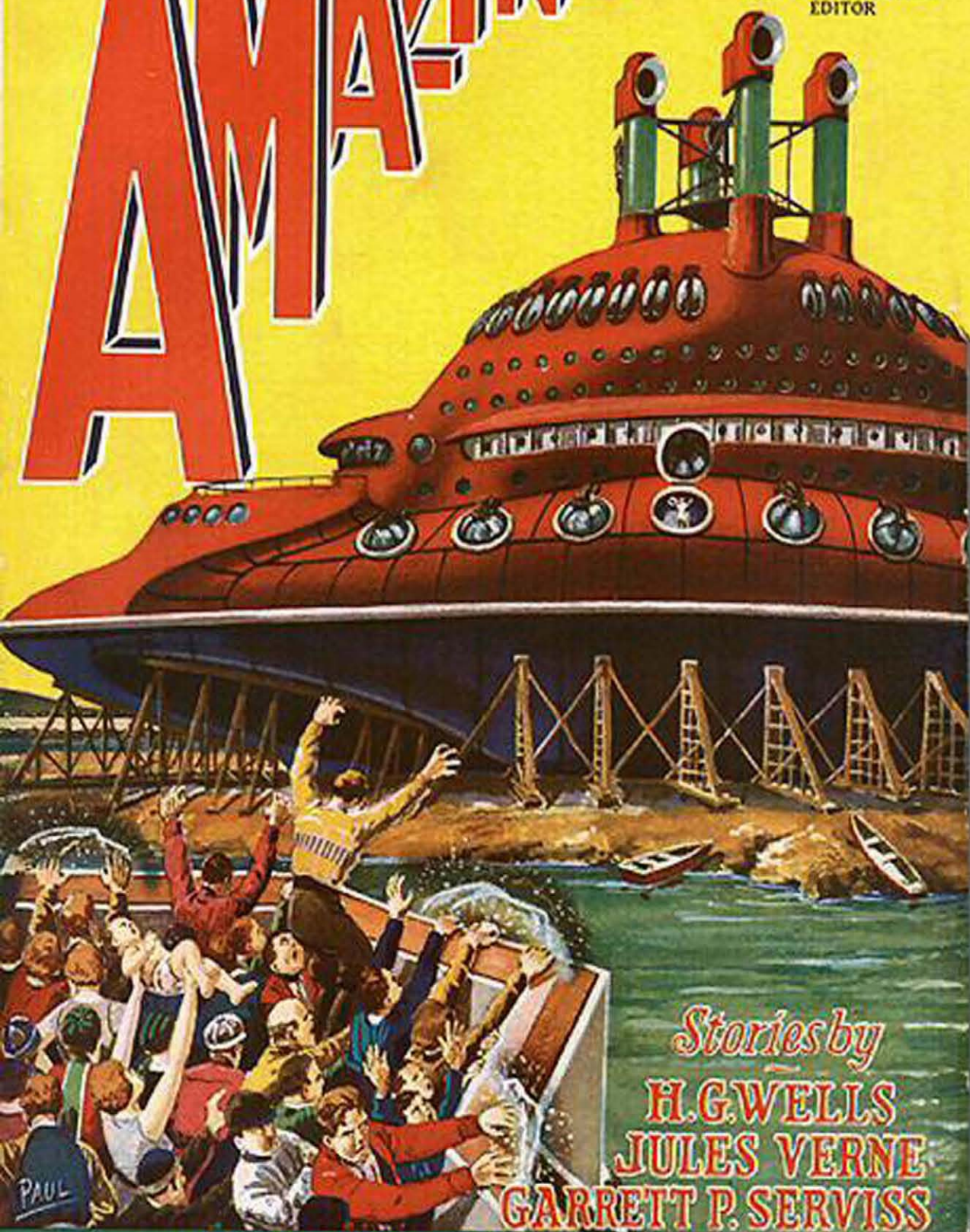


November, 1926

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# AMAZING STORIES

HUGO GERNSBACK  
EDITOR



*Stories by*  
**H.G. WELLS**  
**JULES VERNE**  
**GARRETT P. SERVISS**

EXPERIMENTER PUBLISHING COMPANY, NEW YORK, PUBLISHERS OF  
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JULES VERNE'S TOMBSTONE AT AMIENS  
PORTRAYING HIS IMMORTALITY

# AMAZING STORIES

Vol. 1 No. 8  
Nov. 1926

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### Our Cover

shows the great Ark ready for launching. It is protected from attack of the maddened population by an electrified barrier. Though warned of the coming deluge, humanity scoffed, and now pays with death the neglect to build similar arks in which to escape.

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**THE TIME ELIMINATOR**, by Kaw. This is a scientific love story. By utilizing light waves produced in the remote past, the events of preceding centuries and years are thrown upon a screen and a bride is won thereby; but how?

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**THE EDUCATED HARPOON**, by Charles S. Wolfe. This is a wonderful detective story. A highly scientific instrument is devised for purposes of crime but the criminal overlooked one detail and was caught.

**THE SECOND DELUGE**, by Professor Garrett P. Serviss. The second installment of this engrossing story. Read about the Noah of the future, who built his ark out of a marvelous light metal of the coming ages.

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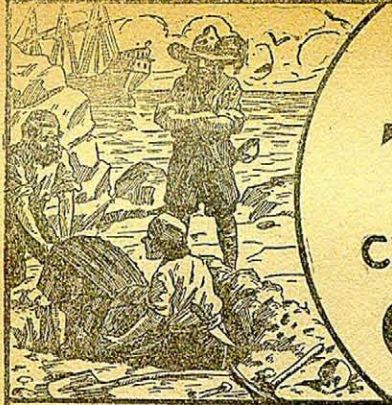
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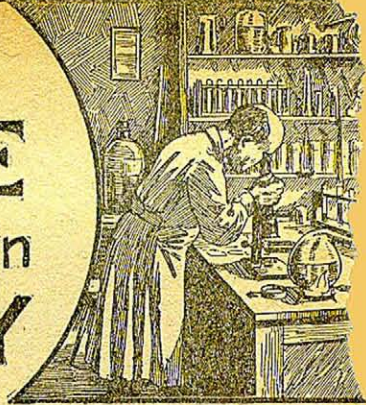
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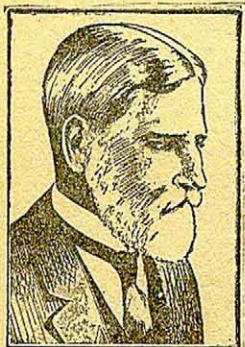
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Noted Instructor, Lecturer and Author. Formerly Treasurer American Chemical Society and a practical chemist with many well known achievements to his credit. Not only has Dr. Sloane taught chemistry for years but he was for many years, engaged in commercial chemistry work.

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I wish to express my appreciation of your prompt reply to my letter and to the recommendation to the General Electric Co. I intend to start the student engineering course at the works. This is somewhat along electrical lines, but the fact that I had a recommendation from a reliable school no doubt had considerable influence in helping me to secure the job.—H. VAN BENTHUYSEN.

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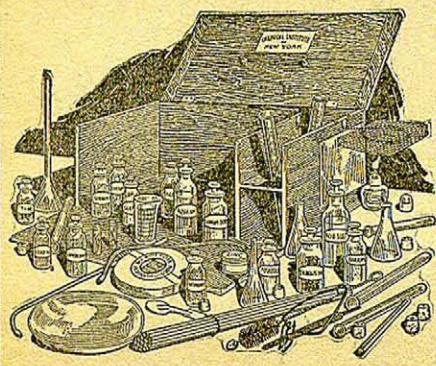
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# AMAZING STORIES

THE  
MAGAZINE  
OF  
SCIENTIFUNCTION

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C. A. BRANDT, *Literary Editor*  
Editorial and General Offices: 53 Park Place, New York, N. Y.

*Extravagant Fiction Today* - - - - - *Cold Fact Tomorrow*

## PLAUSIBILITY IN SCIENTIFUNCTION

By HUGO GERNSBACK



We are pleased to reproduce the following letter which was received from one of our readers:  
*Editor, AMAZING STORIES:*

I have just finished reading the August issue of *AMAZING STORIES* and venture to make a few suggestions which might help to improve the magazine in the future. Although, in my opinion, *AMAZING STORIES* is one of the most interesting fiction magazines published, some of the stories have such obvious scientific mistakes in them, that they seem more like fairy tales than scientifunction, and consequently appear to be out of place in your magazine.

For example, even admitting the possibility of a "fourth dimension" as set forth in Murray Leinster's "*The Runaway Skyscraper*," a little reasoning would prove that any timepiece contained in the building at the time of slipping into the fourth dimension would not run backwards, but instead would continue forward, as did all other machinery; also, several other authors, in transporting their characters from one planet to another, have never considered the difference of bacterial life upon these worlds, which would speedily cause the death of any visitors who arrived on a new planet without first having acquired immunity from the ravages of its organisms.

As an example of an excusable error, I might cite the one in "*High Tension*," by Albert B. Stuart, where the ligaments were able to stand up under the great strain exerted upon them by the highly stimulated muscles.

As a closing suggestion, I think that the magazine would be greatly improved if scientific anecdotes or paragraphs containing information which would increase the plausibility of stories in past or present issues, were set between the various stories.

Sincerely yours,

(Signed) W. F. CRIST,  
3448 Clay Street,  
San Francisco, Calif.

It is a pleasure to receive letters of this kind, because they indicate that our readers are intensely interested in the type of fiction which we publish, and also that the stories are given serious consideration. This is a wholesome sign, and we can only say that such correspondence is most welcome. When the magazine is enlarged, which will be very soon, there will be a special department wherein letters of this nature will be printed and discussed.

Regarding the statement contained in the above letter, permit us to say that a writer of scientifunction is privileged to use poetic license, the same as is the writer of any other fiction story. There is rarely a story of this type so perfect

as to pass muster with all of its facts, the general theme, and many other points.

For example, even in the best-written fiction stories you will notice the characters converse in rather extraordinary language. This is the so-called fiction language and is not generally used in real life. Open almost any first-class magazine and, if you stop to think for a second, you will realize that human beings do not use the flowery language that the characters do in fiction. The same is true of scientifunction in another respect, where authors often take poetic license, sometimes disregarding true scientific facts, although still retaining enough scientific accuracy to make the plot or story seem probable and at the same time interesting.

Referring to Murray Leinster's "*The Runaway Skyscraper*," our correspondent is probably correct as to the timepieces. But why pick on the timepieces? If we grant the fourth dimension, we will have to grant the rest of the—to us—queer things supposed to exist on this higher plane, and if we do not grant any, then we had better not read the story at all. Because of the assumption that a century of time can run backwards, the author naturally must make everything run backwards.

As to the criticism of bacterial life on other worlds, we believe it was H. G. Wells, who first pointed out this danger in transporting living creatures from one world or planet to another, but at best this only is a theory. There is nothing known about bacterial life in other worlds, but it is certain that if explorers ever will travel from one planet to another, this will be taken into consideration, and they will be inoculated, just as travelers now are inoculated when traveling from northern to tropical zones, and vice versa.

But why stop at the bacterial danger? There may be far more deadly things experienced in travelling from one planet to another than we know of today. Professor Millikan's researches recently showed, for example, that his Cosmic Ray, which seems to abound in extra-terrestrial space, is far more deadly than anything we know of. He has found that the Cosmic Ray can pierce solid lead six feet in thickness, whereas the ordinary X-ray, which is itself deadly enough, is stopped by a thin sheet of lead. The harm which these rays might do to an interplanetarian traveler, we are loath to think of. What they might be, for instance, on the moon, makes one shudder, because the moon having no atmosphere, any poor human being would probably be killed immediately if he had not some sort of protection, which today has as yet not been invented or even thought of.

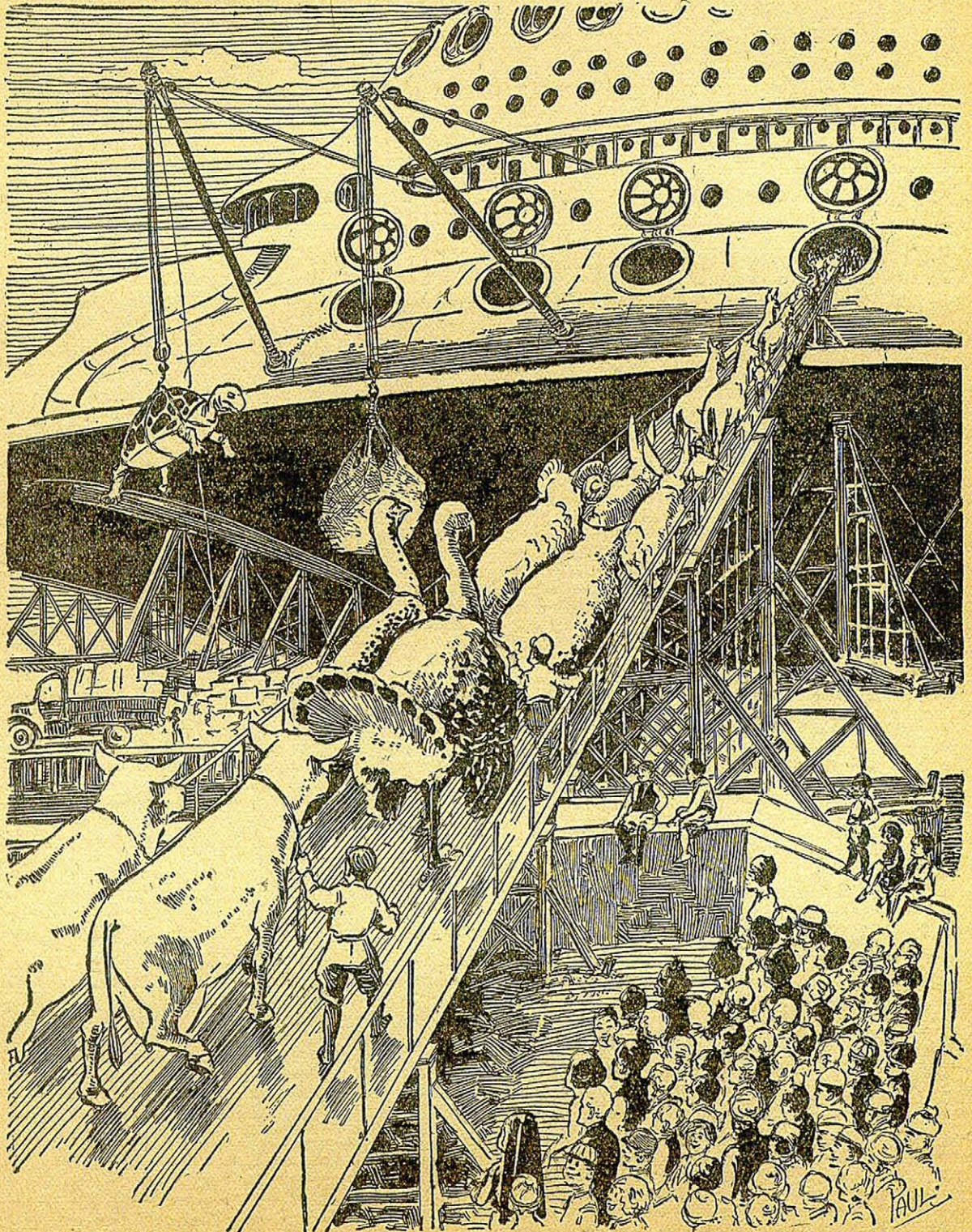
We disagree with our correspondent as to the strength of the ligaments in "*High Tension*." We believe the story of the highly-stimulated muscles to be scientifically correct. A medical authority vouches for the general accuracy of the statements of the story.

Mr. Hugo Gernsback speaks every Monday at 9 P. M. from WRNY on various scientific and radio subjects.

# The SECOND DELUGE

By Garrett P. Serviss

Author of "The Moon Metal," "A Columbus of Space," etc.



It was like a panorama of the seventh chapter of Genesis. It was the procession of the beasts. Cosmo Versal had concluded that the time was come for housing his animals in the ark. No march of a menagerie had ever come within sight of equaling this display. Many of the beasts were such as no one there had ever seen before.

## Introduction

What is here set down is the fruit of long and careful research among disjointed records left by survivors of the terrible events described. The writer wishes frankly to say that, in some instances, he has followed the course which all historians are compelled to take by using his imagination to round out the picture. But he is able

conscientiously to declare that in the substance of his narrative, as well as in every detail which is specifically described, he has followed faithfully the accounts of eye-witnesses, or of those who were in a position to know the truth of the wonderful events which they related.

(Author's Note.)

# THE SECOND DELUGE

By GARRETT P. SERVISS

## CHAPTER I

### Cosmo Versál



AN undersized, lean, wizen-faced man, with an immense bald head, as round and smooth and shining as a giant soap-bubble, and a pair of beady black eyes, set close together, so that he resembled a gnome of amazing brain capacity and prodigious power of concentration, sat bent over a writing desk with a huge sheet of cardboard before him, on which he was swiftly drawing geometrical and trigonometrical figures. Compasses, T-squares, rulers, protractors, and ellipsographs obeyed the touch of his fingers as if inspired with life.

The room around him was a jungle of terrestrial and celestial globes, chemists' retorts, tubes, pipes, and all the indescribable apparatus that modern science has invented, and which, to the uninitiated, seems as incomprehensible as the ancient paraphernalia of alchemists and astrologers. The walls were lined with book shelves, and adorned along the upper portions with the most extraordinary photographs and drawings. Even the ceiling was covered with charts, some representing the sky, while many others were geological and topographical pictures of the face of the earth.

Beside the drawing-board lay a pad of paper, and occasionally the little man nervously turned to this, and, grasping a long pencil, made elaborate calculations, covering the paper with a sprinkling of mathematical symbols that looked like magnified animalcules. While he worked, under a high light

from a single window placed well up near the ceiling, his forehead contracted into a hundred wrinkles, his cheeks became feverous, his piercing eyes glowed with inner fire, and drops of perspiration ran down in front of his ears. One would have thought that he was laboring to save his very soul and had but a few seconds of respite left.

Presently he threw down the pencil, and with astonishing agility let himself rapidly, but carefully, off the stool on which he had been sitting, keeping the palms of his hands on the seat beside his hips until he felt his feet touch the floor. Then

he darted at a book-shelf, pulled down a ponderous tome, flapped it open in a clear space on the floor, and dropped on his knees to consult it.

After turning a leaf or two he found what he was after, read down the page, keeping a finger on the lines, and, having finished his reading, jumped to his feet and hurried back to the stool, on which he mounted so quickly that it was impossible to see how he managed it without an upset. Instantly he made a new diagram, and then fell to figuring furiously on the pad, making his pencil gyrate so fast that its upper end vibrated like the wing of a dragon-fly.

At last he threw down the pencil, and, encircling his knees with his clasped arms, sank in a heap on the stool. The lids dropped over his shining eyes, and he became buried in thought.

When he reopened his eyes and unbent his brows, his gaze happened to be directed toward the row of curious big photographs which ran like a pictured frieze round the upper side of the wall of the room. A casual observer might have thought that the little man had been amusing himself by photographing the explosions of fireworks on a Fourth of July night; but it was evident by his expression

that these singular pictures had no connection with civic pyrotechnics, but must represent something of a most pronounced fatal and stupendous import.

The little man's face took on a rapt look, in which wonder and fear seemed to be blended. With a sweep of his hand he included the whole series of photographs in a comprehensive glance, and then, setting his gaze up-

on a particularly bizarre object in the center, he began to speak aloud, although there was nobody to listen to him.

"My God!" he said. "That's it! That Lick photograph of the Lord Rosse nebula is its very image, except that there's no electric fire in it. The same great whirl of outer spirals, and then comes the awful central mass—and we're going to plunge straight into it. Then quintrillions of tons of water will condense on the earth and cover it like a universal cloudburst. And then good-by to the human race—unless—unless—I, Cosmo Versál,

---

*PROFESSOR GARRETT P. SERVISS needs no introduction to you after you have read "A Columbus of Space," but here the well-known scientist-author has hit upon the effects created upon modern humanity by a second deluge. It is an impressive tale, and not a whit more improbable than the first Noachian deluge of Biblical days. Only the setting is modern, and the second great ark is, of course, vastly different from that used by Noah. Then, of course, there are a great many other things in "The Second Deluge" that Noah never even dreamt of, and that surely never happened to him. What these things are you will find out by reading this entrancing classic.*

---

inspired by science, can save a remnant to repeople the planet after the catastrophe."

Again, for a moment, he closed his eyes, and puckered his hemispherical brow, while, with drawn-up knees, he seemed perilously balanced on the high stool. Several times he slowly shook his head, and when his eyes reopened their fire was gone, and a reflective film covered them. He began to speak, more deliberately than before, and in a musing tone:

"What can I do? I don't believe there is a mountain on the face of the globe lofty enough to lift its head above that flood. Hum, hum! It's no use thinking about mountains! The flood will be six miles deep—six miles from the present sea-level; my last calculation proves it beyond all question. And that's only a minimum—it may be miles deeper, for no mortal man can tell exactly what'll happen when the earth plunges into a nebula like that.

"We'll have to float; that's the thing. I'll have to build an ark. I'll be a second Noah. I'll advise the whole world to build arks.

"Millions might save themselves that way, for the flood is not going to last forever. We'll get through the nebula in a few months, and then the waters will gradually recede, and the high lands will emerge again. But it'll be an awful long time; I doubt if the earth will ever be just as it was before. There won't be much room, except for fish—but there won't be many inhabitants for what dry land there is."

Once more he fell into silent meditation, and while he mused there came a knock at the door. The little man started up on his seat, alert as a squirrel, and turned his eyes over his shoulder, listening intently. The knock was repeated—three quick sharp raps. Evidently he at once recognized them.

"All right," he called out, and, letting himself down, ran swiftly to the door and opened it.

A tall, thin man, with bushy black hair, heavy eyebrows, a high, narrow forehead, and a wide, clean shaven mouth, wearing a solemn kind of smile, entered and grasped the little man by both hands.

"Cosmo," he said, without wasting any time on preliminaries, "have you worked it out?"

"I have just finished."

"And you find the worst?"

"Yes, worse than I ever dreamed it would be. The waters will be six miles deep."

"Phew!" exclaimed the other, his smile fading. "That is indeed serious. And when does it begin?"

"Inside of a year. We're within three hundred million miles of the watery nebula now, and you know that the earth travels more than that distance in twelve months."

"Have you seen it?"

"How could I see it—haven't I told you it is invisible? If it could be seen all these stupid astronomers would have spotted it long ago. But I'll tell you what I have seen."

Cosmo Versál's voice sank into a whisper, and he shuddered slightly as he went on:

"Only last night I was sweeping the sky with the telescope when I noticed, in Hercules and Lyra, and all that part of the heavens, a dimming of some

of the fainter stars. It was like the shadow of the shroud of a ghost. Nobody else would have noticed it, and I wouldn't if I had not been looking for it. It's knowledge that clarifies the eyes and breeds knowledge, Joseph Smith. It was not truly visible, and yet I could see that it was there. I tried to make out the shape of the thing—but it was too indefinite. But I know very well what it is. See here"—he suddenly broke off—"Look at the photograph." (He was pointing at the Lord Rosse nebula on the wall). "It's like that, only it's coming edgewise toward us. We may miss some of the outer spirals, but we're going to smash into the center."

With fallen jaw, and black brows contracted, Joseph Smith stared at the photograph.

"It doesn't shine like that," he said at last.

The little man snorted contemptuously.

"What have I told you about its invisibility?" he demanded.

"But how, then, do you know that it is of a watery nature?"

