"Since beginning your course of study I have received an increase in my pay check, and as I progress my work becomes lighter through a better understanding."—M. G. Cole.

Get Started Today!

IF YOU WOULD LIKE TO KNOW MORE ABOUT CHEMISTRY, and if you are sincere in your desire to get out of the treadmill of job anxiety and wage dependence, if you have ambition enough to want to become a chemist, and perhaps a famous one some day, you will not wait until tomorrow to find out how to go about it.

MAIL the coupon at your left today. There is no charge and no further obligation. You will be simply asking us to write you about something that you want to know of.

CHEMICAL INSTITUTE OF NEW YORK, INC.

19 Park Place

Dept. W.S.-3

New York, N. Y.

I will train you at home

to fill a **BIG PAY** Radio Job!



Here's Proof



\$100 a week

"My earnings in Radio are many times greater than I ever expected they would be when I enrolled. They seldom fall under \$100 a week."
E. E. WINBORNE,
1414 W. 48th St.,
Norfolk, Va.



Jumped from \$35 to \$100 a week

"Before I entered Radio I was making \$35 a week. Last week I earned \$110 servicing and selling Radios. I owe my success to N. R. I."

J. A. VAUGHN
3715 S. Kingshighway,
St. Louis, Mo.



\$500 extra in 6 months

"I find I made \$500 from January to May in my spare time. My best week brought me \$107. I should have taken it long ago."

HOYT MOORE
E. R. 3, Box 919,
Indianapolis, Ind.

If you are earning a penny less than \$50 a week, send for my book of information on the opportunities in Radio. It is free. Clip the coupon NOW. Why be satisfied with \$25, \$30 or \$40 a week for longer than the short time it takes to get ready for Radio.

Radio's growth opening hundreds of \$50, \$75, \$100 a week jobs every year

In about ten years Radio has grown from a \$2,000,000 to a \$1,000,000,000 industry. Over 300,000 jobs have been created. Hundreds more are being opened every year by its continued growth. Men and young men with the right training—the kind of training I give you—are needed continually.

You have many jobs to choose from

Broadcasting stations use engineers, operators, station managers and pay \$1,800 to \$5,000 a year. Manufacturers continually need testers, inspectors, foremen, engineers, service men, buyers, for jobs paying up to \$15,000 a year. Shipping companies use hundreds of Radio operators, give them world wide travel at practically no expense and a salary of \$85 to \$200 a month. Dealers and jobbers employ service men, salesmen, buyers, managers, and pay \$30 to \$100 a week. There are many other opportunities too.

So many opportunities many N. R. I. men make \$5 to \$25 a week extra while learning

The day you enroll with me I'll show you how to do 10 jobs, common in most every neighborhood, for spare time money. Throughout your course I send you information on servicing popular makes of sets; I give you the plans and ideas that are making \$200 to \$1,000 for hundreds of N. R. I. students in their spare time while studying.

Talking Movies, Television, Wired Radio are also included

Radio principles as used in Talking Movies, Television and home Television experiments, Wired Radio, Radio's use in Aviation, are all given. I am so sure that I can train you satisfactorily that I will agree in writing to refund every penny of your tuition if you are not satisfied with my Lessons and Instruction Service upon completing.

64-page book of information FREE

Get your copy today. It tells you where Radio's good jobs are, what they pay, tells you about my course, what others who have taken it are doing and making. Find out what Radio offers you, without the slightest obligation. ACT NOW.

J. E. SMITH, President
National Radio Institute Dept. IC23
Washington, D. C.



I will give you my new 8 OUTFITS of RADIO PARTS for a home Experimental Laboratory

You can build over 100 circuits with these outfits. You build and experiment with the circuits used in Crosley, Atwater-Kent, Eveready, Majestic, Zenith, and other popular sets. You learn how these sets work, why they work, how to make them work. This makes learning at home easy, fascinating, practical.

Back view of 5 tube Screen Grkl A. C. set—only one of many circuits you can build.



I am doubling and tripling the salaries of many in one year and less Find out about this quick way to

BIGGER PAY



FILL OUT AND MAIL THIS COUPON TODAY

J. E. SMITH, President,
National Radio Institute, Dept. IC23
Washington, D. C.
Dear Mr. Smith: Send me your book.
This request does not obligate me.

Name
Address
City State

Lifetime Employment Service to all Graduates