Cosmo Versál threw up his hands and waved them in an agony of impatience. He climbed upon his stool to get nearer the level of the other's eyes, and fixing him with his gaze, exclaimed:

"You know very well how I know it. I know it because I have demonstrated with my new spectroscope, which analyses extra-visual rays, that all those dark nebulae that were photographed in the milky way years ago are composed of watery vapor. They are far off, on the limits of the universe. This one is one right at hand. It's a little one compared with them—but it's enough, yes, it's enough! You know that more than two years ago I began to correspond with astronomers all over the world about this thing, and not one of them would listen to me. Well, they'll listen when it's too late perhaps.

"They'll listen when the flood-gates are opened and the inundation begins. It's not the first time that this thing has happened. I haven't a doubt that the flood of Noah, that everybody pretends to laugh at now, was caused by the earth passing through a watery nebula. But this will be worse than that; there weren't two thousand million people to be drowned then as there are now."

For five minutes neither spoke. Cosmo Versál swung on the stool, and played with an ellipsograph; Joseph Smith dropped his chin on his breast and nervously fingered the pockets of his long vest. At last he raised his head and asked, in a low voice:

"What are you going to do, Cosmo?"

"I'm going to get ready," was the short reply.

"How?"

"Build an ark."

"But will you give no warning to others?"

"I'll do my best. I'll telephone to all the officials, scientific and otherwise, in America, Europe, Africa, Asia, and Australia. I'll write in every language to all the newspapers and magazines. I'll send out circulars. I'll counsel everybody to drop every other occupation and begin to build arks—but nobody will heed me. You'll see. My ark will be the only one, but I'll save as many in it as I can. And I depend upon you, Joseph, to help me. From all appearances, it's the only chance that the human race has of survival.



"If I hadn't made this discovery they would all have been wiped out like miners in a flooded pit. We may persuade a few to be saved—but what an awful thing it is that, when the truth is thrust into their very faces, people won't believe, won't listen, won't see, won't be helped, but will die like dogs in their obstinate ignorance and blindness."

"But they will, they must, listen to you," said Joseph Smith eagerly.

"They *won't*, but I must *make* them," replied Cosmo Versál. "Anyhow, I must make a few of the best of them hear me. The fate of a whole race is at stake. If we can save a handful of the best blood and brain of mankind, the world will have a new chance, and perhaps a better and higher race will be the result. Since I can't save them all, I'll pick and choose. I'll have the flower of humanity in my ark. I'll at least snatch that much from the jaws of destruction."

The little man was growing very earnest and his eyes were aglow with the fire of enthusiastic purpose. As he dropped his head on one side, it looked too heavy for the stemlike neck, but it conveyed an impression of immense intellectual power. Its imposing contour lent force to his words.

"The flower of humanity," he continued after a slight pause. "Who composes it? I must decide that question. Is it the billionaires? Is it the kings and rulers? Is it the men of science? Is it the society leaders? Bah! I'll have to think on that. I can't take them all, but I'll give them *all* a chance to *save themselves* though I know they won't act on the advice."

Here he paused.

"Won't the existing ships do—especially if more are built?" Joseph Smith suddenly asked, interrupting Cosmo's train of thought.

"Not at all," was the reply. "They're not suited to the kind of navigation that will be demanded. They're not buoyant enough, nor manageable enough, and they haven't enough carrying capacity for power and provisions. They'll be swamped at the wharves, or if they should get away they'd be sent to the bottom inside a few hours. Nothing but specially constructed arks will serve. And *there's* more trouble for me—I must devise a new form of vessel. Heavens, how short the time is! Why couldn't I have found this out ten years ago? It's only to-day that I have myself learned the full truth, though I have worked on it so long."

"How many will you be able to carry in your ark?" asked Smith.

"I can't tell yet. That's another question to be carefully considered. I shall build the vessel of this new metal, levium, half as heavy as aluminum and twice as strong as steel. I ought to find room without the slightest difficulty for a round thousand in it."

"Surely many more than that!" exclaimed Joseph Smith. "Why, there are ocean-liners that carry several times as many."

"You forget," replied Cosmo Versál, "that we must have provisions enough to last for a long time, because we cannot count on the immediate reemergence of any land, even the most mountainous, and the most compressed food takes space when a great quantity is needed. It won't do to over-

crowd the vessel, and invite sickness. Then too, I must take many animals along."

"Animals," returned Smith. "I hadn't thought of that. But is it necessary?"

"Absolutely. Would you have less foresight than Noah? I shall not imitate him by taking male and female of every species, but I must at least provide for restocking such land as eventually appears above the waters with the animals most useful to man. Then, too, animals are essential to the life of the earth. Any agricultural chemist would tell you that. They play an indispensable part in the vital cycle of the soil. I must also take certain species of insects and birds. I'll telephone Professor Hergschmitberger at Berlin to learn precisely what are the capitally important species of the animal kingdom."

"And when will you begin the construction of the ark?"

"Instantly. There's not a moment to lose. And it's equally important to send out warnings broadcast immediately. There you can help me. You know what I want to say. Write it out at once; put it as strong as you can; send it every where; put it in the shape of posters; hurry it to the newspaper offices. Telephone, in my name, to the Carnegie Institution, to the Smithsonian Institution, to the Royal Society, to the French, Russian, Italian, German, and all the other Academies and Associations of Science to be found anywhere on earth.

"Don't neglect the slightest means of publicity. Thank Heaven, the money to pay for all this is not lacking. If my good father, when he piled up his fortune from the profits of the original Transcontinental Aerial Company, could have foreseen the use to which his son would put it for the benefit—what do I say, for the benefit? nay, for the *salvation*—of mankind, he would have rejoiced in his work."

"Ah, that reminds me," exclaimed Joseph Smith. "I was about to ask, a few minutes ago, why airships would not do for this business. Couldn't people save themselves from the flood by taking refuge in the atmosphere?"

Cosmo Versál looked at his questioner with an ironical smile.

"Do you know," he asked, "how long a dirigible can be kept afloat? Do you know for how long a voyage the best airplane types can be provisioned with power? There's not an airship of any kind that can go more than two weeks at the very uttermost without touching solid earth, and then it must be mighty sparing of its power. If we can save mankind now, and give it another chance, perhaps the time will come when power can be drawn out of the ether of space, and men can float in the air as long as they choose.

"But as things are now, we must go back to Noah's plan, and trust to the buoyant power of water. I fully expect that when the deluge begins people will flock to the highlands and the mountains in airships—but alas! that won't save them. Remember what I have told you—this flood is going to be six miles deep!"

The second morning after the conversation between Cosmo Versál and Joseph Smith, New York

was startled by seeing, in huge red letters, on every blank wall, on the bare flanks of towering skyscrapers, on the lofty stations of airplane lines, on billboards, fences, advertising-boards along suburban roads, in the Subway stations, and fluttering from strings of kites over the city, the following announcement:

THE WORLD IS TO BE DROWNED!

Save Yourself While It Is Yet Time!

Drop Your Business: It Is of No Consequence!

Build Arks: It Is Your Only Salvation!

The Earth Is Going To Plunge into a Watery

Nebula: There Is No Escapé!

Hundreds of Millions Will Be Drowned: You Have

Only a Few Months To Get Ready!

For Particulars Address: Cosmo Versál,

3000 Fifth Avenue

CHAPTER II

Mocking at Fate

WHEN New York recovered from its first astonishment over the extraordinary posters, it indulged in a loud laugh. Everybody knew who Cosmo Versál was. His eccentricities had filled many readable columns in the newspapers. Yet there was a certain respect for him, too. This was due to his extraordinary intellectual ability and unquestionable scientific knowledge. But his imagination was as free as the winds, and it often led him upon excursions in which nobody could follow him, and which caused the more steady-going scientific brethren to shake their heads. They called him able but flighty. The public at times called him brilliant and amusing.

His father, who had sprung from some unknown source in southeastern Europe, and, beginning as a newsboy in New York, had made his way to the front in the financial world, had left his entire fortune to Cosmo. The latter had no taste for finance or business, but a devouring appetite for science, to which, in his own way, he devoted all his powers, all his time, and all his money. He never married, was never seen in society, and had very few intimates—but he was known by sight, or reputation, to everybody. There was not a scientific body or association of any consequence in the world of which he was not a member. Those which looked askance at his bizarre ideas were glad to accept pecuniary aid from him.

The notion that the world was to be drowned had taken possession of him about three years before the opening scene of this narrative. To work out the idea, he built an observatory, set up a laboratory, invented instruments, including his strange spectroscope (which was scoffed at by the scientific world).

Finally, submitting the results of his observations to mathematical treatment, he proved, to his own satisfaction, the absolute correctness of his thesis that the well-known "proper motion of the solar system" was about to result in an encounter between the earth and an invisible watery nebula, which would have the effect of inundating the globe. As this startling idea gradually took shape, he communicated it to scientific men in all lands, but failed

to find a single disciple, except his friend Joseph Smith, who, without being able to follow all his reasonings, accepted on trust the conclusions of Cosmo's more powerful mind. Accordingly, at the end of his investigation, he enlisted Smith as secretary, propagandist, and publicity agent.

New York laughed a whole day and night at the warning red letters. They were the talk of the town. People joked about them in cafés, clubs, at home, in the streets, in the offices, in the exchanges, in the street-cars, on the Elevated, in the Subways. Crowds gathered on corners to watch the flapping posters aloft on the kite lines. The afternoon newspapers issued specials which were all about the coming flood, and everywhere one heard the cry of the newsboys: "*Extra-a-a! Drowning of a Thousand Million People! Cosmo Versál predicts the End of the World!*" On their editorial pages the papers were careful to discount the scare lines, and terrific pictures, that covered the front sheets, with humorous jibes at the author of the formidable prediction.

The *Owl*, which was the only paper that put the news in half a column of ordinary type, took a judicial attitude, called upon the city authorities to tear down the posters, and hinted that "this absurd person, Cosmo Versál, who disgraces a once honored name with his childish attempt to create a sensation that may cause untold harm among the ignorant masses," had laid himself open to criminal prosecution.

In their latest editions, several of the papers printed an interview with Cosmo Versál, in which he gave figures and calculations that, on their face, seemed to offer mathematical proof of the correctness of his forecast. In impassioned language, he implored the public to believe that he would not mislead them, spoke of the instant necessity of constructing arks of safety, and averred that the presence of the terrible nebula that was so soon to drown the world was already manifest in the heavens.

Some readers of these confident statements began to waver, especially when confronted with mathematics which they could not understand. But still, in general, the laugh went on. It broke into boisterousness in one of the largest theaters where a bright-witted "artist," who always made a point of hitting off the very latest sensation, got himself up in a lifelike imitation of the well-known figure of Cosmo Versál, topped with a bald head as big as a bushel, and sailed away into the flies with a pretty member of the ballet, whom he had gallantly snatched from a tumbling ocean of green baize, singing at the top of his voice until they disappeared behind the proscenium arch:

"Oh, th' Nebula is coming  
To drown the wicked earth,  
With all his spirals humming  
'S he waltzes in his mirth.

*Chorus.*

"Don't hesitate a second,  
Get ready to embark,  
And skip away to safety  
With Cosmo and his ark.

"Th' Nebula's a direful bird  
'S he skims the ether blue!  
He's angry over what he's heard,  
'N's got his eye on you.

*Chorus.*

"Don't hesitate a second, etc.

"When Nebulas begin to pipe  
The bloomin H<sub>2</sub>O  
Y'bet yer life the time is ripe  
To think what you will do.

*Chorus.*

"Don't hesitate a second, etc.

"He'll tip th' Atlantic o'er its brim,  
And swamp the mountains tall;  
He'll let the broad Pacific in,  
And leave no land at all.

*Chorus.*

"Don't hesitate a second, etc.

"He's got an option on the spheres;  
He's leased the milky way;  
He's caught the planets in arrears,  
'N's bound to make 'em pay,

*Chorus.*

"Don't hesitate a second, etc.

The roars of laughter and applause with which this effusion of vaudeville genius was greeted, showed the cheerful spirit in which the public took the affair. No harm seemed to have come to the "ignorant masses" yet.

But the next morning there was a suspicious change in the popular mind. People were surprised to see the new posters in place of the old ones, more lurid in letters and language than the original. The morning papers had columns of description and comment, and some of them seemed disposed to treat the prophet and his prediction with a certain degree of seriousness.

The servants who had been interviewed overnight, did not talk very convincingly, and made the mistake of flinging contempt on both Cosmo and "the gullible public."

Naturally, the public wouldn't stand for that, and the pendulum of opinion began to swing the other way. Cosmo helped his cause by sending to every newspaper a carefully prepared statement of his observations and calculations, in which he spoke with such force of conviction that few could read his words without feeling a thrill of apprehensive uncertainty. This was strengthened by published despatches which showed that he had forwarded his warnings to all the well-known scientific bodies of the world, which, while decrying them, made no effective response.

And there was a note of positive alarm in a doubled-leaded bulletin from the new observatory at Mount McKinley, which affirmed that during the preceding night a *singular obscurity* had been suspected in the northern sky, seeming to veil many

stars below the twelfth magnitude. It was added that the phenomenon was unprecedented, but that the observation was both difficult and uncertain.

Nowhere was the atmosphere of doubt and mystery, which now began to hang over the public, so remarkable as in Wall Street. The sensitive currents there responded like electric waves to the new influence, and, to the dismay of hard-headed observers, the market dropped as if it had been hit with a sledge-hammer. Stocks went down five, ten, in some cases twenty points in as many minutes.

The speculative issue slid down like wheat into a bin when the chutes are opened. Nobody could trace the exact origin of the movement, but selling-orders came tumbling in until there was a veritable panic.

From London, Paris, Berlin, Vienna, Leningrad, flashed dispatches announcing that the same unreasonable slump had manifested itself there, and all united in holding Cosmo Versál solely responsible for the foolish break in prices. Leaders of finance rushed to the exchanges trying by arguments and expostulations to arrest the downfall, but in vain.

In the afternoon, however, reason partially resumed its sway; then a quick recovery was felt, and many who had rushed to sell all they had, found cause to regret their precipitancy. The next day all was on the mend, as far as the stock market was concerned, but among the people at large the poison of awakened credulity continued to spread, nourished by fresh announcements from the fountain head.

Cosmo issued another statement to the effect that he had perfected plans for an ark of safety, which he would begin at once to construct in the neighborhood of New York, and he not only offered freely to give his plans to any who wished to commence construction on their own account, but he urged them, in the name of Heaven, to lose no time. This produced a prodigious effect, and multitudes began to be infected with a nameless fear.

Meanwhile an extraordinary scene occurred, behind closed doors, at the headquarters of the Carnegie Institution in Washington. Joseph Smith, actng under Cosmo Versál's direction, had forwarded an elaborate *précis* of the latter's argument, accompanied with full mathematical details, to the head of the institution. The character of this document was such that it could not be ignored. Moreover, the savants composing the council of the most important scientific association in the world were aware of the state of the public mind, and felt that it was incumbent upon them to do something to allay the alarm. Of late years a sort of supervisory control over scientific news of all kinds had been accorded to them, and they appreciated the fact that a duty now rested upon their shoulders.

Accordingly, a special meeting was called to consider the communication from Cosmo Versál. It was the general belief that a little critical examination would result in complete proof of the fallacy of all his work, proof which could be put in a form that the most uninstructed would understand.

But the papers, diagrams, and mathematical formulæ had no sooner been spread upon the table under the knowing eyes of the learned members of the council, than a chill of conscious impuissance ran through them. They saw that Cosmo's mathe-

matics were unimpeachable. His formulæ were accurately deduced, and his operations absolutely correct.

They could do nothing but attack his fundamental data, based on the alleged revelations of his new kind of spectroscope, and on telescopic observations which were described in so much detail that the only way to combat them was by the general assertion that they were illusory. This was felt to be a very unsatisfactory method of procedure, as far as the public was concerned, because it amounted to no more than attacking the credibility of a witness who pretended to describe only what he himself had seen—and there is nothing so hard as to prove a negative.

Then, Cosmo had on his side the whole force of that curious tendency of the human mind which habitually gravitates toward whatever is extraordinary, revolutionary, and mysterious.

But a yet greater difficulty arose. Mention has been made of the strange bulletin from the Mount McKinley observatory. That had been incautiously sent out to the public by a thoughtless observer, who was more intent upon describing a singular phenomenon than upon considering its possible effect on the popular imagination. He had immediately received an expostulatory despatch from headquarters which henceforth shut his mouth—but he had told the simple truth, and how embarrassing that was became evident when, on the very table around which the savants were now assembled, three despatches were laid in quick succession from the great observatories of Mount Hekla in Iceland, the North Cape, and Kamchatka, all corroborating the statement of the Mount McKinley observer, that an inexplicable veiling of faint stars had manifested itself in the boreal quarter of the sky.

When the president read the despatches—which the senders had taken the precaution to mark “confidential”—the members of the council looked at one another with no little dismay. Here was the most unprejudiced corroboration of Cosmo Versál's assertion that the great nebula was already within the range of observation. How could they dispute such testimony, and what were they to make of it?

Two or three of the members began to be shaken in their convictions.

“Upon my word,” exclaimed Professor Alexander Jones, “but this is very curious! And suppose the fellow should be right, after all?”

“Right!” cried the president, Professor Pludder, disdainfully. “Who ever heard of a watery nebula? The thing's absurd!”

“I don't see that it's absurd,” replied Prof. Jones. “There's plenty of proof of the existence of hydrogen in some of the nebulae.”

“So there is,” chimed in Prof. Abel Able, “and if there's hydrogen, there may be oxygen, and there you have all that's necessary. It's not the idea that a nebula may consist of watery vapor that's absurd, but it is that a watery nebula, large enough to drown the earth by condensation upon it could have approached so near as this one must now be without sooner betraying its presence.”

“How so?” demanded a voice.

“By its attraction. Cosmo Versál says it is already less than three hundred million miles away.

If it is massive enough to drown the earth, it ought long ago to have been discovered by its disturbance of the planetary orbits.”

“Not at all,” exclaimed Professor Jeremiah Moses. “If you stick to that argument you'll be drowned sure. Just look at these facts. The earth weighs six and a half sextillions of tons, and the ocean one and a half quintillions. The average depth of the oceans is two and one-fifth miles. Now—if the level of the ocean were raised only about 1,600 feet, practically all the inhabited parts of the world would be flooded. To cause that increase in the level of the oceans only about one-eighth part would have to be added to their total mass, or, say, one-seventh part, allowing for the greater surface to be covered. That would be one thirty-thousandth of the weight of the globe, and if you suppose that only one-hundredth of the entire nebula were condensed on the earth, the whole mass of the nebula would not need to exceed one three-hundredth of the weight of the earth, or a quarter that of the moon—and nobody here will be bold enough to say that the approach of a mass no greater than that would be likely to be discovered through its attraction when it was three hundred million miles away.”

Several of the astronomers present shook their heads at this, and Professor Pludder irritably declared that it was absurd.

“The attraction would be noticeable when it was a thousand millions of miles away,” he continued.

“Yes, ‘noticeable’ I admit,” replied Professor Moses, “but all the same you wouldn't notice it, because you wouldn't be looking for it unless the nebula were visible first, and even then it would require months of observation to detect the effects. And how are you going to get around those bulletins? The thing is beginning to be visible now, and I'll bet that if, from this time on, you study carefully the planetary motions, you will find evidence of the disturbance becoming stronger and stronger. Versál has pointed out that very thing, and calculated the perturbations. This thing has come like a thief in the night.”

You'd better hurry up and secure a place in the ark,” said Professor Pludder sarcastically.

“I don't know but I shall, if I can get one,” returned Professor Moses. “You may not think this is such a laughing matter a few months hence.”

“I'm surprised,” pursued the president, “that a man of your scientific standing should stultify himself by taking seriously such balderdash as this. I tell you the thing is absurd.”

“And I tell you, *you* are absurd to say so!” retorted Professor Moses, losing his temper. “You've got four of the biggest telescopes in the world under your control; why don't you order your observers to look for this thing?”

Professor Pludder, who was a very big man, reared up his rotund form, and, bringing his fist down upon the table with a resounding whack, exclaimed:

“I'll do nothing so ridiculous! These bulletins have undoubtedly been influenced by the popular excitement. There has possibly been a little obscurity in the atmosphere—cirrus clouds, or something—and the observers have imagined the rest. I'm not going to insult science by encouraging the proceedings of a mountebank like Cosmo Versál.

What we've got to do is to prepare a despatch for the press reassuring the populace and throwing the weight of this institution on the side of common sense and public tranquillity. Let the secretary indite such a despatch, and then we'll edit it and send it out."

Professor Pludder, naturally dictatorial, was sometimes a little overbearing, but being a man of great ability, and universally respected for his high rank in the scientific world, his colleagues usually bowed to his decisions. On this occasion his force of character sufficed to silence the doubters, and when the statement intended for the press had received its final touches it contained no hint of the seeds of discord that Cosmo Versál had sown among America's foremost savants. The next morning it appeared in all the newspapers as follows:

*Official statement from the Carnegie Institute.*

In consequence of the popular excitement caused by the sensational utterances of a notorious pretender to scientific knowledge in New York, the council of this institution authorizes the statement that it has examined the alleged grounds on which prediction of a great flood, to be caused by a nebula encountering the earth, is based, and finds, as all real men of science knew beforehand, that the entire matter is simply a canard.

The nebulae are not composed of water; if they were composed of water they could not cause a flood on the earth; the report that some strange, misty object is visible in the starry heavens is based on a misapprehension; and finally, the so-called calculations of the author of this inexcusable hoax are baseless and totally devoid of scientific validity.

The public is earnestly advised to pay no further attention to the matter. If there were any danger to the earth—and such a thing is not to be seriously considered—astronomers would know it long in advance, and would give due and official warning.

Unfortunately for the popular effect of this pronouncement, on the very morning when it appeared in print, thirty thousand people were crowded around the old aviation field at Mineola, excitedly watching Cosmo Versál, with five hundred workmen, laying the foundation of a huge platform, while about the field were stretched sheets of canvas displaying the words:

### THE ARK OF SAFETY.

Earnest Inspection Invited for All.  
Attendants will Furnish Gratis Plans for Similar  
Constructions.

Small Arks Can Be Built for Families.  
Act While There Is Yet Time.

The multitude saw at a glance that here was a work that would cost millions, and the spectacle of this immense expenditure, the evidence that Cosmo was backing his words with his money, furnished a silent argument which was irresistible. In the midst of all, flying about among his men, was Cosmo, impressing every beholder with the feeling that intellect was in charge.

Like the gray coat of Napoleon on a battle-field, the sign of that mighty brow bred confidence.

## CHAPTER III

### The First Drops of the Deluge

THE utterance of the Carnegie Institution indeed fell flat, and Cosmo Versál's star reigned in the ascendent. He pushed his preparations with amazing speed, and not only politics, but even the war that had just broken out in south America were swallowed up in the newspapers by endless descriptions of the mysterious proceedings at Mineola. Cosmo still found time every day to write articles and to give out interviews; and Joseph Smith was kept constantly on the jump, running for street-cars or trains, or leaping, with his long coat flapping, into and out of elevators on ceaseless missions to the papers, the scientific societies, and the meetings of learned or unlearned bodies which had been persuaded to investigate the subject of the coming flood. Between the work of preparation and that of proselytism it is difficult to see how Cosmo found sleep.

Day by day the Ark of Safety rose higher upon its great platform, its huge metallic ribs and broad, bulging sides glinting strangely in the unbroken sunshine—for, as if imitating the ominous quiet before an earthquake, the July sky had stripped itself of all clouds. No thunder-storms broke the serenity of the long days, and never had the overarching heavens seemed so spotless and motionless in their cerulean depths.

Al over the world, as the news despatches showed, the same strange calm prevailed. Cosmo did not fail to call attention to this unparalleled repose of nature as a sure prognostic of the awful event in preparation.

The heat became tremendous. Hundreds were stricken down in the blazing streets. Multitudes fled to the seashore, and lay panting under umbrellas on the burning sands, or vainly sought relief by plunging into the heated water, which, rolling lazily in with the tide, felt as if it had come from over a boiler.

Still, perspiring crowds constantly watched the workmen, who struggled with the overpowering heat, although Cosmo had erected canvas screens for them and installed a hundred immense electric fans to create a breeze.

Beginning with five hundred men, he had, in less than a month, increased his force to nearer five thousand, many of whom, not engaged in the actual construction, were preparing the materials and bringing them together. The Ark was being made of pure levium, the wonderful new metal which, although already employed in the construction of airplanes and the framework of dirigible balloons, had not before been used for shipbuilding, except in the case of a few small boats, and these only in the navy.

For mere raw material Cosmo must have expended an enormous sum, and his expenses were quadrupled by the fact that he was compelled, in order to save time, practically to lease several of the largest steel plants in the country. Fortunately levium was easily rolled into plates, and the supply

was sufficient, owing to the discovery two years before of an expeditious process of producing the metal from its ores.

The radio, telegraph and telephone offices were besieged by correspondents eager to send inland, and all over Europe and Asia, the latest particulars of the construction of the great ark. Nobody followed Cosmo's advice or example, but everybody was intensely interested and puzzled.

At last the government officials found themselves forced to take cognizance of the affair. They could no longer ignore it after they discovered that it was seriously interfering with the conduct of public business. Cosmo Versál's pressing orders, accompanied by cash, displaced or delayed orders of the government commanding materials for the navy and the air fleet. In consequence, about the middle of July he received a summons to visit the President of the United States. Cosmo hurried to Washington on the given date, and presented his card at the White House. He was shown immediately into the President's reception-room, where he found the entire Cabinet in presence. As he entered he was the focus of a formidable battery of curious and not too friendly eyes.

President Samson was a large, heavy man, more than six feet tall. Every member of the Cabinet was above the average in avoirdupois, and the heavy-weight president of the Carnegie Institution, Professor Pludder, who had been specially invited, added by his presence to the air of ponderosity that characterized the assemblage. All seemed magnified by the thin white garments which they wore on account of the oppressive heat. Many of them had come in haste from various summer resorts, and were plainly annoyed by the necessity of attending at the President's command.

Cosmo Versál was the only cool man there, and his diminutive form presented a striking contrast to the others. But he looked as if he carried more brains than all of them put together.

He was not in the least overawed by the hostile glances of the statesmen. On the contrary, his lips perceptibly curled, in a half-disdainful smile, as he took the big hand which the President extended to him. As soon as Cosmo Versál had sunk into the embrace of a large easy chair, the President opened the subject.

"I have directed you to come," he said in a majestic tone, "in order the sooner to dispel the effects of your unjustifiable predictions and extraordinary proceedings on the public mind—and, I may add, on public affairs. Are you aware that you have interfered with the measures of this government for the defense of the country? You have stepped in front of the government, and delayed the beginning of four battle-ships which Congress has authorized in urgent haste on account of the threatening aspect of affairs in the East? I need hardly say to you that we shall, if necessary, find means to set aside the private agreements under which you are proceeding, as inimical to public interests, but you have already struck a serious blow at the security of your country."

The President pronounced the last sentence with oratorical unction, and Cosmo was conscious of an

approving movement of big official shoulders around him. The disdain deepened on his lips.

After a moment's pause the President continued: "Before proceeding to extremities I have wished to see you personally, in order, in the first place, to assure myself that you are mentally responsible, and then to appeal to your patriotism, which should lead you to withdraw at once an obstruction so dangerous to the nation. Do you know the position in which you have placed yourself?"

Cosmo Versál got upon his feet and advanced to the center of the room like a little David. Every eye was fixed upon him. His voice was steady, but intense with suppressed nervousness.

"Mr. President," he said, "you have accused me of obstructing the measures of the government for the defense of the country. Sir, I am trying to save *the whole human race* from a danger in comparison with which that of war is infinitesimal—a danger which is rushing down upon us with appalling speed, and which will strike every land on the globe simultaneously. Within seven months not a warship or any other existing vessel will remain afloat."

The listeners smiled, and nodded significantly to one another, but the speaker only grew more earnest.

"You think I am insane," he said, "but the truth is you are hoodwinked by official stupidity. *That man*," pointing to Professor Pludder, "who knows me well, and who has had all my proofs laid before him, is either too thick-headed to understand a demonstration or too pig-headed to confess his own error."

"Come, come," interrupted the President sternly, while Professor Pludder flushed very red, "this will not do! Indulge in no personalities here. I have strained the point in offering to listen to you at all, and I have invited the head of the greatest of our scientific societies to be present, with the hope that here, before us all, he might convince you of your folly, and thus bring the whole unfortunate affair promptly to an end."

"*He convince me!*" cried Cosmo Versál disdainfully. "He is incapable of understanding the A, B, C of my work. But let me tell you this, Mr. President—there are men in his own council who are not so blind. I know what occurred at the recent meeting of that council, and I know that the ridiculous announcement put forth in its name to deceive the public was whipped into shape by *him*, and does not express the real opinion of many of the members."

Professor Pludder's face grew redder than ever.

"Name one!" he thundered.

"Ah," said Cosmo sneeringly, "that hits hard, doesn't it? You want me to name *one*; well I'll name *three*. . . What did Professor Alexander Jones and Professor Abel Able say about the existence of watery nebulae, and what was the opinion expressed by Professor Jeremiah Moses about the actual approach of one out of the northern sky, and what it could do if it hit the earth? What was the unanimous opinion of the entire council about the correctness of my mathematical work? And what," he continued, approaching Professor Pludder and shaking his finger up at him—"what have you done with those three despatches from Iceland, the North Cape, and Kamchatka, which absolutely con-

*firmed my announcement that the nebula was already visible?"*

Professor Pludder began stammeringly:

"Some spy—"

"Ah," cried Cosmo, catching him up, "*a spy*, hey? Then, you admit it! Mr. President, I beg you to notice that he admits it. Sir, this is a conspiracy to conceal the truth. Great Heavens, the world is on the point of being drowned, and yet the pride of officialism is so strong in this plodder—Pludder—and others of his ilk that they'd sooner take the chance of letting the human race be destroyed than recognize the truth!"

Cosmo Versál spoke with such tremendous concentration of mental energy, and with such evident sincerity of conviction, and he had so plainly put Professor Pludder to rout, that the President, no less than the other listening statesmen, was thrown into a quandary.

There was a creaking of heavily burdened chairs, a ponderous stir all round the circle, while a look of perplexity became visible on every face. Professor Pludder's conduct helped to produce the change of moral atmosphere. He had been so completely surprised by Cosmo's accusation, based on facts which he had supposed were known only to himself and the council, that he was unable for a minute to speak at all, and before he could align his faculties his triumphant little opponent renewed the attack.

"Mr. President," he said, laying his hand on the arm of Mr. Samson's big chair, which was nearly on a level with his breast, and speaking with persuasive earnestness, "you are the executive head of a mighty nation—the nation that sets the pace for the world. It is in your power to do a vast, an incalculable, service to humanity. One official word from you would save millions upon millions of lives. I implore you, instead of interfering with my work, to give instant order for the construction of as many arks, based upon the plans I have perfected, as the navy yard can possibly turn out. Issue a proclamation to the people, warning them that this is their only chance of escape."

By a curious operation of the human mind, this speech cost Cosmo nearly all the advantage that he had previously gained. His ominous suggestion of a great nebula rushing out of the heavens to overwhelm the earth had immensely impressed the imagination of his hearers, and his uncontradicted accusation that Professor Pludder was concealing the facts had almost convinced them that he was right. But when he mentioned "arks," the strain was relieved, and a smile broke out on the broad face of the President. He shook his head, and was about to speak, when Cosmo, perceiving that he had lost ground, changed his tactics.

"Still you are incredulous!" he exclaimed. "But the proof is before you! Look at the blazing heavens! The annals of meteorology do not record another such summer as this. The vanguard of the fatal nebula is already upon us. The signs of disaster are in the sky. But, note what I say—this is only the *first* sign. There is another following on its heels which may be here at any moment. To heat will succeed cold, and as we rush through the tenuous outer spirals the earth will alternately be

whipped with tempests of snow and sleet, and scorched by fierce outbursts of solar fire. For three weeks the sun has been feeding its furnaces with invisible vapor—but look out, I warn you, for the change that is impending!"

These extraordinary words, pronounced with the wild air of a prophet, completed the growing conviction of the listeners that they really had a madman to deal with, and Professor Pludder, having recovered his self-command, rose to his feet.

"Mr. President," he began, "the evidence which we have just seen of an unbalanced mind—"

He got no further. A pall of darkness suddenly dropped upon the room. An inky curtain seemed to have fallen from the sky. At the same time the windows were shaken by tremendous blasts of wind, and, as the electric lights were hastily turned on, huge snowflakes, intermingled with rattling hailstones, were seen careering outside. In a few seconds several large panes of glass were broken, and the chilling wind, sweeping round the apartment, made the teeth of the thinly clad statesmen chatter, while the noise of the storm became deafening. The sky lighted, but at the same moment dreadful thunder-peals shook the building. Two or three trees in the White House grounds were struck by the bolts, and their broken branches were driven through the air and carried high above the ground by the whirling winds, and one of them was thrown against the building with such force that for a moment it seemed as if the wall had been shattered.

After the first stunning effect of this outbreak of the elements had passed, everybody rushed to the windows to look out—everybody except Cosmo Versál, who remained standing in the center of the room.

"I told you!" he said; but nobody listened to him. What they saw outside absorbed every faculty. The noise was so stunning that they could not have heard him.

We have said that the air lightened after the passage of the first pall of darkness, but it was not the reappearance of the sun that caused the brightening. It was an awful light, which seemed to be born out of the air itself. It had a menacing, coppery hue, continually changing in character. The whole upper atmosphere was choked with dense clouds, which swirled and tumbled, and twisted themselves into great vortical rolls, spinning like gigantic mill-shafts. Once, one of these vortexes shot downward, with projectile speed, rapidly assuming the terrible form of the trombe of a tornado, and where it struck the ground it tore everything to pieces—trees, houses, the very earth itself, were ground to powder and then whirled aloft by the resistless suction.

Occasionally the darkness returned for a few minutes, as if a cover had been clapped upon the sky, and then, again, the murk would roll off, and the reddish gleam would reappear. These swift alternations of impenetrable gloom and unearthly light shook the hearts of the dumfounded statesmen even more than the roar and rush of the storm.

A cry of horror broke from the onlookers when a man and a woman suddenly appeared trying to cross the White House grounds to reach a place of comparative safety, and were caught up by the wind

clinging desperately to each other, and hurled against a wall, at whose base they fell in a heap.

Then came another outburst of lightning, and a vicious bolt descended upon the Washington Monument, and, twisting round it, seemed to envelope the great shaft in a pulsating corkscrew of blinding fire. The report that instantly followed made the White House dance upon its foundations, and, as if that had been a signal, the flood-gates of the sky immediately opened, and rain so dense that it looked like a solid cataract of water poured down upon the earth. The raging water burst into the basement of the building, and ran off in a shoreless river toward the Potomac.

The streaming rain, still driven by the wind, poured through the broken windows, driving the President and the others to the middle of the room, where they soon stood in rills of water soaking the thick carpet.

They were all as pale as death. Their eyes sought one another's faces in dumb amazement. Cosmo Versál alone retained perfect self-command. In spite of his slight stature he looked their master. Raising his voice to the highest pitch, in order to be heard, he shouted:

"These are the first drops of the Deluge! Will you believe now?"

#### CHAPTER IV

##### The World Swept With Terror

**T**HE tempest of hail, snow, lightning, and rain, which burst so unexpectedly over Washington, was not a local phenomenon. It leveled the antennæ of the radio systems all over the world, cutting off communication everywhere. Only the submarine cables remained unaffected, and by them was transmitted the most astonishing news of the ravages of the storm. Rivers had careered over their banks, low-lying towns were flooded, the swollen sewers of cities exploded and inundated the streets, and gradually news came in from country districts showing that vast areas of land had been submerged, and hundreds drowned.

The downfall of rain far exceeded everything that the meteorological bureaus had ever recorded.

The vagaries of the lightning, and the frightful power that it exhibited, were especially terrifying.

In London the Victoria Tower was partly dismantled by a bolt.

In Moscow the ancient and beautiful Church of St. Basil was nearly destroyed.

The celebrated Leaning Tower of Pisa, the wonder of centuries, was flung to the ground.

The vast dome of St. Peter's at Rome was said to have been encased during three whole minutes with a blinding armor of electric fire, though the only harm done was the throwing down of a statue in one of the chapels.

But, strangest freak of all, in New York a tremendous bolt, which seems to have entered the Pennsylvania tunnel on the Jersey side, followed the rails under the river, throwing two trains from the track, and, emerging in the great station in the heart of the city, expanded into a rose-colored sphere, which exploded with an awful report, and blew the great roof to pieces. And yet, although the

fragments were scattered a dozen blocks away, hundreds of persons who were in the stations suffered no other injury than such as resulted from being flung violently to the floor, or against the walls.

Cosmo Versál's great ark seemed charmed. Not a single discharge of lightning occurred in its vicinity, a fact which he attributed to the dielectric properties of levium. Nevertheless, the wind carried away all his screens and electric fans.

If this storm had continued the predicted deluge would unquestionably have occurred at once, and even its prophet would have perished through having begun his preparations too late. But the disturbed elements sank into repose as suddenly as they had broken out with fury. The rain did not last, in most places more than twenty-four hours, although the atmosphere continued to be filled with troubled clouds for a week. At the end of that time the sun reappeared, as hot as before, and a spotless dome once more over-arched the earth; but from this time the sky never resumed its former brilliant azure—there was always a strange coppery tinge, the sight of which was appalling, although it gradually lost its first effect through familiarity.

The indifference and derision with which Cosmo's predictions and elaborate preparations had hitherto been regarded now vanished, and the world, in spite of itself, shivered with vague apprehension. No reassurances from those savants who still refused to admit any validity in Cosmo Versál's calculations and deductions had any permanent effect upon the public mind.

With amusing inconsequence people sold stocks again, until all the exchanges were once more swept with panic—and then put the money in their strong boxes, as if they thought that the mere possession of the lucre could protect them. They hugged the money and remained deaf to Cosmo's reiterated advice to build arks with it.

After all, they were only terrified, not convinced, and they felt that, somehow, everything would come out right, now that they had their possessions well in hand.

For, in spite of the scare, nobody really believed that an actual deluge was coming. There might be great floods, and great suffering and loss, but the world was not going to be drowned! Such things only occurred in early and dark ages.

Some nervous persons found comfort in the fact that when the skies cleared after the sudden down-pour brilliant rainbows were seen. Their hearts bounded with joy.

"The 'Bow of Promise!'" they cried "Behold the unvarying assurance that the world shall never again be drowned."

Then a great revival movement was set on foot, starting in the Mississippi valley under the leadership of an eloquent exhorter, who declared that, although a false prophet had arisen, whose delusive prediction was contrary to Scripture, yet it was true that the world was about to be punished in unexpected ways for its many iniquities.

This movement rapidly spread all over the country, and was taken up in England and throughout Protestant Europe, and soon prayers were offered



in thousands of churches to avert the wrath of Heaven. Multitudes thus found their fears turned into a new direction, and by a strange reaction, Cosmo Versál came to be regarded as a kind of Antichrist who was seeking to mislead mankind.

Just at this juncture, to add to the dismay and uncertainty, a grand and fearful comet suddenly appeared. It came up unexpectedly from the south, blazed brightly close beside the sun, even at noon-day, and a few nights later was visible after sunset with an immense fiery head and a broad curved tail that seemed to pulsate from end to end. It was so bright that it cast shadows at night, as distinct as those made by the moon. No such cometary monster had ever before been seen. People shuddered when they looked at it. It moved with amazing speed, sweeping across the firmament like a besom of destruction. Calculation showed that it was not more than 3,000,000 miles from the earth.

But one night the wonder and dread awakened by the comet were magnified a hundredfold by an occurrence so unexpected and extraordinary that the spectators gasped in amazement.

The writer happens to have before him an entry in a diary, which is, probably, the sole contemporary record of this event. It was written in the city of Washington by no less a person than Prof. Jeremiah Moses, of the Council of the Carnegie Institution. Let it tell its own story:

"A marvelous thing happened this night. I walked out into the park near my house with the intention of viewing the great comet. The park on my side (the west), is bordered with a dense screen of tall trees, and I advanced toward the open place in the center in order to have an unobstructed sight of the flaming stranger. As I passed across the edge of the shadow of the trees—the ground ahead being brilliantly illuminated by the light of the comet—I suddenly noticed, with an involuntary start, that I was being preceded by a *double shadow*, which forked away from my feet.

"I cast my eyes behind me to find the cause of the phenomenon, and saw, to my inexpressible amazement, that the comet had divided into two. There were two distinct heads, already widely separated, but each, it seemed to me, as brilliant as the original one had been, and each supplied with a vast plume of fire a hundred degrees in length, and consequently stretching far past the zenith. The cause of the double shadow was evident at once—but what can have produced this sudden disruption of the comet? It must have occurred since last evening, and already, if the calculated distance of the comet is correct, the parts of the severed head are 300,000 miles asunder!"

Underneath this entry was scribbled:

"Can this have anything to do with Cosmo Versál's flood?"

Whether it had anything to do with the flood or not, at any rate the public believed that it had. People went about with fear written on their faces.

The *double shadows* had a surprising effect. The phantasm was pointed out, and stared at with superstitious terror by thousands every night. The fact that there was nothing really mysterious about it

made no difference. Even those who knew well that it was an inevitable optical result of the division of the bright comet were thrilled with instinctive dread when they saw that forked shadow, mimicking their every movement. There is nothing that so upsets the mind as a sudden change in the aspect of familiar things.

The astronomers now took their turn. Those who were absolutely incredulous about Cosmo's prediction, and genuinely desirous of allaying the popular alarm, issued statements in which, with a disingenuousness that may have been unintentional, they tried to sidetrack his arguments.

Professor Pludder led the way with a pronouncement declaring that "the absurd vaporings of the modern Nostradamus of New York" had now demonstrated their own emptiness.

"A comet," said Professor Pludder, with reassuring seriousness, "cannot down the earth. It is composed of rare gases, which, as the experience of Halley's comet many years ago showed, are unable to penetrate the atmosphere even when an actual encounter occurs. In this case there cannot even be an encounter; the comet is now moving away. Its division is not an unprecedented occurrence, for many previous comets have met with similar accidents. This comet happened to be of unusual size, and the partition of the head occurred when it was relatively near-by—whence the startling phenomena observed. There is nothing to be feared."

It will be remarked that Professor Pludder entirely avoided the real issue. Cosmo Versál had never said that the comet would drown the earth. In fact, he had been as much surprised by its appearance as everybody else. But when he read Professor Pludder's statement, followed by others of similar import, he took up the cudgels with a vengeance. All over the world, translated into a dozen languages, he scattered his reply, and the effect was startling.

"My fellow-citizens of the world in all lands, and of every race," he began, "you are face to face with destruction! And yet, while its heralds are plainly signaling from the sky, *and shaking the earth with lightning to awaken it*, blind leaders of the blind try to deceive you!

"They are defying science itself!

"They say that the comet cannot touch the earth. That is true. It is passing away. I myself did not foresee its coming. It arrived by accident, *but every step that it has made through the silent depths of space has been a proclamation of the presence of the nebula*, which is the real agent of the perdition of the world!

"Why that ominous redness which overcasts the heavens? You have all noticed it. Why that blinding brightness which the comet has displayed, exceeding all that has ever been beheld in such visitors. The explanation is plain: *the comet has been feeding on the substance of the nebula*, which is rare yet because we have only encountered some of its outlying spirals.

"But it is coming on with terrible speed. In a few short months we shall be plunged into its awful

center, and then the oceans will swell to the mountain-tops, and the continents will become the bottom of angry seas.

"When the flood begins it will be *too late* to save yourselves. You have already lost too much precious time. I tell you solemnly that *not one in a million can now be saved*. Throw away every other consideration, and try, *try desperately*, to be of the little company of those who escape!

"Remember that your only chance is in building arks—arks of levium, *the metal that floats*. I have sent broadcast plans for such arks. They can be made of any size, but the larger the better. In my own ark I can take only a selected number, and when the complement is made up *not another soul* will be admitted.

"I have established all my facts by *mathematical proofs*. The most expert mathematicians of the world have been unable to detect any error in my calculations. They try to dispute the data, but the data are already before you for your own judgment. The heavens are so obscured that only the brightest stars can now be seen." (This was a fact which had caused bewilderment in the observatories.) "The recent outburst of storms and floods was the second sign of the approaching end, and the third sign will not be long delayed—and *after that the deluge!*"

It is futile to try to describe the haunting fear and horror which seized upon the majority of the millions who read these words. Business was paralyzed, for men found it impossible to concentrate their minds upon ordinary affairs. Every night the twin comets, still very bright, although they were fast retreating, brandished their fiery scimitars in the sky—more fearful to the imagination now, since Cosmo Versál had declared that it was the nebula that stimulated their energies. And by day the sky was watched with anxious eyes striving to detect signs of a deepening of the menacing hue, which, to an excited fancy, suggested a tinge of blood.

Now, at last, Cosmo's warnings and entreaties bore practical fruit. Men began to inquire about places in his ark, and to make preparations for building arks of their own.

He had not been interfered with after his memorable interview with the President of the United States, and had pushed his work at Mineola with redoubled energy, employing night gangs of workmen so that progress was continuous throughout the twenty-four hours.

Standing on its platform, the ark, whose hull was approaching completion, rose a hundred feet into the air. It was 800 feet long and 250 broad—proportions which practical ship-builders ridiculed, but Cosmo, as original in this as in everything else, declared that, taking into account the buoyancy of levium, no other form would answer as well. He estimated that when its great engines were in place, its immense stores of material for producing power, its ballast, and its supplies of food stowed away, and its cargo of men and animals taken aboard, it would not draw more than twenty feet of water.

Hardly a day passed now without somebody coming to Cosmo to inquire about the best method

of constructing arks. He gave the required information, in all possible detail, with the utmost willingness. He drew plans and sketches, made all kinds of practical suggestions, and never failed to urge the utmost haste. He inspired every visitor at the same time with alarm and a resolution to go to work at once.

Some did go to work. But their progress was slow, and as days passed, and the comets gradually faded out of sight, and then the dome of the sky showed a tendency to resume its natural blueness, the enthusiasm of Cosmo's imitators weakened, together with their confidence in his prophetic powers.

They concluded to postpone their operations until the need of arks should become more evident.

As to those who had sent inquiries about places in Cosmo's ark, now that the danger seemed to be blowing away, they did not even take the trouble to acknowledge the very kind responses that he had made.

It is a singular circumstance that not one of these anxious inquirers seemed to have paid particular attention to a very significant sentence in his reply. If they had given it a little thought, it would probably have set them pondering although they might have been more puzzled than edified. The sentence ran as follows:

"While assuring you that my ark has been built for the benefit of my fellow men, I am bound to tell you that I reserve absolutely the right to determine who are truly representative of *homo sapiens*."

The fact was that Cosmo had been turning over in his mind the great fundamental question which he had asked himself when the idea of trying to save the human race from annihilation had first occurred to him, and apparently he had fixed upon certain principles that were to guide him.

Since, when the mind is under great strain through fear, the slightest relaxation, caused by an apparently favorable change, produces a rebound of hope, as unreasoning as the preceding terror, so on this occasion, the vanishing of the comets, and the fading of the disquieting color of the sky, had a wonderful effect in restoring public confidence in the orderly procession of nature.

Cosmo Versál's vogue as a prophet of disaster was soon gone, and once more everybody began to laugh at him. People turned again to their neglected affairs with the general remark that they "guessed the world would manage to wade through."

Those who had begun preparations to build arks looked very sheepish when their friends geyed them about their childish credulity.

Then a feeling of angry resentment arose, and one day Cosmo Versál was mobbed in the street, and the gamins threw stones at him.

People forgot the extraordinary storm of lightning and rain, the split comet, and all the other circumstances which, a little time before, had filled them with terror.

But they were making a fearful mistake!

With eyes blindfolded, they were walking straight into the jaws of destruction.

Without warning, and as suddenly almost as an explosion, the *third sign* appeared, and on its heel came a veritable Reign of Terror!

## CHAPTER V

## The Third Sign

**I**N the middle of the night, at New York, hundreds of thousands simultaneously awoke with a feeling of suffocation.

They struggled for breath as if they had suddenly been plunged into a steam bath.

The air was hot, heavy, and terribly oppressive.

The throwing open of windows brought no relief. The outer air was as stifling as that within.

It was so dark that, on looking out, one could not see his own doorsteps. The arc lamps in the street flickered with an ineffective blue gleam which shed no illumination round about.

House lights, when turned on, looked like tiny candles enclosed in thick blue globes.

Frightened men and women stumbled around in the gloom of their chambers trying to dress themselves.

Cries and exclamations rang from room to room; children wailed; hysterical mothers ran wildly hither and thither, seeking their little ones. Many fainted, partly through terror and partly from the difficulty of breathing. Sick persons, seized with a terrible oppression of the chest, gasped, and never rose from their beds.

At every window, and in every doorway, throughout the vast city, invisible heads and forms were crowded, making their presence known by their voices—distracted householders striving to peer through the strange darkness, and to find out the cause of these terrifying phenomena.

Some managed to get a faint glimpse of their watches by holding them close against lamps, and thus noted the time. It was two o'clock in the morning.

Neighbors, unseen, called to one another, but got little comfort from the replies.

"What is it? In God's name, what has happened?"

"I don't know. I can hardly breathe."

"It is awful! We shall all be suffocated."

"Is it a fire?"

"No! No! It cannot be a fire."

"The air is full of steam. The stones and the window-panes are streaming with moisture."

"Great Heavens, how stifling it is!"

Then, into thousands of minds at once leaped the thought of *the flood!*

The memory of Cosmo Versál's reiterated warnings came back with overwhelming force. It must be the *third sign* that he had foretold. *It had come!*

Those fateful words—"the flood" and "Cosmo Versál"—ran from lip to lip, and the hearts of those who spoke, and those who heard, sank like lead in their bosoms.

He would be a bold man, more confident in his powers of description than the present writer, who should attempt to picture the scenes in New York on that fearful night.

The gasping and terror-stricken millions waited and longed for the hour of sunrise, hoping that then the Stygian darkness would be dissipated, so that people might, at least, see where to go and what to do. Many, oppressed by the almost unbreathable air, gave up in despair, and no longer even hoped for morning to come.

In the midst of it all a collision occurred directly over Central Park between two air-expresses, one coming from Boston and the other from Albany. (The use of small airplanes within the city limits had, for sometime, been prohibited on account of the constant danger of collisions, but the long-distance lines were permitted to enter the metropolitan district, making their landings and departures on specially constructed towers.) These two, crowded with passengers, had, as it afterward appeared, completely lost their bearings—the strongest electric lights being invisible a few hundred feet away, while the wireless signals were confusing—and, before the danger was apprehended, they crashed together.

The collision occurred at a height of a thousand feet, on the Fifth Avenue side of the park. Both of the air-ships had their air foils smashed and their decks crumpled up, and the unfortunate crews and passengers were hurled through the impenetrable darkness to the ground.

Only four or five, who were lucky enough to be entangled with the lighter parts of the wreckage, escaped with their lives. But they were too much injured to get upon their feet, and there they lay, their sufferings made tenfold worse by the stifling air, and the horror of their inexplicable situation, until they were found and humanely relieved, more than ten hours after their fall.

The noise of the collision had been heard in Fifth Avenue, and its meaning was understood, but amid the universal terror no one thought of trying to aid the victims. Everybody was absorbed in wondering what would become of himself.

When the long attended hour of sunrise approached, the watchers were appalled by the absence of even the slightest indication of the reappearance of the orb of day. There was no lightening of the dense cloak of darkness, and the great city seemed dead.

For the first time in its history it failed to awake after its regular period of repose, and to send forth its myriad voices. It could not be seen; it could not be heard; it made no sign. As far as any outward indication of its existence was concerned the mighty capital had ceased to be.

It was this frightful silence of the streets, and of all the outer world, that terrified the people, cooped up in their houses and in their rooms, by the walls of darkness, more than almost any other circumstance. It gave such an overwhelming sense of the universality of the disaster, whatever that disaster might be. Except where the voices of neighbors could be heard, one could not be sure that the whole population, outside his own family, had not perished.

As the hours passed, and yet no light appeared, another intimidating circumstance manifested itself. From the start everybody had noticed the excessive humidity of the dense air. Every solid object that the hands came in contact with in the darkness was wet, as if a thick fog had condensed upon it. This supersaturation of the air (a principal cause of the difficulty experienced in breathing) led to a result which would quickly have been foreseen if people could have had the use of their eyes, but which, coming on invisibly, produced a panic fear when at

last its presence was strikingly forced upon the attention.

The moisture collected on all exposed surfaces—on the roofs, the walls, the pavements—until its quantity became sufficient to form little rills, which sought the gutters, and there gathered force and volume. Presently the streams became large enough to create a noise of flowing water that attracted the attention of the anxious watchers at the open windows. Then cries of dismay arose. If the water had been visible it would not have been terrible.

But, to the overstrained imagination, the bubbling and splashing sound that came out of the darkness was magnified into the rush of a torrent. It seemed to grow louder every moment. What was but a murmur on the ear-drum became a roar in the excited brain-cells.

Once more were heard the ominous word, "The flood!"

Panic spread from room to room, and from house to house. The wild scenes that had attended the first awakening were tame in comparison with what now occurred. Self-control, reason—everything—gave way to panic.

If they could have *seen* what they were about!

But *then* they would not have been about it. Then their reason would not have been dethroned.

Darkness is the microscope of the imagination, and it magnifies a million times!

Some timorously descended their doorsteps, and feeling a current of water in the gutter, recoiled with cries of horror, as if they had slipped down the bank of a flooded river. As they retreated they believed that the water was rising at their heels.

Others made their way to the roofs, persuaded that the flood was already inundating the basements and the lower stories of their dwellings.

Women wrung their hands and wept, and children cried, and men pushed and stumbled about, and shouted, and would have done something if only they could have seen what to do. That was the pity of it! It was as if the world had been stricken blind, and then the trump of an archangel had sounded, crying:

"Fly! Fly! for the Avenger is on your heels!"

How could they fly?

This awful strain could not have lasted. It would have needed no deluge to finish New York if that maddening pall of darkness had remained unbroken a few hours longer. But, just when thousands had given up in despair, there came a rapid change.

At the hour of noon light suddenly broke overhead. Beginning in a round patch enclosed in an iridescent halo, it spread swiftly, seeming to melt its way down through the thick, dark mass that choked the air, and in less than fifteen minutes New York and all its surroundings emerged into the golden light of noonday.

People who had expected at any moment to feel the water pitilessly rising about them looked out of their windows, and were astonished to see only tiny rivulets which were already shriveling out of sight in the gutters. In a few minutes there was no running water left, although the dampness on

the walls and walks showed how great the humidity of the air had been.

At the same time the oppression was lifted from the respiratory apparatus, and everybody breathed freely once more, and felt courage returning with each respiration.

The whole great city seemed to utter a vast sigh of relief.

And then its voice was heard, as it had never been heard before, rising higher and louder every moment. It was the first time that morning had ever broken at midday.

The streets became filled, with magical quickness, by hundreds of thousands, who chattered, and shouted, and laughed, and shook hands, and asked questions, and told their experiences, and demanded if anybody had ever heard of such a thing before, and wondered what it could have been, and what it meant, and whether it would come back again.

Telephones of all kinds were kept constantly busy. Women called up their friends, and talked hysterically; men called up their associates and partners, and tried to talk business.

There was a rush for the Elevated, for the Subways, for the street auto-cars. The great arteries of traffic became jammed, and the noise rose louder and louder.

Belated aero-expresses arrived at the towers from East and West, and their passengers hurried down to join the excited multitudes below.

In an incredibly brief time the newsboys were out with extras. Then everybody read with the utmost avidity what everybody knew already.

But before many hours passed there was real news, come by radio, and by submarine telephone and telegraph, telling how the whole world had been swept by the marvelous cloak of darkness.

In Europe it had arrived during the morning hours; in Asia during the afternoon.

The phenomenon had varied in different places. In some the darkness had not been complete, but everywhere it was accompanied by extraordinary humidity, and occasionally by brief but torrential rains. The terror had been universal, and all believed that it was the Third Sign predicted by Cosmo Versál.

Of course, the latter was interviewed, and he gave out a characteristic manifesto.

"One of the outlying spirals of the nebula has struck the earth," he said. But do not be deceived. It is *nothing* in comparison with what is coming. *And it is the LAST WARNING that will be given!* You have obstinately shut your eyes to the truth, *and you have thrown away your lives!*"

This, together with the recent awful experience, produced a great effect. Those who had begun to lay foundations for arks thought of resuming the work. Those who had before sought places with Cosmo called him up by telephone. But only the voice of Joseph Smith answered, and his words were not reassuring.

"Mr. Versál," he said, "directs me to say that at present he will allot no places. He is considering whom he will take."

The recipients of this reply looked very blank. But at last one of them, a well-known broker in Wall Street, was more angered than frightened:

"Let him go to the deuce!" he growled; "him and his flood together!"

Then he resolutely set out to bull the market.

It seems incredible—but such is human nature—that a few days of bright sunshine should once more have driven off the clouds of fear that had settled so densely over the popular mind. Of course, not everybody forgot the terrors of the *Third Sign*—they had struck too deep, but gradually the strain was relaxed, and people in general accepted the renewed assurances of the savants of the Pludder type that nothing that had occurred was inexplicable by the ordinary laws of nature. The great darkness, they averred, differed from previous occurrences of the kind only in degree, and it was to be ascribed to nothing more serious than atmospheric vagaries, such as that which produced the historic Dark Day in New England in 1780.

But more nervous persons noticed, with certain misgivings, that Cosmo Versál pushed on his operations, if possible, more energetically than before. And there was a stir of renewed interest when the announcement came out one day that the ark was finished. Then thousands hurried to Mineola to look upon the completed work.

The extraordinary massiveness of the ark was imposing. Towering ominously on its platform, which was so arranged that when the waters came they should lift the structure from its cradle and set it afloat without any other launching, it seemed in itself a prophecy of impending disaster.

Overhead it was roofed with an oblong dome of levium, through which rose four great metallic chimneys, placed above the mighty engines. The roof sloped down to the vertical sides, to afford protection from in-bursting waves. Rows of portholes, closed with thick glass, indicated the location of the superposed decks. On each side four gangways gave access to the interior, and long, sloping approaches offered means of entry from the ground.

Cosmo had a force of trained guards on hand, but everybody who wished was permitted to enter and inspect the ark. Curious multitudes constantly mounted and descended the long approaches, being kept moving by the guards.

Inside they wandered about astonished at what they saw.

The three lower decks were devoted to the storage of food and of fuel for the electric generators, all of which Cosmo Versál had been accumulating for months.

Above these were two decks, which the visitors were informed would be occupied by animals, and by boxes of seeds, and prepared roots of plants, with which it was intended to restore the vegetable life of the planet after the water should have sufficiently receded.

The five remaining decks were for human beings. There were roomy quarters for the commander and his officers, others for the crew, several large saloons, and five hundred sets of apartments of various sizes to be occupied by the passengers whom Cosmo should choose to accompany him. They had all the convenience of the most luxurious state-rooms of the transoceanic liners. Many joking remarks were exchanged by the visitors as they inspected these rooms.

Cosmo ran about among his guests, explaining everything, showing great pride in his work, pointing out a thousand particulars in which his foresight had been displayed—but, to everybody's astonishment, he uttered no more warnings, and made no appeals. On the contrary, as some observant persons noticed, he seemed to avoid any reference to the fate of those who should not be included in his ship's company.

Some sensitive souls were disturbed by detecting in his eyes a look that seemed to express deep pity and regret. Occasionally he would draw apart, and gaze at the passing crowds with a compassionate expression, and then, slowly turning his back, while his fingers worked nervously, would disappear, with downcast head, into his private room.

The comparatively few who particularly noticed this conduct of Cosmo's were deeply moved—more than they had been by all the enigmatic events of the past months. One man, Amos Blank, a rich manufacturer, who was notorious for the merciless methods that he had pursued in eliminating his weaker competitors, was so much disturbed by Cosmo Versál's change of manner that he sought an opportunity to speak to him privately. Cosmo received him with a reluctance that he could not but notice, and which, somehow, increased his anxiety.

"—I—thought," said the billionaire hesitatingly, "that I ought—that is to say, that I might, perhaps, inquire—might inform myself—under what conditions one could, supposing the necessity to arise, obtain a passage in your—in your ark. Of course the question of cost does not enter in the matter—not with *me*."

Cosmo gazed at the man coldly, and all the compassion that had recently softened his steely eyes disappeared. For a moment he did not speak. Then he said, measuring his words and speaking with an emphasis that chilled the heart of his listener:

"Mr. Blank, *the necessity has arisen.*"

"So you say—so you say—" began Mr. Blank.

"So I say," interrupted Cosmo sternly, "and I say further that this ark has been constructed to save those who are worthy of salvation, in order that all that is good and admirable in humanity may not perish from the earth."

"Exactly, exactly," responded the other smiling, and rubbing his hands. "You are quite right to make a proper choice. If your flood is going to cause a general destruction of mankind of course you are bound to select the best, the most advanced, those who have pushed to the front, those who have means, those with the strongest resources. The masses, who possess none of these qualifications and claim—"

Again Cosmo Versál interrupted him, more coldly than before:

"It costs *nothing* to be a passenger in this ark. Ten million dollars, a hundred millions, would not purchase a place in it! Did you ever hear the parable of the camel and the needle's eye? The price of a ticket here is an *irreproachable record!*"

With these astonishing words Cosmo turned his back upon his visitor and shut the door in his face.

The billionaire staggered back, rubbed his head, and then went off muttering:

"An idiot! A plain idiot! There will be no flood!"

## CHAPTER VI

## Selecting the Flower of Mankind

**A**FTER a day or two, during which the ark was left open for inspection, and was visited by many thousands, Cosmo Versál announced that no more visitors would be admitted. He placed sentinels at all entrances, and began the construction of a shallow ditch, entirely enclosing the grounds. Public curiosity was intensely excited by this singular proceeding, especially when it became known that the workmen were stringing copper wires the whole length of the ditch.

"What the deuce is he up to now?" was the question on everybody's lips.

But Cosmo and his employees gave evasive replies to all inquiries. A great change had come about in Como's treatment of the public. No one was any longer encouraged to watch the operations.

When the wires were all placed and the ditch was finished, it was covered up so that it made a broad flat-topped dyke encircling the field.

Speculation was rife for several days concerning the purpose of the mysterious ditch and its wires, but no universally satisfactory explanation was found.

One enterprising reporter worked out an elaborate scheme, which he ascribed to Cosmo Versál, according to which the wired ditch was to serve as a cumulator of electricity, which would, at the proper moment, launch the ark upon the waters, thus avoiding all danger of a fatal detention in case the flood should rise too rapidly.

This seemed so absurd on its face that it went far to quiet apprehension by reawakening doubts of Cosmo's sanity—the more especially since he made no attempt to contradict the assertion that the scheme was his.

Nobody guessed what his real intention was; if people had guessed, it might have been bad for their peace of mind.

The next move of Cosmo Versál was taken without any knowledge or suspicion on the part of the public. He had now established himself in his apartments in the ark, and was never seen in the city.

One evening, when all was quiet about the ark, night work being now unnecessary, Cosmo and Joseph Smith sat facing one another at a square table lighted by a shaded lamp. Smith had a pile of writing paper before him, and was evidently prepared to take notes.

Cosmo's great brow was contracted with thought, and he leaned his cheek upon his hand. It was clear that his meditations were troublesome. For at least ten minutes he did not open his lips, and Smith watched him anxiously. At last he said, speaking slowly:

"Joseph, this is the most trying problem that I have had to solve. The success of all my work depends upon my not making a mistake now.

"The burden of responsibility that rests on my shoulders is such as no mortal has ever borne. It is too great for human capacity—and yet how can I cast it off?

"I am to decide *who shall be saved!* I, I alone, I Cosmo Versál, hold in my hands the fate of a race numbering two thousand million souls!—the fate

of a planet which, without my intervention, would become simply a vast tomb. It is for me to say whether the *genus homo* shall be perpetuated, and *in what form* it shall be perpetuated. Joseph, this is terrible! These are the functions of deity, not of man."

Joseph Smith seemed no longer to breathe, so intense was his attention. His eyes glowed under the dark brows, and his pencil trembled in his fingers. After a slight pause Cosmo Versál went on:

"If I felt any doubt that Providence has fore-ordained me to do this work, and given me extraordinary faculties, and extraordinary knowledge, to enable me to perform it, I would, this instant, blow out my brains."

Again he was silent, the secretary, after fidgeting about, bending and unbending his brows, and tapping nervously upon the table, at last said, solemnly:

"Cosmo, you *are* ordained; you must *do the work.*"

"I must," returned Cosmo Versál, "I know that; and yet the sense of my responsibility sometimes covers me with a cloud of despair. The other day, when the ark was crowded with curiosity seekers, the thought that not one of all those tens of thousands could escape, and that hundreds of millions of others must also be lost, overwhelmed me. Then I began to reproach myself for not having been a more effective agent in warning my fellows of their peril. Joseph, I have miserably failed. I ought to have produced universal conviction, and I have not done it."

"It is not your fault, Cosmo," said Joseph Smith, reaching out his long arm to touch his leader's hand. "It is an unbelieving generation. They have rejected even the signs in the heavens. The voice of an archangel would not have convinced them."

"It is true," replied Cosmo. "And the truth is the more bitter to me because I spoke in the name of science, and the very men who represent science have been my most determined opponents, blinding the people's eyes—after wilfully shutting their own."

"You say you have been weak," interposed Smith, "which you have not been; but you would be weak if you now shrank from your plain duty."

"True!" cried Cosmo, in a changed voice. "Let us then proceed. I had a lesson the other day. Amos Blank came to me, puffed with his pillaged millions. I saw then what I had to do. I told him plainly that he was not among the chosen. Hand me that book."

The secretary pushed a large volume within Cosmo's reach. He opened it. It was a "Year-Book of Science, Politics, Sociology, History, and Government."

Cosmo ran over its pages, stopping to read a few lines here and there, seeming to make mental notes. After a while he pushed the book aside, looked at his companion thoughtfully, and began:

"The trouble with the world is that morally and physically it has for thousands of years grown more and more corrupt. The flower of civilization, about which people boast so much, nods over the stagnant waters of a moral swamp and draws its perilous beauty from the poisons of the miasma.

"The nebula, in drowning the earth, brings op-

portunity for a new birth of mankind. You will remember, Joseph, that the same conditions are said to have prevailed in the time of Noah. There was no science then, and we do not know exactly on what principles the choice was made of those who should escape; but the simple history of Noah shows that he and his friends represented the best manhood of that age.

"But the seeds of corruption were not eliminated, and the same problem recurs today.

"I have to determine whom I will save. I attack the question by inquiring who represent the best elements of humanity? Let us first consider men by classes."

"And why not by races?" asked Smith.

"I shall not look to see whether a man is black, white or yellow; whether his skull is brachycephalic or dolichocephalic," replied Cosmo. "I shall look inside. No race has ever shown itself permanently the best."

"Then by classes you mean occupations?"

"Well, yes, for the occupation shows the tendency, the quintessence of character. Some men are born rulers and leaders; others are born followers. Both are necessary, and I must have both kinds."

"You will begin perhaps with the kings, the presidents?"

"Not at all. I shall begin with men of science. They are the true leaders."

"But they have betrayed you—they have shut their eyes and blindfolded others," objected Joseph Smith.

"You do not understand me," said Cosmo, with a commiserating smile. "If my scientific brethren have not seen as clearly as I have, the fault lies not in science, but in lack of comprehension. Nevertheless, they are on the right track; they have the gist of the matter in them; they are trained in the right method. If I should leave them out, the regenerated world would start a thousand years behind time. Besides, many of them are not so blind; some of them have got a glimpse of the truth."

"Not such men as Pludder," said Smith.

"All the same, I am going to save Pludder," said Cosmo Versál.

Joseph Smith fairly jumped with astonishment.

"You—are—going—to—save—Pludder," he faltered. "But he is the worst of all."

"Not from my present view-point. Pludder has a good brain; he can handle the tools; he is intellectually honest; he has done great things for science in the past. And, besides, I do not conceal from you the fact that I should like to see him convicted out of his own mouth."

"But," persisted Smith, "I have heard you say that he was—"

"No matter what you have heard me say," interrupted Cosmo impatiently. "I say now that he shall go with us. Put down his name at the head of the list."

Dumfounded and muttering under his breath, Smith obeyed.

"I can take exactly one thousand individuals, exclusive of the crew," continued Versál, paying no attention to his confidant's repeated shaking of his head. "Good Heavens, think of that! One thousand out of two thousand millions! But so be it.

Nobody would listen to me, and now it is too late. I must fix the number for each class."

"There is one thing—one curious question—that occurs to me," put in Smith hesitatingly. "What about families?"

"There you've hit it," cried Cosmo. "That's exactly what bothers me. There must be as many women as men—that goes without saying. Then, too, the strongest moral element is in the women, although they don't weigh heavily for science. But the aged people and the children—there's the difficulty. If I invite a man who possesses unquestionable qualifications, but has a large family, what am I to do? I can't crowd out others as desirable as he for the sake of carrying all of his stripes. The principles of eugenics demand a wide field of selection."

Cosmo Versál covered his eyes, rested his big head on his hands, and his elbows on the table. Presently he looked up with an air of decision.

"I see what I must do," he said. "I can take only four persons belonging to any one family. Two of them may be children—a man, his wife, and two children—no more."

"But that will be very hard lines for them—" began Joseph Smith.

"Hard lines!" Cosmo broke in. "Do you think it is easy lines for me? Good Heavens, man! I am forced to this decision. It rends my heart to think of it, but I can't avoid the responsibility."

Smith dropped his eyes, and Cosmo resumed his reflections. In a little while he spoke again:

"Another thing that I must fix is an age limit. But that will have to be subject to certain exceptions. Very aged persons in general will not do—they could not survive the long voyage, and only in the rare instances where their experience of life might be valuable would they serve any good purpose in reestablishing the race. Children are indispensable—but they must not be too young—infants in arms would not do at all. Oh, this is sorry work! But I must harden my heart."

Joseph Smith looked at his chief, and felt a twinge of sympathy, tempered by admiration, for he saw clearly the terrible contest in his friend's mind and appreciated the heroic nature of the decision to which the inexorable logic of facts had driven it.

Cosmo Versál was again silent for a long time. Finally he appeared to throw off the incubus, and, with a return of his ordinary decisiveness, exclaimed:

"Enough. I have settled the general principle. Now to the choice."

Then, closing his eyes, as if to assist his memory, he ran over a list of names well known in the world of science, and Smith set them down in a long row under the name of "Abiel Pludder," with which he had begun.

At last Cosmo Versál ceased his dictation.

"There," he said, "that is the end of that category. I may add to or subtract from it later. According to probability, making allowance for bachelors, each name will represent three persons; there are seventy-five names, which means two hundred and twenty-five places reserved for science. I will

now make a series of other categories and assign the number of places for each."

He seized a sheet of paper and fell to work, while Smith looked on, drumming with his fingers and contorting his huge black eyebrows. For half an hour complete silence reigned, broken only by the scratching of Cosmo Versál's pencil. At the end of that time he threw down the pencil and held out the paper to his companion.

"Of course," he said, "this is not a complete list of human occupations. I have set down the principal ones as they occurred to me. There will be time to correct any oversight. Read it."

Smith, by force of habit, read it aloud:

<i>Occupation.</i>	<i>No. of Names.</i>	<i>Probable No. of Places.</i>
Science (already assigned).....	75	225
Rulers .....	15	45
Statesmen .....	10	30
Business magnates .....	10	30
Philanthropists .....	5	15
Artists .....	15	45
Religious teachers .....	20	60
School-teachers .....	20	60
Doctors .....	30	90
Lawyers .....	1	3
Writers .....	6	18
Editors .....	2	6
Players .....	14	42
Philosophers .....	1	3
Musicians .....	12	36
Speculative geniuses .....	3	9
"Society" .....	0	0
Agriculture and mechanics .....	90	270
Totals .....	329	987
Special reservations .....		13

Grand total, places .....1,000

Several times while Joseph Smith was reading he raised his eyebrows, as if in surprise or mental protest, but made no remark.

"Now," resumed Cosmo when the secretary had finished, "let us begin with the rulers. I do not know them as intimately as I know the men of science, but I am sure I have given them places enough. Suppose you take this book and call them over to me."

Smith opened the "year-book," and began:

"George Washington Samson, President of the United States."

"He goes. He is not intellectually brilliant, but he has strong sense and good moral fiber. I'll save him if for no other reason than his veto of the Antarctic Continent grab bill."

"Shen Su, Son of Heaven, Emperor of China."

"Put him down. I like him. He is a true Confucian."

Joseph Smith read off several other names at which Cosmo shook his head. Then he came to:

"Richard Edward, by the grace of God, King of Great—"

"Enough," broke in Cosmo; "we all know him—the man who has done more for peace by putting half the British navy out of commission than any other ruler in history. I can't leave him out."

"Achille Dumont, President of the French republic.

"Will you take him?"

"Admitted, for he has at last done his part to get the war microbe out of the human system."

Then followed a number of rulers who were not lucky enough to meet with Cosmo Versál's approval.

The selection was continued until fifteen names had been obtained, including that of the new, dark-skinned President of Liberia, and Cosmo declared that he would not add another one.

Then came the ten statesmen who were chosen with utter disregard to racial and national lines.

In selecting his ten business magnates, Cosmo stated his rule:

"I exclude no man simply because he is a billionaire. I consider the way he made his money. The world must always have rich men. How could I have built the ark if I had been poor?"

"Philanthropists," read Smith.

"I should have taken a hundred if I could have found them," said Cosmo. "There are plenty of candidates, but these five—naming them—are the only genuine ones, and I am doubtful about several of them. But I must run some chances, philanthropy being indispensable."

For the fifteen representatives of art Cosmo confined his selection largely to architecture.

"The building instinct must be preserved," he explained. "One of the first things we shall need after the flood recedes is a variety of all kinds of structures. But it's a pretty bad lot at the best. I shall try to reform their ideas during the voyage. As to the other artists, they, too, will need some hints that I can give them, and that they can transmit to their children."

Under the head of religious teachers, Cosmo remarked that he had tried to be fair to all forms of genuine faith that had a large following. The school-teachers represented the principal languages, and Cosmo selected the names from a volume on "The Educational Systems of the World," remarking that he ran some risk here, but it could not be avoided.

"Doctors—they get a rather liberal allowance, don't they?" asked Smith.

"Not half as large as I'd like to have it," was the response. "The doctors are the salt of the earth. It breaks my heart to have to leave out so many whose worth I know."

"And only one lawyer!" pursued Joseph. That's curious."

"Not in the least curious. Do you think I want to scatter broadcast the seeds of litigation in a regenerated world? Put down the name of Chief Justice Good of the United States Supreme Court. He'll see that equity prevails."

"And only six writers," continued Smith.

"And that's probably too many," said Cosmo. "Set down under that head Peter Inkson, whom I will engage to record the last scenes on the drowning earth; James Henry Blackwitt, who will tell the story of the voyage; Jules Bourgeois, who can describe the personnel of the passengers; Sergius Narishkoff, who will make a study of their psychology; and Nicolao Ludolfo, whose description of the ark will be an invaluable historic document a thousand years hence."

"But you have included no poets," remarked Smith.

"Not necessary," responded Cosmo. "Every human being is a poet at bottom."



"And no novelists," persisted the secretary.

"They will spring up thicker than weeds before the waters are half gone—at least, they would if I let one aboard the ark."

"Editors—two?"

"That's right. And two too many perhaps. I'll take Jinks of the *Thunderer*, and Bullock of the *Owl*."

"But both of them have persistently called you an idiot."

"For that reason I want them. No world could get along without some real idiots."

"I am rather surprised at the next entry, if you will permit me to speak of it," said Joseph Smith. "Here are forty-two places reserved for players."

"That means twenty-eight adults, and probably some youngsters who will be able to take parts," returned Cosmo, rubbing his hands with a satisfied smile. "I have taken as many players as I conscientiously could, not only because of their future value, but because they will do more than anything else to keep up the spirits of everybody in the ark. I shall have a stage set in the largest saloon."

Joseph Smith scowled, but held his peace. Then glancing again at the paper, he remarked that there was but one philosopher to be provided for.

"It is easy to name him," said Cosmo. "Kant Jacobi Leergeschwätz."

"Why he?"

"Because he will harmlessly represent the metaphysical *genus*, for nobody will ever understand him."

"Musicians twelve?"

"Chosen for the same reason as the players," said Cosmo, rapidly writing down twelve names because they were not easy to pronounce, and handing them to Smith, who duly copied them off.

When this was done Cosmo himself called out the next category—"speculative geniuses."

"I mean by that," he continued, "not Wall Street speculators, but foreseeing men who possess the gift of comprehending the 'seeds of time,' but who never get a hearing in their own day, and are hardly ever remembered by future ages which enjoy the fruits whose buds they recognized."

Cosmo mentioned two names which Joseph Smith had never heard, and told him they ought to be written in golden ink.

"They are *sui generis*, and alone in the world. They are the most precious cargo I shall have aboard," he added.

Smith shrugged his shoulders and stared blankly at the paper, while Cosmo sank into a reverie. Finally the secretary said, smiling with evident approval this time:

"Society' zero."

"Precisely, for what does 'society' represent except its own vanity?"

"And then comes agriculture and mechanics."

For this category Cosmo seemed to be quite as well prepared as for that of science. He took from his pocket a list already made out and handed it to Joseph Smith. It contained forty names marked "cultivators, farmers, gardeners," and fifty "mechanics."

"At the beginning of the twentieth century," he

said, "I should have had to reverse that proportion—in fact, my entire list would then have been top-heavy, and I should have been forced to give half of all the places to agriculture. But thanks to our scientific farming, the personnel employed in cultivation is now reduced to a minimum while showing maximum results. I have already stored the ark with seeds of the latest scientifically developed plants, and with all the needed implements and machinery."

"There yet remain thirteen places 'specially reserved,'" said Smith, referring to the paper.

"I shall fill those later," responded Cosmo, and then added with a thoughtful look, "I have some humble friends."

"The next thing," he continued, after a pause, "is to prepare the letters of invitation. But we have done enough for tonight. I will give you the form to-morrow."

And all this while half the world had been peacefully sleeping, and the other half going about its business, more and more forgetful of recent events, and if it had known what those two men were about it would probably have exploded in a gust of laughter.

## CHAPTER VII

### The Waters Begin to Rise

COSMO VERSAL had begun the construction of his ark in the latter part of June. It was now the end of November. The terrors of the Third Sign had occurred in September. Since then the sky had nearly resumed its normal color, there had been no storms, but the heat of summer had not relaxed. People were puzzled by the absence of the usual indications of autumn, although vegetation had shriveled on account of the persistent high temperature and constant sunshine.

"An extraordinary year," admitted the meteorologists," but there have been warm autumns before, and it is simply a question of degree. Nature will restore the balance and in good time, and probably we shall have a severe winter."

On the 30th of November, the brassy sky at New York showed no signs of change, when the following despatch, which most of the newspapers triple-lead and capped with stunning head-lines, quivered down from Churchill, Keewatin:

During last night the level of the water in Hudson Bay rose fully nine feet. Consternation reigned this morning when ship-owners found their wharves inundated, and vessels straining at short cables. The ice-breaker "Victoria" was lifted on the back of a sandy bar, having apparently been driven by a heavy wave, which must have come from the East. There are other indications that the mysterious rise began with a "bore" from the eastward. It is thought that the vast mass of icebergs set afloat on Davis's Strait by the long continued hot weather melting the shore glaciers, has caused a jam off the mouth of Hudson Strait, and turned the Polar current suddenly into the bay. But this is only a theory. A further rise is anticipated.

Startling as was this news, it might not by itself, have greatly disturbed the public mind if it had not been followed, in a few hours, by intelligence of immense floods in Alaska and in the basin of the Mackenzie River.

And the next day an etherogram from Obdorsk bordered on the grotesque, and filled many sensitive readers with horror.

It was said that in the vast tundra regions of Northern Siberia the frozen soil had dissolved into a bottomless slough, from whose depths arose prehistoric mammoths, their long hair matted with mud, and their curved tusks of ivory gleaming like trumpets over the field of their resurrection. The despatch concluded with a heart-rending account of the loss of a large party of ivory hunters, who, having ventured too far from the more solid land, suddenly found the ground turning to black ooze beneath their feet, and, despite their struggles, were all engulfed within sight of their friends, who dared not try to approach them.

Cosmo Versál, when interviewed, calmly remarked that the flood was beginning in the north, because it was the northern part of the globe that was nearest the heart of the nebula. The motion of the earth being northward, that end of its axis resembled the prow of a ship.

"But this," he added, "is not the true deluge. The Arctic ice-cap is melting, and the frozen soil is turning into a sponge in consequence of the heat of friction developed in the air by the inrush of nebulous matter. The aqueous vapor, however, has not yet touched the earth. It will begin to manifest its presence within a few days, and then the globe will drink water at every pore. The vapor will finally condense into falling oceans."

"What would you advise people to do?" asked one of the reporters.

The reply was given in a perfectly even voice, without change of countenance:

"Commit suicide! They have practically done that already."

It was nearly two weeks later when the first signs of a change of weather were manifested in middle latitudes. It came on with a rapid veiling of the sky, followed by a thin, misty, persistent rain. The heat grew more oppressive, but the rain did not become heavier, and after a few days there would be, for several consecutive hours, a clear spell, during which the sun would shine, though with a sickly, pallid light.

There was a great deal of mystification abroad, and nobody felt at ease. Still, the ebullitions of terror that had accompanied the earlier caprices of the elements were not renewed. People were getting used to these freaks.

In the middle of one of the clear spells a remarkable scene occurred at Mineola.

It was like a panorama of the seventh chapter of Genesis.

It was the procession of the beasts.

Cosmo Versál had concluded that the time was come for housing his animals in the ark. He wished to accustom them to their quarters before the voyage began. The resulting spectacle filled the juvenile world with irrespressible joy, and immensely interested their elders.

No march of a menagerie had ever come within sight of equaling this display. Many of the beasts were such as no one there had ever seen before. Cosmo had consulted experts, but, in the end, he had been guided in his choice by his own judgment. Nobody knew as well as he exactly what was wanted. He had developed in his mind a scheme for making the new world that was to emerge from the waters better in every respect than the old one.

Mingled with such familiar creatures as sheep, cows, dogs, and barn-yard fowls, were animals of the past, which the majority of the onlookers had only read about or seen pictures of, or perhaps, in a few cases, had been told of in childhood, by grandfathers long since sleeping in their graves.

Cosmo had rapidly collected them from all parts of the world, but as they arrived in small consignments, and were carried in closed vans, very few persons had any idea of what he was doing.

The greatest sensation was produced by four beautiful horses, which had been purchased at an enormous price from an English duke, who never would have parted with them—for they were almost the last living representatives of the equine race left on the earth—if financial stress had not compelled the sacrifice.

These splendid animals were dapple gray, with long white tails, and flowing manes borne proudly on their arching necks, and as they were led at the head of the procession, snorting at the unwonted scene about them, their eyes bright with excitement, prancing and curvetting, cries of admiration and rounds of applause broke from the constantly growing throngs of spectators.

Those who had only known the horse from pictures and sculptures were filled with astonishment by its living beauty. People could not help saying to themselves:

"What a pity that the honking auto, in its hundred forms of mechanical ugliness, should have driven these beautiful and powerful creatures out of the world! What could our forefathers have been thinking of?"

A few elephants, collected from African zoological gardens, and some giraffes, also attracted a great deal of attention, but the horses were the favorites with the crowd.

Cosmo might have had lions and tigers, and similar beasts, which had been preserved in larger numbers than the useful horses, but when Joseph Smith suggested their inclusion he shook his head, declaring that it was better that they should perish. As far as possible, he averred, he would eliminate all carnivores.

In some respects, even more interesting to the onlookers than the animals of the past, were the animals of the future that marched in the procession. Few of them had even been seen outside the experimental stations where they had been undergoing the process of artificial evolution.

There were the stately white Californian cattle, without horns, but of gigantic stature, the cows, it was said, being capable of producing twenty times more milk than their ancestral species, and a vastly superior quality.

There were the Australian rabbits, as large as Newfoundland dogs, though short-legged, and fur-

nishing food of the most exquisite flavor, and the Argentine sheep, great balls of snowy wool, moving smartly along on legs three feet in length.

The greatest astonishment was excited by the "grand Astoria terrapin," a developed species of diamond-back tortoise, whose exquisitely sculptured convex back, lurching awkwardly as it crawled, rose almost three feet above the ground; and the "new century turkey," which carried its beacon head and staring eyes as high as a tall man's hat.

The end of the procession was formed of animals familiar to everybody, and among them were cages of monkeys (concerning whose educational development Cosmo Versál had theories of his own) and a large variety of birds, together with boxes of insect eggs and chrysalises.

The delight of the boys who had chased after the procession culminated when the animals began to ascend the sloping ways into the ark.

The horses shied and danced, making the metallic flooring resound like a rattle of thunder; the elephants trumpeted; the sheep baaed and crowded themselves into inextricable masses against the guard-rails; the huge new cattle moved lumberingly up the slope, turning their big white heads inquiringly about; the tall turkeys stretched their red coral necks and gobbled with Brobdingnagian voices; and the great terrapins were ignominiously attached to cables and drawn up the side of the ark, helplessly waving their immense flappers in the air.

And when the sensational entry was finished, the satisfied crowd turned away, laughing, joking, chattering, with never a thought that it was anything more than the most amusing exhibition they had ever seen!

But when they got back in the city streets they met a flying squadron of yelling newsboys, and seizing the papers from their hands read, in big black letters:

## "AWFUL FLOOD IN THE MISSISSIPPI!

Thousands of People Drowned!

### THE STORM COMING THIS WAY!"

It was a startling commentary on the recent scene at the ark, and many turned pale as they read.

But the storm did not come in the way expected. The deluging rains appeared to be confined to the Middle West and the Northwest, while at New York the sky simply grew thicker and seemed to squeeze out moisture in the form of watery dust. This condition lasted for some time, and then came what everybody, even the most skeptical, had been secretly dreading.

#### *The ocean began to rise!*

The first perception of this startling fact, according to a newspaper account, came in a very strange roundabout way to a man living on the outskirts of the vast area of made ground where the great city had spread over what was formerly the Newark meadows and Newark Bay.

About three o'clock in the morning, this man, who it appears was a policeman off duty, was awakened by scurrying sounds in the house. He struck a light, and seeing dark forms issuing from the cel-

lar, went down to investigate. The ominous gleam of water, reflecting the light of his lamp, told him that the cellar was inundated almost to the top of the walls.

"Come down here, Annie!" he shouted to his wife. "Sure 'tis Coshmo Versál-al is invadin' the cellar with his flood. The rats are lavin' us."

Seeing that the slight foundation walls were crumbling, he hurried his family into the street, and not too soon, for within ten minutes the house was in ruins.

Neighbors, living in equally frail structures, were awakened, and soon other undermined houses fell. Terror spread through the quarter, and gradually half the city was aroused.

When day broke, residents along the water-front in Manhattan found their cellars flooded, and South and West Streets swimming with water, which was continually rising. It was noted that the hour was that of flood tide, but nobody had ever heard of a tide so high as this.

Alarm deepened into terror when the time for the tide to ebb arrived and there was no ebbing. On the contrary, the water continued to rise. The government observer at the Highlands telephoned that Sandy Hook was submerged. Soon it was known that Coney Island, Rockaway, and all the seaside places along the south shore of Long Island were under water. The mighty current poured in through the Narrows with the velocity of a mill-race. The Hudson, set backward on its course, rushed northward with a raging bore at its head that swelled higher until it licked the feet of the rock chimneys of the Palisades.

But when the terror inspired by this sudden invasion from the sea was at its height there came unexpected relief. The water began to fall more rapidly than it had risen. It rushed out through the Narrows faster than it had rushed in, and ships, dragged from their anchorage in the upper harbor, were carried out seaward, some being stranded on the sand-banks and shoals in the lower bay.

Now again houses standing on made ground, whose foundations had been undermined, fell with a crash, and many were buried in the ruins.

Notwithstanding the immense damage and loss of life, the recession of the waters immediately had a reassuring effect, and the public, in general, was disposed to be comforted by the explanation of the weather officials, who declared that what had occurred was nothing more than an unprecedentedly high tide, probably resulting from some unforeseen disturbance out at sea.

The phenomenon had been noted all along the Atlantic coast. The chief forecaster ventured the assertion that a volcanic eruption had occurred somewhere on the line from Halifax to Bermuda. He thought that the probable location of the upheaval had been at Munn's Reef, about half-way between those points, and the more he discussed his theory the readier he became to stake his reputation on its correctness, for, he said, it was impossible that any combination of the effects of high and low pressures could have created such a surge of the ocean, while a volcanic wave, combining with the regular oscillation of the tide, could have done it easily.

But Cosmo Versál smiled at this explanation, and said in reply:

"The whole Arctic ice-cap is dissolved, and the condensation of the nebula is at hand. But there is worse behind. When the waves come back it will rise higher."

As the time for the next flood-tide grew near, anxious eyes were on the watch to see how high the water would go. There was something in the mere manner of its approach that made the nerves tingle.

It speeded toward the beaches, combing into rollers at an unwonted distance from shore; plunged with savage violence upon the sands of the shallows, as if it would annihilate them; and then, spreading swiftly, ran with terrific speed up the strand, seeming to devour everything it touched. After each recoil it sprang higher and roared louder and grew blacker with the mud that it had ground up from the bottom. Miles inland the ground trembled with the fast-repeated shocks.

Again the Hudson was hurled backward until a huge bore of water burst over the wharves at Albany. Every foot of ground in New York less than twenty feet above the mean high tide level was inundated. The destruction was enormous, incalculable. Ocean liners, moored along the wharves were, in some cases, lifted above the level of the neighboring streets, and sent crashing into the buildings along the water-front.

Etherograms told, in broken sentences, of similar experiences on the western coasts of Europe, and from the Pacific came the news of the flooding of San Francisco, Los Angeles, Portland, Tacoma, Seattle, and every coast-lying town. On the western coast of South America the incoming waves broke among the foot-hills of the Andes.

It was as if the mighty basins of the world's two greatest oceans were being rocked to and fro, sending the waters spinning from side to side.

And to add to the horror of the situation, every volcano on the globe seemed to burst simultaneously into activity, probably through the effects of the invasion of sea-water into the subterranean incandescence, while the strain of the unwonted weight thrown upon the coasts broke open the tectonic lines of weakness in the earth's crust, causing the most terrible earthquakes, which destroyed much that the water could not reach.

From Alaska to Patagonia, from Kamchatka through Japan to the East Indies, from Mount Hekla to Vesuvius, Etna, and Teneriffe, the raging oceans were bordered with pouring clouds of volcanic smoke, hurled upward in swift succeeding puffs, as if every crater had become the stack of a stupendous steam-engine driven at its maddest speed; while immense rivers of lava flamed down the mountain flanks and plunged into the invading waters with reverberated roarings, hissings and explosions that seemed to shake the framework of the globe.

During the second awful shoreward heave of the Atlantic a scene occurred off New York Bay that made the stoutest nerves quiver. A great crowd had collected on the Highlands of the Navesink to watch the ingress of the tidal wave.

Suddenly, afar off, the smoke of an approaching

ocean liner was seen. It needed but a glance to show that she was struggling with tremendous surges. Sometimes she sank completely out of sight; then she reappeared, riding high on the waves. Those who had glasses recognized her. Word ran from mouth to mouth that it was the great Atlantis, the mightiest of the ocean monarchs, of a hundred thousand tons register, coming from Europe, and bearing, without question, many thousands of souls. She was flying signals of distress, and filling the ether with her inarticulate calls for help, which quavered into every radiograph station within a radius of hundreds of miles.

But, at the same time, she was battling nobly for herself and for the lives of her passengers and crew. From her main peak the Stars and Stripes streamed in the tearing wind. There were many in the watching throngs who personally knew her commander, Captain Basil Brown, and who felt that if any human being could bring the laboring ship through safely, he could. Aid from land was not to be thought of.

As she swiftly drew nearer, hurled onward by the resistless surges with the speed of an express-train, the captain was recognized on his bridge, balancing himself amid the lurches of the vessel; and even at that distance, and in those terrible circumstances there was something in his bearing perceptible to those who breathlessly watched him, through powerful glasses, which spoke of perfect self-command, entire absence of fear, and iron determination to save his ship or die with her under his feet.

It could be seen that he was issuing orders and watching their execution, but precisely what their nature was, of course, could only be guessed. His sole hope must be to keep the vessel from being cast ashore. There was no danger from the shoals, for they were by this time deeply covered by the swelling of the sea.

Slowly, slowly, with a terrific straining of mechanic energies, which pressed the jaws of the watchers together with spasmodic sympathy, as if their own nervous power were cooperating in the struggle, the gallant ship bore her head round to face the driving waves. From the ten huge, red stacks columns of inky black smoke poured out as the stokers crammed the furnaces beneath. It was man against nature, human nerve and mechanical science against blind force.

It began to look as if the Atlantis would win the battle. She was now fearfully close to the shore, but her bow had been turned into the very eye of the sea, and one could almost feel the tension of her steel muscles as she seemed to spring to the encounter. The billows that split themselves in quick succession on her sharp stem burst into shooting geysers three hundred feet high.

The hearts of the spectators almost ceased to beat. Their souls were wrapped up with the fate of the brave ship. They forgot the terrors of their own situation, the peril of the coming flood, and saw nothing but the agonized struggle before their eyes. With all their inward strength they prayed against the ocean.

Such a contest could not last long. Suddenly, as the Atlantis swerved a little aside, a surge that towered above her loftiest deck rushed upon her,

She was lifted like a cockleshell upon its crest, her huge hull spun around, and the next minute, with a crash that resounded above the roar of the maddened sea, she was dashed in pieces.

At the very last moment before the vessel disappeared in the whirling breakers, to be strewn in broken and twisted bits of battered metal upon the pounding sands, Captain Basil Brown was seen on the commander's bridge.

No sooner had this tragedy passed than the pent-up terror broke forth, and men ran for their lives, ran for their homes, ran to *do something*—something, but what?—to save themselves and their dear ones.

For now, at last, they *believed!*

## CHAPTER VIII

### Storming the Ark

**T**HERE was to be no more respite now. The time of warnings was past. The "signs" had all been shown to a skeptical and vacillating world, and at last the fulfilment was at hand.

There was no crying of "extras" in the streets, for men had something more pressing to think of than sending and reading news about their distresses and those of their fellow men. Every newspaper ceased publication; every business place was abandoned; there was no thought but of the means of escape.

But how should they escape? And whither should they fly?

The lower lying streets were under water. The Atlantic still surged back and forth as if the ocean itself were in agony. And every time the waves poured in they rose higher. The new shores of the bay, and the new coasts of Long Island and New Jersey, receding inward hour by hour, were strewn with the wrecks of hundreds of vessels of all kinds which had been caught by the surges and pitilessly hurled to destruction.

Even if men did not yet fully believe in Cosmo Versál's theory of a whelming nebula, they were terrified to the bottom of their souls by the conviction, which nobody could resist, that the vast ice-fields of the north, the glaciers of Greenland, the icy mountains of Alaska, had melted away under the terrible downpour of heat, and were swelling the oceans over their brims. And then a greater fear dropped like a blanket upon them. Some one thought of the *antarctic ice*.

The latest despatches that had come, before the cessation of all communication to the newspapers, had told of the prevalence of stifling heat throughout the southern hemisphere, and of the vast fleets of antarctic icebergs that filled the south sea. The mighty deposits of ice, towering to mountain heights, that stretched a thousand miles in every direction around the south pole, were melting as the arctic ice had melted, and, when the water thus formed was added to the already overflowing seas, to what elevation might not the flood attain!

The antarctic ice was known to be the principal mass of frozen water on the globe. The frigid cap of the north was nothing in comparison with it. It had long been believed that the weight of that tremendous accumulation unbalanced the globe and

was the chief cause of the unsteadiness of the earth's axis of rotation.

Every fresh exploration had only served to magnify the conception of the incredible vastness of that deposit. The skirts of the Antarctic Continent had proved to be rich in minerals wherever the rocks could find a place to penetrate through the gigantic burden of ice, and the principal nations had quarreled over the possession or control of these protruding bits of wealth-crammed strata. But behind the bordering cliffs of ice, rising in places a thousand feet above the level of the sea, and towering farther inland so high that this region became, in mean elevation, the loftiest on the planet, nothing but ice could be seen.

And now that ice was dissolving and flowing into the swollen oceans, adding billions of tons of water every minute!

Men did not stop to calculate, as Cosmo Versál had done, just how much the dissolution of all the ice and permanent snow of the globe would add to the volume of the seas. He knew that it would be but a drop in the bucket—although sufficient to start the flood—and that the great thing to be feared was the condensation of the aqueous nebula, already beginning to enwrap the planet in its stifling folds.

The public could understand the melting ice, although it could not fully understand the nebula; it could understand the swelling sea, and the raging rivers, and the lakes breaking over their banks—and the terror and despair became universal.

But what should they *do*?

Those who had thought of building arks hurried to see if the work might not yet be completed, but most of them had begun their foundations on low land, which was already submerged.

Then a cry arose, terrible in its significance and in its consequences—one of those cries that the vanished but unconquerable god Pan occasionally sets ring, nobody can tell how:

"Cosmo's ark! Get aboard! Storm it!"

And thereupon there was a mighty rush for Mineola. Nobody who caught the infection stopped to reason. Some of them had to wade through water, which in places was knee-deep. They came from various directions, and united in a yelling mob. They meant to carry the ark with a rush. They would not be denied. As the excited throngs neared the great vessel they saw its huge form rising like a mount of safety, with an American flag flapping about it, and they broke into a mighty cheer. On they sped, seized with the unreason of a crowd, shouting, falling over one another, struggling, fighting for places, men dragging their wives and children through the awful crush, many trampled helpless under the myriads of struggling feet—driving the last traces of sanity from one another's minds.

The foremost ranks presently spied Cosmo Versál, watching them from an open gangway sixty feet above their heads. They were dismayed at finding the approaches gone. How should they get into the ark? How could they climb up its vertical sides?

But they would find means. They would re-erect the approaches. They would *get in somehow*.

Cosmo waved them off with frantic gesticula-

tions; then, through a trumpet, he shouted in a voice audible above the din:

"Keep back, for your lives!"

But they paid no attention to him; they rushed upon the raised wall, surrounding the field where Cosmo had buried his mysterious lines of wire. Then the meaning of that enigmatical work was flashed upon them.

As the first arrivals laid their hands upon the top of the low wall they fell as if shot through the brain, tumbling backward on those behind. Others pushed wildly on, but the instant they touched the wall they too collapsed. Wicked blue-green sparks occasionally flashed above the struggling mass.

The explanation was clear. Cosmo, foreseeing the probability of a despairing attack, had surrounded the ark with an impassable electric barrier. The sound of a whirring dynamo could be heard. A tremendous current was flowing through the hidden wires and transmitting its paralyzing energy to the metallic crest of the wall.

Still those behind pushed on, until rank after rank had sunk helpless at the impregnable line of defense. They were not killed—at least, not many—but the shock was so paralyzing that those who had experienced its effect made no further attempts to cross the barrier. Many lay for a time helpless upon the sodden ground.

Cosmo and Joseph Smith, who had now appeared at his side, continued to shout warnings, which began to be heeded when the nature of the obstacle became known. The rush was stopped, and the multitude stood at bay, dazed, and uncertain what to do. Then a murmur arose, growing louder and more angry and threatening, until suddenly a shot was heard in the midst of the crowd, and Cosmo was seen to start backward, while Joseph Smith instantly dodged out of sight.

A cry arose:

"Shoot him! That's right! Shoot the devil! He's a witch! He's drowning the world!"

They meant it—at least, half of them did. It was the logic of terror.

Hundreds of shots were now fired from all quarters, and heads that had been seen fitting behind the various portholes instantly disappeared. The bullets rattled on the huge sides of the ark, but they came from small pistols and had not force enough to penetrate.

Cosmo Versál alone remained in sight. Occasionally a quick motion showed that even his nerves were not steady enough to defy the whistling of the bullets passing close; but he held his ground, and stretched out his hand to implore attention.

When the fusillade ceased for a moment he put his trumpet again to his lips and shouted:

"I have done my best to save you, but you would not listen. Although I know that you must perish, I would not myself harm a hair of your heads. Go back, I implore you. You may prolong your lives if you will fly to the highlands and the mountains—but here you cannot enter. *The ark is full.*"

Another volley of shots was the only answer. One broad-shouldered man forced his way to the front, took his stand close to the wall, and yelled in stentorian tones:

"Cosmo Versál, listen to me! You are the curse of the world! You have brought this flood upon us with your damnable incantations. Your infernal nebula is the seal of Satan! Here, beast and devil, here at my feet, lies my only son, slay by your hellish device. By the Eternal I swear you shall go back to the pit!"

Instantly a pistol flashed in the speaker's hand, and five shots rang in quick succession. One after another they whistled by Cosmo's head and flattened themselves upon the metal-work behind. Cosmo Versál, untouched, folded his arms and looked straight at his foe. The man, staring a moment confusedly, as if he could not comprehend his failure, threw up his arms with a despairing gesture, and fell prone upon the ground.

Then yells and shots once more broke out. Cosmo stepped back, and a great metallic door swung to, closing the gang-way.

But three minutes later the door opened, and the mob saw two machine-guns trained upon them.

Once more Cosmo appeared, with the trumpet. "If you fire again," he cried, "I shall spray you with bullets. I have told you how you can prolong your lives. Now go!"

Not another shot was fired. In the face of the guns, whose terrible power all comprehended, no one dared to make a hostile movement.

But, perhaps, if Cosmo Versál had not set new thoughts running in the minds of the assailants by telling them there was temporary safety to be found by seeking high ground, even the terror of the guns would not have daunted them. Now their hopefulness was reawakened, and many began to ponder upon his words.

"He says we must perish, and yet that we can find safety in the hills and mountains," said one man. "I believe half of that is a lie. We are not going to be drowned. The water won't rise much higher. The flood from the south pole that they talk about must be here by this time, and then what's left to come?"

"The nebula," suggested one.

"Aw, the nebula be hanged! There's no such thing! I live on high ground; I'm going to keep a sharp outlook, and if the water begins to shut off Manhattan I'll take my family up the Hudson to the Highlands. I guess old Storm King'll keep his head above. That's where I come from—up that way. I used to hear people say when I was a boy that New York was bound to sink some day. I used to laugh at that then, but it looks mighty like it now, don't it?"

"Say," put in another, "what did the fellow mean by saying the ark was full? That's funny, ain't it? Who's he got inside, anyway?"

"Oh, he ain't got nobody," said another.

"Yes, he has. I seen a goodish lot through the port-holes. He's got somebody, sure."

"A lot of fools like himself, most likely."

"Well, if he's a fool, and they's fools, what are we, I'd like to know? What did you come here for, hey?"

It was a puzzling question, followed by the remark:

"I guess' we fooled ourselves considerable. We got scared too easy."

"Maybe you'll feel scared again when you see the water climbing up the streets in New York. I don't half like this thing. I'm going to follow his advice and light out for higher ground."

Soon conversation of this sort was heard on all sides, and the crowd began to disperse, only those lingering behind who had friends or relatives that had been struck down at the fatal wall. It turned out that not more than one or two had been mortally shocked. The rest were able to limp away, and many had fully recovered within five minutes after suffering the shock. In half an hour not a dozen persons were in sight from the ark.

But when the retreating throngs drew near the shores of the Sound, and the East River, which had expanded into a true arm of the sea, and found that there had been a perceptible rise since they set out to capture the ark, they began to shake their heads and fear once more entered their hearts.

Thousands then and there resolved that they would not lose another instant in setting out for high land, up the Hudson, in Connecticut, among the hills of New Jersey. In fact, many had already fled thither, some escaping on aeros; and hosts would now have followed but for a marvelous change that came just before nightfall and prevented them.

For some days the heavens had alternately darkened and lightened, as gushes of mist came and went, but there had been no actual rain. Now, without warning, a steady downpour began. Even at the beginning it would have been called, in ordinary times, a veritable cloudburst; but it rapidly grew worse and worse, until there was no word in the vernacular or in the terminology of science to describe it.

It seemed, in truth, that "all the fountains of the great deep were broken up, and the windows of heaven were opened." The water thundered upon the roofs, and poured off them in torrents. In five minutes every sloping street had become an angry river, and every level place a swelling lake. People caught out of doors were almost beaten to the ground by the force of the water falling upon them as if they had been standing under a cataract.

In a short time every cellar and every basement was filled to overflowing, and in the avenues the flood, lapping every instant higher upon the door-steps and the walls, rushed by with frightful roarings, bearing in its awful embrace pieces of furniture, clothing, bedding, washed out of ground-floor rooms—and, alas! human beings; some motionless, already mercifully deprived of life, but others struggling and shouting for aid which could not be given.

So terrible a spectacle no one had ever looked upon, no one had ever imagined. Those who beheld it were too stunned to cry out, too overwhelmed with terror and horror to utter a word. They stood, or fell into chairs or upon the floor, trembling in every limb, with staring eyes and drooping jaws, passively awaiting their fate.

As night came on there was no light. The awful darkness of the Third Sign once more settled upon the great city, but now it was not the terror of indefinite expectation that crushed down

the souls of men and women—it was the weight of doom accomplished!

There was no longer any room for self-deception; every quaking heart felt now that *the nebula had come. Cosmo Versál had been right!*

After the water had attained a certain height in the street and yards, depending upon the ratio between the amount descending from the sky and that which could find its way to the rivers, the flood for the time being rose no higher. The actual drowning of New York could not happen until the Hudson and the East River should become so swollen that the water would stand above the level of the highest buildings, and turn the whole region round about, as far as the Orange hills, the Ramapo Mountains, the Highland, and the Housatonic hills, into an inland sea.

But before we tell that story we must return to see what was going on at Mineola. Cosmo Versál on that awful night when New York first knew beyond the shadow of a doubt, or the gleam of a hope, that it was doomed, presided over a remarkable assembly in the grand saloon of his ark.

## CHAPTER IX

### The Company of the Reprieved

**H**OW did it happen that Cosmo Versál was able to inform the mob when it assailed the ark that he had no room left?

Who composed his ship's company, whence had they come, and how had they managed to embark without the knowledge of the public?

The explanation is quite simple. It was all due to the tremendous excitement that had prevailed ever since the sea began to overflow. In the universal confusion people had to think of other things nearer their doors than the operations of Cosmo Versál. Since the embarkation of the animals the crowds had ceased to visit the field at Mineola, and it was only occasionally that even a reporter was sent there. Accordingly, there were many hours every day when no curiosity-seekers were in sight of the ark, and at night the neighborhood was deserted; and this state of affairs continued until the sudden panic which led to the attack that has been described.

Cosmo Versál, of course, had every reason to conceal the fact that he was carefully selecting his company. It was a dangerous game to play, and he knew it. The consequence was that he enjoined secrecy upon his invited guests, and conducted them, a few at a time, into the ark, assuring them that their lives might be in peril if they were recognized. And once under the domain of the fear which led them to accept his invitation, they were no less anxious than he to avoid publicity. Some of them probably desired to avoid recognition through dread of ridicule; for, after all, the flood might not turn out to be so bad as Cosmo had predicted.

So it happened that the ark was filled, little by little, and the public knew nothing about it.

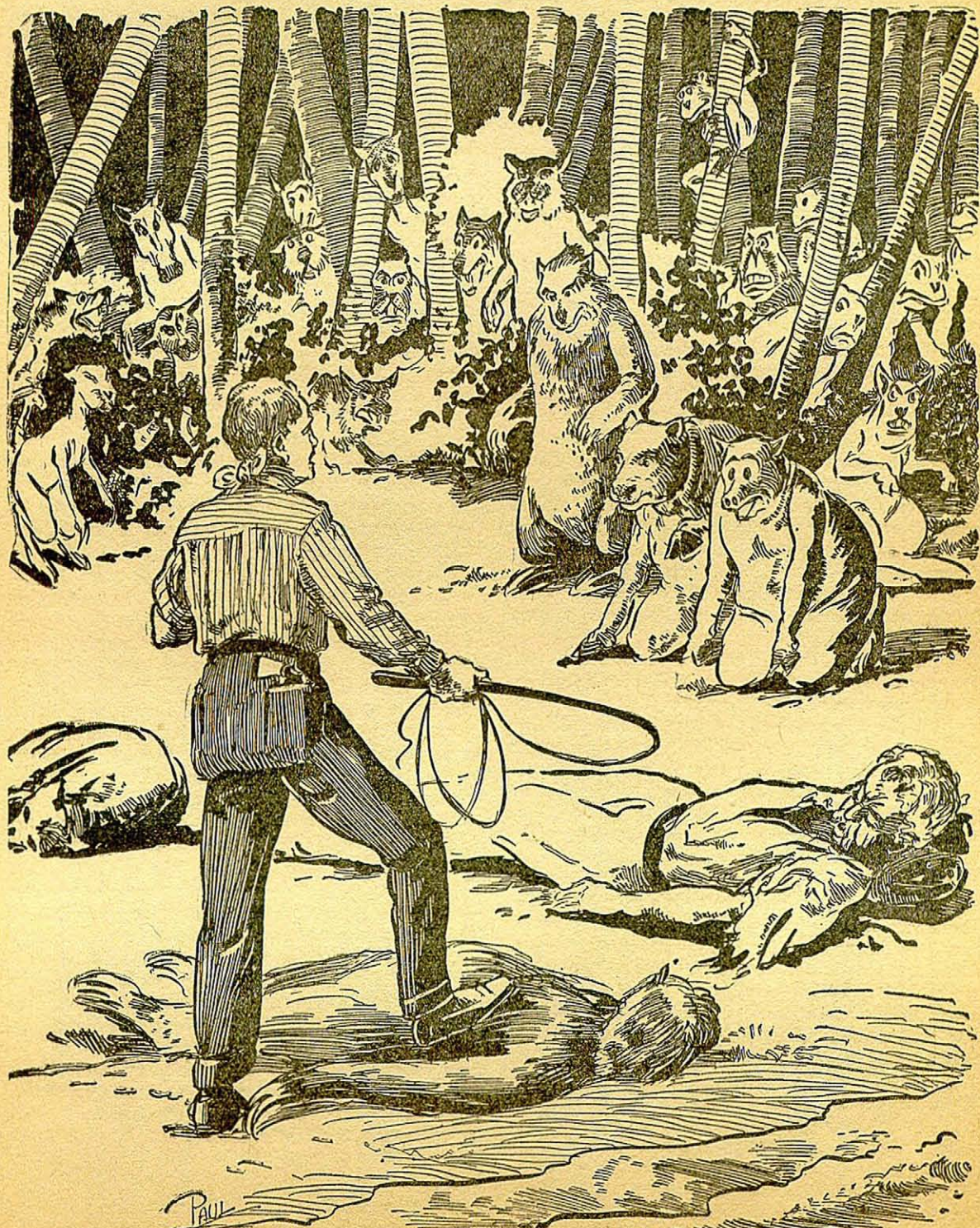
And who composed the throng which, while the awful downpour roared on the ellipsoidal cover of

(Continued on Page 767)

# The ISLAND of DR. MOREAU

By H. G. Wells

Author of "The War of the Worlds", "The Abyss", etc.



I faced these people, facing my fate in them, single-handed now,—literally single-handed, for I had a broken arm. In my pocket was a revolver with two empty chambers. I looked squarely into the faces of the advancing monsters. They avoided my eyes, and their quivering nostrils investigated the bodies that lay beyond me on the beach. I took half-a-dozen steps, picked up the blood-stained whip that lay beneath the body of the Wolf-man, and cracked it. They stopped and stared at me.



**T**HE writer of this story is picked up on the open ocean from a ship's boat, the ship having been lost in a collision. He is the only living inmate of the boat, and the vessel that picks him up carries a strange crew of human beings, as well as of animals. There seems to be some secrecy about it, but at last the ship reaches an island and the animals are taken ashore and some of the Island's inmates, who had been on the ship, go with them.

Our hero is put into the ship's dingey and sent adrift; the boat from the ship, however, which is

going to the Island, takes him in tow and he lands, and here his strange experiences begin. On the Island he finds some experiments in vivisection and the like apparently going on, and he meets curious beings who seem half animal, half human. The mystery grows as he sees many of what he terms "beast-men." He is in danger from some of them. Dr. Moreau, who is the head of the organization, whatever it may be, inspires dread, and the first part of the story leaves the problem of what is doing on the Island quite unsolved.


# THE ISLAND OF DR. MOREAU

By H. G. WELLS

## Part II

### CHAPTER XIV

#### Dr. Moreau Explains

ND now, Prendick, I will explain, said Doctor Moreau, so soon as we had eaten and drunk. "I must confess that you are the most dictatorial guest I ever entertained. I warn you that this is the last I shall do to oblige you. The next thing you threaten to commit suicide about, I sha'n't do, —even at some personal inconvenience."

He sat in my deck chair, a cigar half consumed in his white, dexterous-looking fingers. The light of the swinging lamp fell on his white hair; he stared through the little window out at the starlight. I sat as far away from him as possible, the table between us and the revolvers to hand. Montgomery was not present. I did not care to be with the two of them in such a little room.

"You admit that the vivisected human being, as you called it, is, after all, only the puma?" said Moreau. He had made me visit that horror in the inner room, to assure myself of its inhumanity.

"It is the puma," I said, "still alive, but so cut and mutilated as I pray I may never see living flesh again. Of all vile—"

"Never mind that," said Moreau; "at least, spare me those youthful horrors. Montgomery used to be just the same. You admit that it is the puma. Now be quiet, while I reel off my physiological lecture to you."

And forthwith, beginning in the tone of a man supremely bored, but presently warming a little, he explained his work to me. He was very simple and convincing. Now and then there was a touch of sarcasm in his voice. Presently I found myself hot with shame at our mutual positions.

The creatures I had seen were not men, had never been men. They were animals, humanised animals,

—triumphs of vivisection.

"You forget all that a skilled vivisector can do with living things," said Moreau. "For my own part, I'm puzzled why the things I have done here have not been done before. Small efforts, of course, have been made,—amputation, tongue-cutting, excisions. Of course you know  $\epsilon$  squint may be induced or cured by surgery? Then in the case of excisions you have all kinds of secondary changes, pigmentary disturbances, modifications of the passions, alterations in the secretion of fatty tissue. I have no doubt you have heard of these things?"

"Of course," said I. "But these foul creatures of yours—"

"All in good time," said he, waving his hand at me; "I am only beginning. Those are trivial cases of alteration. Surgery can do better things than that. There is building up as well as breaking down and changing. You have heard, perhaps, of

a common surgical operation resorted to in cases where the nose has been destroyed: a flap of skin is cut from the forehead, turned down on the nose, and heals in the new position. This is a kind of grafting in a new position of part of an animal upon itself. Grafting of freshly obtained material from another animal is also possible,—the case of teeth, for example. The grafting of skin and bone

is done to facilitate healing: the surgeon places in the middle of the wound pieces of skin snipped from another animal, or fragments of bone from a victim freshly killed. Hunter's cockspur—possibly you have heard of that—flourished on the bull's neck; and the rhinoceros rats of the Algerian zouaves are also to be thought of,—monsters manufactured by transferring a slip from the tail of an ordinary rat to its snout, and allowing it to heal in that position."

"Monsters manufactured!" said I. "Then you mean to tell me—"

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*AS you come to the second and final installment of this extraordinary story, you surely will want to know how it all ends; of course we are not going to tell you, but you will find that the ending is just as extraordinary as the whole tale. It will give you much food for thought to review this story, even months or years after it has first been read. It is of such quality as will leave a lasting impression, which in these days is true of few stories. We have an idea that Mr. Wells, when he wrote this story, did it as a travesty on humans and their thin coat of civilisation veneer, thereby exposing the human race and its foibles. If that was his intention, he certainly succeeded.*

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"Yes. These creatures you have seen are animals carven and wrought into new shapes. To that, to the study of the plasticity of living forms, my life has been devoted. I have studied for years, gaining in knowledge as I go. I see you look horrified, and yet I am telling you nothing new. It all lay in the surface of practical anatomy years ago, but no one had the temerity to touch it. It's not simply the outward form of an animal which I can change. The physiology, the chemical rhythm of the creature, may also be made to undergo an enduring modification,—of which vaccination and other methods of inoculation with living or dead matter are examples that will, no doubt, be familiar to you. A similar operation is the transfusion of blood,—with which subject, indeed, I began. These are all familiar cases. Less so, and probably far more extensive, were the operations of those mediæval practitioners who made dwarfs and beggar-cripples, show-monsters,—some vestiges of whose art still remain in the preliminary manipulation of the young mountebank or contortionist. Victor Hugo gives an account of them in 'L'Homme qui Rit.'—But perhaps my meaning grows plain now. You begin to see that it is a possible thing to transplant tissue from one part of an animal to another, or from one animal to another; to alter its chemical reactions and methods of growth; to modify the articulations of its limbs; and, indeed, to change it in its most intimate structure.

"And yet this extraordinary branch of knowledge has never been sought as an end, and systematically, by modern investigators until I took it up! Some of such things have been hit upon in the last resort of surgery; most of the kindred evidence that will recur to your mind has been demonstrated as it were by accident,—by tyrants, by criminals, by the breeders of horses and dogs, by all kinds of untrained, clumsy-handed men working for their own immediate ends. I was the first man to take up this question armed with antiseptic surgery, and with a really scientific knowledge of the laws of growth. Yet one would imagine it must have been practised in secret before. Such creatures as the Siamese Twins—And in the vaults of the Inquisition. No doubt their chief aim was artistic torture, but some at least of the inquisitors must have had a touch of scientific curiosity."

"But," said I, "these things—these animals *talk!*"

He said that was so, and proceeded to point out that the possibility of vivisection does not stop at a mere physical metamorphosis. A pig may be educated. The mental structure is even less determinate than the bodily. In our growing science of hypnotism we find the promise of a possibility of superseding old inherent instincts by new suggestions, grafting upon or replacing the inherited fixed ideas. Very much indeed of what we call moral education, he said, is such an artificial modification and perversion of instinct; pugnacity is trained into courageous self-sacrifice, and suppressed sexuality into religious emotion. And the great difference between man and monkey is in the larynx, he continued,—in the incapacity to frame delicately different sound-symbols by which thought could be sustained. In this I failed to agree with him, but with a certain incivility he declined to

notice my objection. He repeated that the thing was so, and continued his account of his work.

I asked him why he had taken the human form as a model. There seemed to me then, and there still seems to me now, a strange wickedness for that choice.

He confessed that he had chosen that form by chance. "I might just as well have worked to form sheep into llamas and llamas into sheep. I suppose there is something in the human form that appeals to the artistic turn more powerfully than any animal shape can. But I've not confined myself to man-making. Once or twice—" He was silent, for a minute perhaps. "These years! How they have slipped by! And here I have wasted a day saving your life, and am now wasting an hour explaining myself."

"But," said I, "I still do not understand. Where is your justification for inflicting all this pain? The only thing that could excuse vivisection to me would be some application—"

"Precisely," said he. "But, you see, I am differently constituted. We are on different platforms. You are a materialist."

"I am *not* a materialist," I began hotly.

"In my view—in my view. For it is just this question of pain that parts us. So long as visible or audible pain turns you sick; so long as your own pains drive you; so long as pain underlies your propositions about sin,—so long, I tell you, you are an animal, thinking a little less obscurely what an animal feels. This pain—"

I gave an impatient shrug at such sophistry.

"Oh, but it is such a little thing! A mind truly opened to what science has to teach must see that it is a little thing. It may be that save in this little planet, this speck of cosmic dust, invisible long before the nearest star could be attained,—it may be, I say, that nowhere else does this thing called *pain* occur. But the laws we feel our way towards—Why, even on this earth, even among living things, what pain is there?"

As he spoke he drew a little penknife from his pocket, opened the smaller blade, and moved his chair so that I could see his thigh. Then, choosing the place deliberately, he drove the blade into his leg and withdrew it.

"No doubt," he said, "you have seen that before. It does not hurt a pin-prick. But what does it show? The capacity for pain is not needed in the muscle, and it is not placed there,—is but little needed in the skin, and only here and there over the thigh is a spot capable of feeling pain. Pain is simply our intrinsic medical adviser to warn us and stimulate us. Not all living flesh is painful; nor is all nerve, not even all sensory nerve. There's no tint of pain, real pain, in the sensations of the optic nerve. If you wound the optic nerve, you merely see flashes of light,—just as disease of the auditory nerve merely means a humming in our ears. Plants do not feel pain, nor the lower animals; it's possible that such animals as the starfish and crayfish do not feel pain at all. Then with men, the more intelligent they become, the more intelligently they will see after their own welfare, and the less they will need the goad to keep them out of danger. I never yet heard of a useless

thing that was not ground out of existence by evolution sooner or later. Did you? And pain gets needless.

"Then I am a religious man, Prendick, as every sane man must be. It may be, I fancy, that I have seen more of the ways of this world's Maker than you,—for I have sought His laws, in *my* way, all my life, while you, I understand, have been collecting butterflies. And I tell you, pleasure and pain have nothing to do with heaven or hell. Pleasure and pain—bah! What is your theologian's ecstasy but Mahomet's houri in the dark? This store which men and women set on pleasure and pain, Prendick, is the mark of the beast upon them,—the mark of the beast from which they came! Pain, pain and pleasure, they are for us only so long as we wriggle in the dust.

"You see, I went on with this research just the way it led me. That is the only way I ever heard of true research going. I asked a question, devised some method of obtaining an answer, and got a fresh question. Was this possible or that possible? You cannot imagine what this means to an investigator, what an intellectual passion grows upon him! You cannot imagine the strange, colourless delight of these intellectual desires! The thing before you is no longer an animal, a fellow-creature, but a problem! Sympathetic pain,—all I know of it I remember as a thing I used to suffer from years ago. I wanted—it was the one thing I wanted—to find out the extreme limit of plasticity in a living shape."

"But," said I, "the thing is an abomination—"

"To this day I have never troubled about the ethics of the matter," he continued. "The study of Nature makes a man at last as remorseless as Nature. I have gone on, not heeding anything but the question I was pursuing; and the material has—dripped into the huts yonder. It is really eleven years since we came here, I and Montgomery and six Kanakas. I remember the green stillness of the island and the empty ocean about us, as though it was yesterday. The place seemed waiting for me.

"The stores were landed and the house was built. The Kanakas founded some huts near the ravine. I went to work here upon what I had brought with me. There were some disagreeable things happened at first. I began with a sheep, and killed it after a day and a half by a slip of the scalpel. I took another sheep, and made a thing of pain and fear and left it bound up to heal. It looked quite human to me when I had finished it; but when I went to it I was discontented with it. It remembered me, and was terrified beyond imagination; and it had no more than the wits of a sheep. The more I looked at it the clumsier it seemed, until at last I put the monster out of its misery. These animals without courage, these fear-haunted, pain-driven things, without a spark of pugnacious energy to face torment,—they are no good for man-making.

"Then I took a gorilla I had; and upon that, working with infinite care and mastering difficulty after difficulty, I made my first man. All the week, night and day, I moulded him. With him it was chiefly the brain that needed moulding; much had to be added, much changed. I thought him a fair speci-

men of the negroid type when I had finished him, and he lay bandaged, bound, and motionless before me. It was only when his life was assured that I left him and came into this room again, and found Montgomery much as you are. He had heard some of the cries as the thing grew human,—cries like those that disturbed *you* so. I didn't take him completely into my confidence at first. And the Kanakas too, had realised something of it. They were scared out of their wits by the sight of me. I got Montgomery over to me—in a way; but I and he had the hardest job to prevent the Kanakas deserting. Finally they did; and so we lost the yacht. I spent many days educating the brute,—altogether I had him for three or four months. I taught him the rudiments of English; gave him ideas of counting; even made the thing read the alphabet. But at that he was slow, though I've met with idiots slower. He began with a clean sheet, mentally; had no memories left in his mind of what he had been. When his scars were quite healed, and he was no longer anything but painful and stiff, and able to converse a little, I took him yonder and introduced him to the Kanakas as an interesting stowaway.

"They were horribly afraid of him at first, somehow,—which offended me rather, for I was conceited about him; but his ways seemed so mild, and he was so abject, that after a time they received him and took his education in hand. He was quick to learn, very imitative and adaptive, and built himself a hovel rather better, it seemed to me, than their own shanties. There was one among the boys a bit of a missionary, and he taught the thing to read, or at least to pick out letters, and gave him some rudimentary ideas of morality; but it seems the beast's habits were not all that is desirable.

"I rested from work for some days after this, and was in a mind to write an account of the whole affair to wake up English physiology. Then I came upon the creature squatting up in a tree and gibbering at two of the Kanakas who had been teasing him. I threatened him, told him the inhumanity of such a proceeding, aroused his sense of shame, and came home resolved to do better before I took my work back to England. I *have* been doing better. But somehow the things drift back again: the stubborn beast-flesh grows day by day back again. But I mean to do better things still. I mean to conquer that. This puma—

"But that's the story. All the Kanaka boys are dead now; one fell overboard off the launch, and one died of a wounded heel that he poisoned in some way with plant-juice. Three went away in the yacht, and I suppose and hope were drowned. The other one—was killed. Well, I have replaced them. Montgomery went on much as you are disposed to do at first, and then—"

"What became of the other one?" said I, sharply,—"the other Kanaka who was killed?"

"The fact is, after I had made a number of human creatures I made a Thing." He hesitated.

"Yes," said I.

"It was killed."

"I don't understand," said I; "do you mean to say—"

"It killed the Kanakas—yes. It killed several

other things it caught. We chased it for a couple of days. It only got loose by accident—I never meant it to get away. It wasn't finished. It was purely an experiment. It was a limbless thing, with a horrible face, that writhed along the ground in a serpentine fashion. It was immensely strong, and in infuriating pain. It lurked in the woods for some days, until we hunted it; and then it wriggled into the northern part of the island, and we divided the party to close in upon it. Montgomery insisted upon coming with me. The man had a rifle; and when his body was found, one of the barrels was curved into the shape of an S and very nearly bitten through. Montgomery shot the thing. After that I stuck to the ideal of humanity—except for little things."

He became silent. I sat in silence watching his face.

"So for twenty years altogether—counting nine years in England—I have been going on; and there is still something in everything I do that defeats me, makes me dissatisfied, challenges me to further effort. Sometimes I rise above my level, sometimes I fall below it; but always I fall short of the things I dream. The human shape I can get now, almost with ease, so that it is lithe and graceful, or thick and strong; but often there is trouble with the hands and the claws,—painful things, that I dare not shape too freely. But it is in the subtle grafting and reshaping one must needs do to the brain that my trouble lies. The intelligence is often oddly low, with unaccountable blank ends, unexpected gaps. And least satisfactory of all is something that I cannot touch, somewhere—I cannot determine where—in the seat of the emotions. Cravings, instincts, desires that harm humanity, a strange hidden reservoir to burst forth suddenly and inundate the whole being of the creature with anger, hate, or fear. These creatures of mine seemed strange and uncanny to you so soon as you began to observe them; but to me, just after I make them, they seem to be indisputably human beings. It's afterwards, as I observe them, that the persuasion fades. First one animal trait, then another, creeps to the surface and stares out at me. But I will conquer yet! Each time I dip a living creature into the bath of burning pain, I say, "This time I will burn out all the animal; this time I will make a rational creature of my own!" After all, what is ten years? Men have been a hundred thousand in the making." He thought darkly. "But I am drawing near the fastness. This puma of mine—" After a silence, "And they revert. As soon as my hand is taken from them the beast begins to creep back, begins to assert itself again." Another long silence, "Then you take the things you make into those dens?" said I.

"They go. I turn them out when I begin to feel the beast in them, and presently they wander there. They all dread this house and me. There is a kind of travesty of humanity over there. Montgomery knows about it, for he interferes in their affairs. He has trained one or two of them to our service. He's ashamed of it, but I believe he half likes some of those beasts. It's his business, not mine. They only sicken me with a sense of failure. I take no interest in them. I fancy they follow in the lines

the Kanaka missionary marked out, and have a kind of mockery of a rational life, poor beasts! There's something they call the Law. Sing hymns about 'all thine.' They build themselves their dens, gather fruit, and pull herbs—marry even. But I can see through it all, see into their very souls, and see there nothing but the souls of beasts, beasts that perish, anger and the lusts to live and gratify themselves.—Yet they're odd; complex, like everything else alive. There is a kind of upward striving in them, part vanity, part waste sexual emotion, part waste curiosity. It only mocks me. I have some hope of that puma. I have worked hard at her head and brain—

"And now," said he, standing up after a long gap of silence, during which we had each pursued our own thoughts, "what do you think? Are you in fear of me still?"

I looked at him, and saw but a white-faced, white-haired man, with calm eyes. Save for his serenity, the touch almost of beauty that resulted from his set tranquillity and his magnificent build, he might have passed muster among a hundred other comfortable old gentlemen. Then I shivered. By way of answer to his second question, I handed him a revolver with either hand.

"Keep them," he said, and snatched at a yawn. He stood up, stared at me for a moment, and smiled. "You have had two eventful days," said he. "I should advise some sleep. I'm glad it's all clear. Good-night." He thought me over for a moment, then went out by the inner door.

I immediately turned the key in the outer one. I sat down again; sat for a time in a kind of stagnant mood, so weary, emotionally, mentally, and physically, that I could not think beyond the point at which he had left me. The black window stared at me like an eye. At last with an effort I put out the light and got into the hammock. Very soon I was asleep.

## CHAPTER XV

### Concerning the Beast Folk

I WOKE early. Moreau's explanation stood before my mind, clear and definite, from the moment of my awakening. I got out of the hammock and went to the door to assure myself that the key was turned. Then I tried the window-bar, and found it firmly fixed. That these man-like creatures were in truth only bestial monsters, mere grotesque travesties of men, filled me with a vague uncertainty of their possibilities which was far worse than any definite fear.

A tapping came at the door, and I heard the glutinous accents of M'ling speaking. I pocketed one of the revolvers (keeping one hand upon it), and opened to him.

"Good-morning, sair," he said, bringing in, in addition to the customary herb-breakfast, an ill-cooked rabbit. Montgomery followed him. His roving eye caught the position of my arm and he smiled askew.

The puma was resting to heal that day; but Moreau, who was singularly solitary in his habits, did not join us. I talked with Montgomery to clear my ideas of the way in which the Beast Folk

lived. In particular, I was urgent to know how these inhuman monsters were kept from falling upon Moreau and Montgomery and from rending one another. He explained to me that the comparative safety of Moreau and himself was due to the limited mental scope of these monsters. In spite of their increased intelligence and the tendency of their animal instincts to reawaken, they had certain *fixed ideas* implanted by Moreau in their minds, which absolutely bounded their imaginations. They were really hypnotised; had been told that certain things were impossible, and that certain things were not to be done, and these prohibitions were woven into the texture of their minds beyond any possibility of disobedience or dispute.

Certain matters, however, in which old instinct was at war with Moreau's convenience, were in a less stable condition. A series of propositions called the Law (I had already heard them recited) battled in their minds with the deep-seated, ever-rebellious cravings of their animal natures. This Law they were ever repeating, I found, and ever breaking. Both Montgomery and Moreau displayed particular solicitude to keep them ignorant of the taste of blood; they feared the inevitable suggestions of that flavour. Montgomery told me that the Law, especially among the feline Beast People, became oddly weakened about nightfall; that then the animal was at its strongest; that a spirit of adventure sprang up in them at the dusk, when they would dare things they never seemed to dream about by day. To that I owed my stalking by the Leopard-man, on the night of my arrival. But during these earlier days of my stay they broke the Law only furtively and after dark; in the daylight there was a general atmosphere of respect for its multifarious prohibitions.

And here perhaps I may give a few general facts about the island and the Beast People. The island, which was of irregular outline and lay low upon the wide sea, had a total area, I suppose, of seven or eight square miles.<sup>1</sup> It was volcanic in origin, and was now fringed on three sides by coral reefs; some fumaroles to the northward, and a hot spring, were the only vestiges of the forces that had long since originated it. Now and then a faint quiver of earthquake would be sensible, and sometimes the ascent of the spire of smoke would be rendered tumultuous by gusts of steam; but that was all. The population of the island, Montgomery informed me, now numbered rather more than sixty of these strange creations of Moreau's art, not counting the smaller monstrosities which lived in the undergrowth and were without human form. Altogether he had made nearly a hundred and twenty; but many had died, and others—like the writhing Footless Thing of which he had told me—had come by violent ends. In answer to my question, Montgomery said that they actually bore offspring, but that these generally died. When they lived, Moreau took them and stamped the human form upon them. There was no evidence of the inheritance of their acquired human characteristics. The females were less numerous than the males, and liable to much furtive persecution in spite of the monogamy the Law enjoined.

It would be impossible for me to describe these

<sup>1</sup>This description corresponds in every respect to Noble's Isle—C. E. P.

Beast People in detail; my eye has had no training in details, and unhappily I cannot sketch. Most striking, perhaps, in their general appearance was the disproportion between the legs of these creatures and the length of their bodies; and yet—so relative is our idea of grace—my eye became habituated to their forms, and at last I even fell in with their persuasion that my own long thighs were ungainly. Another point was the forward carriage of the head, and the clumsy and inhuman curvature of the spine. Even the Ape-man lacked that inward sinuous curve of the back which makes the human figure so graceful. Most had their shoulders hunched clumsily, and their short fore-arms hung weakly at their sides. Few of them were conspicuously hairy, at least until the end of my time upon the island.

The next most obvious deformity was in their faces, almost all of which were prognathous, malformed about the ears, with large and protuberant noses, very furry or very bristly hair, and often strangely-coloured or strangely-placed eyes. None could laugh, though the Ape-man had a chattering titter. Beyond these general characters their heads had little in common; each preserved the quality of its particular species: the human mark distorted but did not hide the leopard, the ox, or the sow, or other animal or animals, from which the creature had been moulded. The voices, too, varied exceedingly. The hands were always malformed; and though some surprised me by their unexpected human appearance, almost all were deficient in the number of the digits, clumsy about the finger-nails, and lacking any tactile sensibility.

The two most formidable Animal Men were my Leopard-man and a creature made of hyena and swine. Larger than these were the three bull-creatures who rowed in the boat. Then came the silvery-hairy-man, who was also the Sayer of the Law, M'ling, and a satyr-like creature of ape and goat. There were three Swine-men and a Swine-woman, a mare-rhinoceros-creature, and several other females whose sources I did not ascertain. There were several wolf-creatures, a bear-bull, and a Saint-Bernard-man. I have already described the Ape-man, and there was a particularly hateful (and evil-smelling) old woman made of vixen and bear, whom I hated from the beginning. She was said to be a passionate votary of the Law. Smaller creatures were certain dappled youths and my little sloth-creature. But enough of this catalogue.

At first I had a shivering horror of the brutes, felt all too keenly that they were still brutes; but insensibly I became a little habituated to the idea of them, and moreover I was affected by Montgomery's attitude towards them. He had been with them so long that he had come to regard them as almost normal human beings. His London days seemed a glorious, impossible past to him. Only once in a year or so did he go to Africa to deal with Moreau's agent, a trader in animals there. He hardly met the finest type of mankind in that seafaring village of Spanish mongrels. The men aboard-ship, he told me, seemed at first as strange to him as the Beast Men seemed to me,—unnaturally long in the leg, flat in the face, prominent in the forehead, suspicious, dangerous, and coldhearted.

In fact, he did not like men; his heart had warmed to me, he thought, because he had saved my life. I fancied even then that he had a sneaking kindness for some of these metamorphosed brutes, a vicious sympathy with some of their ways, but that he attempted to veil it from me at first.

M'ling, the black-face man, Montgomery's attendant, the first of the Beast Folk I had encountered, did not live with the others across the island, but in a small kennel at the back of the enclosure. The creature was scarcely so intelligent as the Ape-man, but far more docile, and the most human-looking of all the Beast Folk; and Montgomery had trained it to prepare food, and indeed to discharge all the trivial domestic offices that were required. It was a complex trophy of Moreau's horrible skill,—a bear, tainted with dog and ox, and one of the most elaborately made of all his creatures. It treated Montgomery with a strange tenderness and devotion. Sometimes he would notice it, pat it, call it half-mocking, half-jocular names, and so make it caper with extraordinary delight; sometimes he would ill-treat it, especially after he had been at the whisky, kicking it, beating it, pelting it with stones or lighted fuses. But whether he treated it well or ill, it loved nothing so much as to be near him.

I say I became habituated to the Beast People, that a thousand things which had seemed unnatural and repulsive speedily became natural and ordinary to me. I suppose everything in existence takes its colour from the average hue of its surroundings. Montgomery and Moreau were too peculiar and individual to keep my general impressions of humanity well defined. I would see one of the clumsy bovine-creatures who worked the launch, treading heavily through the undergrowth, and find myself asking, trying hard to recall, how he differed from some really human yokel trudging home from his mechanical labours; or I would meet the Fox-bear woman's vulpine, shifty face, strangely human in its speculative cunning, and even imagine I had met it before in some city byway.

Yet every now and then the beast would flash out upon me beyond doubt or denial. An ugly-looking man, a hunch-backed human savage to all appearance, squatting in the aperture of one of the dens, would stretch his arms and yawn, showing with startling suddenness scissor-edged incisors and sabre-like canines, keen and brilliant as knives. Or in some narrow pathway, glancing with a transitory daring into the eyes of some lithe, white-swathed female figure, I would suddenly see (with a spasmodic revulsion) that she had slit-like pupils, or glancing down note the curving nail with which she held her shapeless wrap about her. It is a curious thing, by the bye, for which I am quite unable to account, that these weird creatures—the females, I mean—had in the earlier days of my stay an instinctive sense of their own repulsive clumsiness, and displayed in consequence a more than human regard for the decency and decorum of extensive costume.

## CHAPTER XVI

### How the Beast Folk Taste Blood

**M**Y inexperience as a writer betrays me, and I wander from the thread of my story.

After I had breakfasted with Mont-

gomery, he took me across the island to see the fumarole and the source of the hot spring into whose scalding waters I had blundered on the previous day. Both of us carried whips and loaded revolvers. While going through a leafy jungle on our road thither, we heard a rabbit squealing. We stopped and listened, but we heard no more; and presently we went on our way, and the incident dropped out of our minds. Montgomery called my attention to certain little pink animals with long hind-legs, that went leaping through the undergrowth. He told me they were creatures made of the offspring of the Beast People, that Moreau had invented. He had fancied they might serve for meat, but a rabbit-like habit of devouring their young had defeated this intention. I had already encountered some of these creatures,—once during my moonlight flight from the Leopard-man, and once during my pursuit by Moreau on the previous day. By chance, one hopping to avoid us leapt into the hole caused by the uprooting of a wind-blown tree; before it could extricate itself we managed to catch it. It spat like a cat, scratched and kicked vigorously with its hind-legs, and made an attempt to bite; but its teeth were too feeble to inflict more than a painless pinch. It seemed to me rather a pretty little creature; and as Montgomery stated that it never destroyed the turf by burrowing, and was very cleanly in its habits, I should imagine it might prove a convenient substitute for the common rabbit in gentlemen's parks.

We also saw on our way the trunk of a tree barked in long strips and splintered deeply. Montgomery called my attentions to this. "Not to claw bark of trees, *that is the Law*," he said. "Much some of them care for it!" It was after this, I think, that we met the Satyr and the Ape-man. The Satyr was a gleam of classical memory on the part of Moreau,—his face bovine in expression, like the coarser Hebrew type; his voice a harsh bleat, his nether extremities Satanic. He was gnawing the husk of a pod-like fruit as he passed us. Both of them saluted Montgomery.

"Hail," said they, "to the Other with the Whip."

"There's a Third with a Whip now," said Montgomery. "So you'd better mind!"

"Was he not made?" said the Ape-man. "He said—he said he was made."

The Satyr-man looked curiously at me. "The Third with the Whip, he that walks weeping into the sea, has a thin white face."

"He has a thin long whip," said Montgomery.

"Yesterday he bled and wept," said the Satyr. "You never bleed nor weep. The Master does not bleed or weep."

"Ollendorffian beggar!" said Montgomery, "you'll bleed and weep if you don't look out!"

"He has five fingers, he is a five-man like me," said the Ape-man.

"Come along, Prendick," said Montgomery, taking my arm; and I went on with him.

The Satyr and the Ape-man stood watching us and making other remarks to each other.

"He says nothing," said the Satyr. "Men have voices."

"Yesterday he asked me of things to eat," said the Ape-man. "He did not know."

Then they spoke inaudible things, and I heard the Satyr laughing.

It was on our way back that we came upon the dead rabbit. The red body of the wretched little beast was rent to pieces, many of the ribs stripped white, and the backbone indisputably gnawed.

At that Montgomery stopped. "Good God!" said he, stooping down, and picking up some of the crushed vertebrae to examine them more closely. "Good God!" he repeated, "what can this mean?"

"Some carnivore of yours has remembered its old habits," I said after a pause. "This backbone has been bitten through."

He stood staring, with his face white and his lip pulled askew. "I don't like this," he said slowly.

"I saw something of the same kind," said I, "the first day I came here."

"The devil you did! What was it?"

"A rabbit with its head twisted off."

"The day you came here?"

"The day I came here. In the undergrowth at the back of the enclosure, when I went out in the evening. The head was completely wrung off."

He gave a long, low whistle.

"And what is more, I have an idea which of your brutes did the thing. It's only a suspicion, you know. Before I came on the rabbit I saw one of your monsters drinking in the stream."

"Sucking his drink?"

"Yes."

"Not to suck your drink; *that* is the Law.' Much the brutes care for the Law, eh? when Moreau's not about!"

"It was the brute who chased me."

"Of course," said Montgomery; "it's just the way with carnivores. After a kill, they drink. It's the taste of blood, you know.—What was the brute like?" he continued. "Would you know him again?" He glanced about us, standing astride over the mess of dead rabbit, his eyes roving among the shadows and screens of greenery, the lurking-places and ambuscades of the forest that bounded us in. "The taste of blood," he said again.

He took out his revolver, examined the cartridges in it and replaced it. Then he began to pull at his drooping lip.

"I think I should know the brute again," I said. "I stunned him. He ought to have a handsome bruise on the forehead of him."

"But then we have to *prove* that he killed the rabbit," said Montgomery. "I wish I'd never brought the things here."

I should have gone on, but he stayed there thinking over the mangled rabbit in a puzzle-headed way. As it was, I went to such a distance that the rabbit remains were hidden.

"Come on!" I said.

Presently he woke up and came towards me. "You see," he said, almost in a whisper, "they are all supposed to have a fixed idea against eating anything that runs on land. If some brute has by any accident tasted blood—"He went on some way in silence. "I wonder what can have happened," he said to himself. Then, after a pause again; "I did a foolish thing the other day. That servant of mine—I showed him how to skin and cook a rabbit. It's odd—I saw him licking his hands—

It never occurred to me." Then, "We must put a stop to this. I must tell Moreau."

He could think of nothing else on our homeward journey.

Moreau took the matter even more seriously than Montgomery, and I need scarcely say that I was affected by their evident consternation.

"We must make an example," said Moreau. "I've no doubt in my own mind that the Leopard-man was the sinner. But how can we prove it. I wish, Montgomery, you had kept your taste for meat in hand, and gone without these exciting novelties. We may find ourselves in a mess yet, through it."

"I was a silly ass," said Montgomery. "But the thing's done now; and you said I might have them, you know."

"We must see to the thing at once," said Moreau.

"I suppose if anything should turn up, M'ling can take care of himself?"

"I'm not so sure of M'ling," said Montgomery.

"I think I *ought* to know him."

In the afternoon, Moreau, Montgomery, myself, and M'ling went across the island to the huts in the ravine. We three were armed; M'ling carried the little hatchet he used in chopping firewood, and some coils of wire. Moreau had a huge cowherd's horn slung over his shoulder.

"You will see a gathering of the Beast People," said Montgomery. "It is a pretty sight!"

Moreau said not a word on the way, but the expression of his heavy, white-fringed face was grimly set.

We crossed the ravine down which smoked the stream of hot water, and followed the winding pathway through the canebrakes until we reached a wide area covered over with a thick, powdery yellow substance which I believe was sulphur. Above the shoulder of a weedy bank the sea glittered. We came to a kind of shallow natural amphitheatre, and here the four of us halted. Then Moreau sounded the horn, and broke the sleeping stillness of the tropical afternoon. He must have had strong lungs. The hooting note rose and rose amidst its echoes, to at last an ear-penetrating intensity.

"Ah!" said Moreau, letting the curved instrument fall to his side again.

Immediately there was a crashing through the yellow canes, and a sound of voices from the dense green jungle that marked the morass through which I had run on the previous day. Then at three or four points on the edge of the sulphurous area appeared the grotesque forms of the Beast People hurrying towards us. I could not help a creeping horror, as I perceived first one and then another trot out from the trees or reeds and come shambling along over the hot dust. But Moreau and Montgomery stood calmly enough; and, perforce, I stuck beside them.

First to arrive was the Satyr, strangely unreal for all that he cast a shadow and tossed the dust with his hoofs. After him from the brake came a monstrous lout, a thing of horse and rhinoceros, chewing a straw as it came; then appeared the Swine-woman and two Wolf-women; then the Fox-bear witch, with her red eyes in her peaked red face, and then others,—all hurrying eagerly. As they came forward they began to cringe towards

Moreau and chant, quite regardless of one another, fragments of the latter half of the litany of the Law,—“His is the Hand that wounds; His is the Hand that heals,” and so forth. As soon as they had approached within a distance of perhaps thirty yards they halted, and bowing on knees and elbows began flinging the white dust upon their heads.

Imagine the scene if you can! We three blue-clad men, with our misshapen black-faced attendant, standing in a wide expanse of sunlit yellow dust under the blazing blue sky, and surrounded by this circle of crouching and gesticulating monstrosities, —some almost human save in their subtle expression and gestures, some like cripples, some so strangely distorted as to resemble nothing but the denizens of our wildest dreams; and, beyond, the reedy lines of a canebrake in one direction, a dense tangle of palm-trees on the other, separating us from the ravine with the huts, and to the north the hazy horizon of the Pacific Ocean.

“Sixty-two, sixty-three,” counted Moreau. “There are four more.”

“I do not see the Leopard-man,” said I.

Presently Moreau sounded the great horn again, and at the sound of it all the Beast People writhed and grovelled in the dust. Then, slinking out of the canebrake, stooping near the ground and trying to join the dust-throwing circle behind Moreau’s back, came the Leopard-man. The last of the Beast People to arrive was the little Ape-man. The earlier animals, hot and weary with their grovelling, shot vicious glances at him.

“Cease!” said Moreau, in his firm, loud voice; and the Beast People sat back upon their hams and rested from their worshipping.

“Where is the Sayer of the Law?” said Moreau, and the hairy-grey monster bowed his face in the dust.

“Say the words!” said Moreau.

Forthwith all in the kneeling assembly, swaying from side to side and dashing up the sulphur with their hands,—first the right hand and a puff of dust, and then the left,—began once more to chant their strange litany. When they reached, “Not to eat Flesh or Fowl, *that* is the Law,” Moreau held up his lank white hand.

“Stop!” he cried, and there fell absolute silence upon them all.

I think they all knew and dreaded what was coming. I looked round at their strange faces. When I saw their wincing attitudes and the furtive dread in their bright eyes, I wondered that I had ever believed them to be men.

“That Law has been broken!” said Moreau.

“None escape,” from the faceless creature with the silvery hair. “None escape,” repeated the kneeling circle of Beast People.

“Who is he?” cried Moreau, and looked round at their faces, cracking his whip. I fancied the Hyena-swine looked dejected, so too did the Leopard-man. Moreau stopped, facing this creature, who cringed towards him with the memory and dread of infinite torment. “Who is he?” repeated Moreau, in a voice of thunder.

“Evil is he who breaks the Law,” chanted the Sayer of the Law.

Moreau looked into the eyes of the Leopard-man,

and seemed to be dragging the very soul out of the creature.

“Who breaks the Law—” said Moreau, taking his eyes off his victim, and turning toward us (it seemed to me there was a touch of exultation in his voice).

“Goes back to the House of Pain,” they all clamoured,—“goes back to the House of Pain, O Master!”

“Back to the House of Pain,—back to the House of Pain,” gabbled the Ape-man, as though the idea was sweet to him.

“Do you hear?” said Moreau, turning back to the criminal, “my friend—Hullo!”

For the Leopard-man, released from Moreau’s eye, had risen straight from his knees, and now, with eyes aflame and his huge feline tusks flashing out from under his curling lips, leapt towards his tormentor. I am convinced that only the madness of unendurable fear could have prompted this attack. The whole circle of threescore monsters seemed to rise about us. I drew my revolver. The two figures collided. I saw Moreau reeling back from the Leopard-man’s blow. There was a furious yelling and howling all about us. Every one was moving rapidly. For a moment I thought it was a general revolt. The furious face of the Leopard-man flashed by mine, with M’ling close in pursuit. I saw the yellow eyes of the Hyena-swine blazing with excitement, his attitude as if he were half resolved to attack me. The Satyr, too, glared at me over the Hyena-swine’s hunched shoulders. I heard the crack of Moreau’s pistol, and saw the pink flash dart across the tumult. The whole crowd seemed to swing round in the direction of the glint of fire, and I too was swung round by the magnetism of the movement. In another second I was running, one of a tumultuous shouting crowd, in pursuit of the escaping Leopard-man.

That is all I can tell definitely. I saw the Leopard-man strike Moreau, and then everything spun about me until I was running headlong. M’ling was ahead, close in pursuit of the fugitive. Behind, their tongues already lolling out, ran the Wolf-women in great leaping strides. The Swine folk followed, squealing with excitement, and the two Bull-men in their swathings of white. Then came Moreau in a cluster of the Beast People, his wide-brimmed straw hat blown off, his revolver in hand, and his lank white hair streaming out. The Hyena-swine ran beside me, keeping pace with me and glancing furtively at me out of his canine eyes, and the others came pattering and shouting behind us.

The Leopard-man went bursting his way through the long canes, which sprang back as he passed, and rattled in M’ling’s face. We others in the rear found a trampled path for us when we reached the brake. The chase lay through the brake for perhaps a quarter of a mile, and then plunged into a dense thicket, which retarded our movements exceedingly, though we went through it in a crowd together,—fronds flicking into our faces, ropy creepers catching us under the chin or gripping our ankles, thorny plants hooking into and tearing cloth and flesh together.



"He has gone on all-fours through this," panted Moreau, now just ahead of me.

"None escape," said the Wolf-bear, laughing into my face with the exultation of hunting.

We burst out again among rocks, and saw the quarry ahead running lightly on all-fours and snarling at us over his shoulder. At that the Wolf Folk howled with delight. The Thing was still clothed, and at a distance its face still seemed human; but the carriage of its four limbs was feline, and the furtive droop of its shoulder was distinctly that of a hunted animal. It leapt over some thorny yellow-flowering bushes, and was hidden. M'ling was half-way across the space.

Most of us now had lost the first speed of the chase, and had fallen into a longer and steadier stride. I saw as we traversed the open that the pursuit was now spreading from a column into a line. The Hyena-swine still ran close to me, watching me as it ran, every now and then puckering its muzzle with a snarling laugh. At the edge of the rocks the Leopard-man, realising that he was making for the projecting cape upon which he had stalked me on the night of my arrival, had doubled in the undergrowth; but Montgomery had seen the manoeuvre, and turned him again. So, panting, tumbling against rocks, torn by brambles, impeded by ferns and reeds, I helped to pursue the Leopard-man who had broken the Law, and the Hyena-swine ran, laughing savagely, by my side. I staggered on, my head reeling and my heart beating against my ribs, tired almost to death, and yet not daring to lose sight of the chase lest I should be left alone with this horrible companion. I staggered on in spite of infinite fatigue and the dense heat of the tropical afternoon.

At last the fury of the hunt slackened. We had pinned the wretched brute into a corner of the island. Moreau, whip in hand, marshalled us all into an irregular line, and we advanced now slowly, shouting to one another as we advanced and tightening the cordon about our victim. He lurked noiseless and invisible in the bushes through which I had run from him during that midnight pursuit. "Steady!" cried Moreau, "steady!" as the ends of the line crept round the tangle of undergrowth and hemmed the brute in.

"Ware a rush!" came the voice of Montgomery from beyond the thicket.

I was on the slope above the bushes; Montgomery and Moreau beat along the beach beneath. Slowly we pushed in among the fretted network of branches and leaves. The quarry was silent.

"Back to the House of Pain, the House of Pain, the House of Pain!" yelled the voice of the Ape-man, some twenty yards to the right.

When I heard that, I forgave the poor wretch all the fear he had inspired in me. I heard the twigs snap and the boughs swish aside before the heavy tread of the Horse-rhinoceros upon my right. Then suddenly through a polygon of green, in the half darkness under the luxuriant growth, I saw the creature we were hunting. I halted. He was crouched together into the smallest possible compass, his luminous green eyes turned over his shoulder regarding me.

It may seem a strange contradiction in me,—I

cannot explain the fact,—but now, seeing the creature there in a perfectly animal attitude, with the light gleaming in its eyes and its imperfectly human face distorted with terror, I realised again the fact of its humanity. In another moment other of its pursuers would see it, and it would be overpowered and captured, to experience once more the horrible tortures of the enclosure. Abruptly I slipped out my revolver, aimed between its terror-struck eyes, and fired. As I did so, the Hyena-swine saw the Thing, and flung itself upon it with an eager cry, thrusting thirsty teeth into its neck. All about me the green masses of the thicket were swaying and cracking as the Beast People came rushing together. One face and then another appeared.

"Don't kill it, Prendick!" cried Moreau. "Don't kill it!" and I saw him stooping as he pushed through under the fronds of the big ferns.

In another moment he had beaten off the Hyena-swine with the handle of his whip, and he and Montgomery were keeping away the excited carnivorous Beast People, and particularly M'ling, from the still quivering body. The hairy-grey Thing came sniffing at the corpse under my arms. The other animals, in their animal ardour, jostled me to get a nearer view.

"Confound you, Prendick!" said Moreau. "I wanted him."

"I'm sorry," said I, though I was not. "It was the impulse of the moment." I felt sick with exertion and excitement. Turning, I pushed my way out of the crowding Beast People and went on alone up the slope towards the higher part of the headland. Under the shouted directions of Moreau I heard the three white-swathed Bull-men begin dragging the victim down towards the water.

It was easy now for me to be alone. The Beast People manifested a quite human curiosity about the dead body, and followed it in a thick knot, sniffing and growling at it as the Bull-men dragged it down the beach. I went to the headland and watched the Bull-men, black against the evening sky, as they carried the weighted dead body out to sea; and like a wave across my mind came the realisation of the unspeakable aimlessness of things upon the island. Upon the beach among the rocks beneath me were the Ape-man, the Hyena-swine, and several other of the Beast People, standing about Montgomery and Moreau. They were all still intensely excited, and all overflowing with noisy expressions of their loyalty to the Law; yet I felt an absolute assurance in my own mind that the Hyena-swine was implicated in the rabbit-killing. A strange persuasion came upon me, that, save for the grossness of the line, the grotesqueness of the forms, I had here before me the whole balance of human life in miniature, the whole interplay of instinct, reason, and fate in its simplest form. The Leopard-man had happened to go under; that was all the difference. Poor brute!

Poor brutes! I began to see the viler aspect of Moreau's cruelty. I had not thought before of the pain and trouble that came to these poor victims after they had passed from Moreau's hands. I had shivered only at the days of actual torment in the enclosure. But now that seemed to me the lesser part. Before, they had been beasts, their instincts

fitly adapted to their surroundings, and happy as living things may be. Now they stumbled in the shackles of humanity, lived in a fear that never died, fretted by a law they could not understand; their mock-human existence, begun in an agony, was one long internal struggle, one long dread of Moreau—and for what? It was the wantonness of it that stirred me.

Had Moreau had any intelligible object, I could have sympathized at least a little with him. I am not so squeamish about pain as that. I could have forgiven him a little even, had his motive been only hate. But he was so irresponsible, so utterly careless! His curiosity, his mad, aimless investigations, drove him on; and the Things were thrown out to live a year or so, to struggle and blunder and suffer, and at last to die painfully. They were wretched in themselves; the old animal hate moved them to trouble one another; the Law held them back from a brief hot struggle and a decisive end to their natural animosities.

In those days my fear of the Beast People went the way of my personal fear for Moreau. I fell indeed into a morbid state, deep and enduring, and alien to fear, which has left permanent scars upon my mind. I must confess that I lost faith in the sanity of the world when I saw it suffering the painful disorder of this island. A blind Fate, a vast pitiless Mechanism, seemed to cut and shape the fabric of existence; and I, Moreau (by his passion for research), Montgomery (by his passion for drink), the Beast People with their instincts and mental restrictions, were torn and crushed, ruthlessly, inevitably, amid the infinite complexity of its incessant wheels. But this condition did not come all at once: I think indeed that I anticipate a little in speaking of it now.

## CHAPTER XVII

### A Catastrophe

SCARCELY six weeks passed before I had lost every feeling but dislike and abhorrence for this infamous experiment of Moreau's. My one idea was to get away from these horrible caricatures of my Maker's image, back to the sweet and wholesome intercourse of men. My fellow-creatures, from whom I was thus separated, began to assume idyllic virtue and beauty in my memory. My first friendship with Montgomery did not increase. His long separation from humanity, his secret vice of drunkenness, his evident sympathy with the Beast People, tainted him to me. Several times I let him go alone among them. I avoided intercourse with them in every possible way. I spent an increasing proportion of my time upon the beach, looking for some liberating sail that never appeared,—until one day there fell upon us an appalling disaster, which put an altogether different aspect upon my strange surroundings.

It was about seven or eight weeks after my landing,—rather more, I think, though I had not troubled to keep account of the time,—when this catastrophe occurred. It happened in the early morning—I should think about six. I had risen and breakfasted early, having been aroused by the noise

of three Beast Men carrying wood into the enclosure.

After breakfast I went to the open gateway of the enclosure, and stood there smoking a cigarette and enjoying the freshness of the early morning. Moreau presently came round the corner of the enclosure and greeted me. He passed by me, and I heard him behind me unlock and enter his laboratory. So indurated was I at that time to the abomination of the place, that I heard without a touch of emotion the puma victim begin another day of torture. It met its persecutor with a shriek, almost exactly like that of an angry virago.

Then suddenly something happened,—I do not know what, to this day. I heard a short, sharp cry behind me, a fall, and turning saw an awful face rushing upon me,—not human, not animal, but hellish, brown, seamed with red branching scars, red drops starting out upon it, and the lidless eyes ablaze. I threw up my arm to defend myself from the blow that flung me headlong with a broken forearm; and the great monster, swathed in lint and with red-stained bandages fluttering about it, leapt over me and passed. I rolled over and over down the beach, tried to sit up, and collapsed upon my broken arm. Then Moreau appeared, his massive white face all the more terrible for the blood that trickled from his forehead. He carried a revolver in one hand. He scarcely glanced at me, but rushed off at once in pursuit of the puma.

I tried the other arm and sat up. The muffled figure in front ran in great striding leaps along the beach, and Moreau followed her. She turned her head and saw him, then doubling abruptly made for the bushes. She gained upon him at every stride. I saw her plunge into them, and Moreau, running slantingly to intercept her, fired and missed as she disappeared. Then he too vanished in the green confusion.

I stared after them, and then the pain in my arm flamed up, and with a groan I staggered to my feet. Montgomery appeared in the doorway, dressed, and with his revolver in his hand.

"Great God, Prendick!" he said, not noticing that I was hurt, "that brute's loose! Tore the fetter out of the wall! Have you seen him?" Then sharply, seeing I gripped my arm, "What's the matter?"

"I was standing in the doorway," said I.

He came forward and took my arm. "Blood on the sleeve," said he, and rolled back the flannel. He pocketed his weapon, felt my arm about painfully, and led me inside. "Your arm is broken," he said, and then, "Tell me exactly how it happened—what happened?"

I told him what I had seen; told him in broken sentences, with gasps of pain between them, and very dexterously and swiftly he bound my arm meanwhile. He slung it from my shoulder, stood back and looked at me.

"You'll do," he said. "And now?"

He thought. Then he went out and locked the gates of the enclosure. He was absent some time.

I was chiefly concerned about my arm. The incident seemed merely one more of many horrible things. I sat down in the deck chair, and I must admit swore heartily at the island. The first dull feeling of injury in my arm had already given way

to a burning pain when Montgomery reappeared. His face was rather pale, and he showed more of his lower gums than ever.

"I can neither see nor hear anything of him," he said. "I've been thinking he may want my help." He stared at me with his expressionless eyes. "That was a strong brute," he said. "It simply wrenched its fetter out of the wall." He went to the window, then to the door, and there turned to me. "I shall go after him," he said. "There's another revolver I can leave with you. To tell you the truth, I feel anxious somehow."

He obtained the weapon, and put it ready to my hand on the table; then went out, leaving a restless contagion in the air. I did not sit long after he left, but took the revolver in hand and went to the doorway.

The morning was as still as death. Not a whisper of wind was stirring; the sea was like polished glass, the sky empty, the beach desolate. In my half-excited, half-feverish state, this stillness of things oppressed me. I tried to whistle, and the tune died away. I swore again,—the second time that morning. Then I went to the corner of the enclosure and stared inland at the green bush that had swallowed up Moreau and Montgomery. When would they return, and how? Then far away up the beach a little grey Beast Man appeared, ran down to the water's edge and began splashing about. I strolled back to the doorway, then to the corner again, and so began pacing to and fro like a sentinel upon duty. Once I was arrested by the distant voice of Montgomery bawling, "Coo-ee—Mor-eau!" My arm became less painful, but very hot. I got feverish and thirsty. My shadow grew shorter. I watched the distant figure until it went away again. Would Moreau and Montgomery never return? Three sea-birds began fighting for some stranded treasure.

Then from far away behind the enclosure I heard a pistol-shot. A long silence, and then came another. Then a yelling cry nearer, and another dismal gap of silence. My unfortunate imagination set to work to torment me. Then suddenly a shot close by. I went to the corner, startled, and saw Montgomery,—his face scarlet, his hair disordered, and the knee of his trousers torn. His face expressed profound consternation. Behind him slouched the Beast Man, M'ling, and round M'ling's jaws were some queer dark stains.

"Has he come?" said Montgomery.

"Moreau?" said I. "No."

"My God!" The man was panting, almost sobbing. "Go back in," he said, taking my arm. "They're mad. They're all rushing about mad. What can have happened? I don't know. I'll tell you, when my breath comes. Where's some brandy?"

Montgomery limped before me into the room and sat down in the deck chair. M'ling flung himself down just outside the doorway and began panting like a dog. I got Montgomery some brandy-and-water. He sat staring in front of him at nothing, recovering his breath. After some minutes he began to tell me what had happened.

He had followed their track for some way. It was plain enough at first on account of the crushed and broken bushes, white rags torn from the puma's

bandages, and occasional smears of blood on the leaves of the shrubs and undergrowth. He lost the track, however, on the stony ground beyond the stream where I had seen the Beast Man drinking, and went wandering aimlessly westward shouting Moreau's name. Then M'ling had come to him carrying a light hatchet. M'ling had seen nothing of the puma affair; had been felling wood, and heard him calling. They went on shouting together. Two Beast Men came crouching and peering at them through the undergrowth, with gestures and a furtive carriage that alarmed Montgomery by their strangeness. He hailed them, and they fled guiltily. He stopped shouting after that and after wandering some time farther in an undecided way, determined to visit the huts.

He found the ravine deserted.

Growing more alarmed every minute, he began to retrace his steps. Then it was he encountered the two Swine-men I had seen dancing on the night of my arrival; bloodstained they were about the mouth, and intensely excited. They came crashing through the ferns, and stopped with fierce faces when they saw him. He cracked his whip in some trepidation, and forthwith they rushed at him. Never before had a Beast Man dared to do that. One he shot through the head; M'ling flung himself upon the other, and the two rolled grappling. M'ling got his brute under and with his teeth in its throat, and Montgomery shot that too as it struggled in M'ling's grip. He had some difficulty in inducing M'ling to come on with him. Thence they had hurried back to me. On the way, M'ling had suddenly rushed into a thicket and driven out an undersized Jackal-man, also blood-stained, and lame through a wound in the foot. This brute had run a little way and then turned savagely at bay, and Montgomery—with a certain wantonness, I thought—had shot him.

"What does it all mean?" said I.

He shook his head, and turned once more to the brandy.

## CHAPTER XVIII

### The Finding of Moreau

WHEN I saw Montgomery swallow a third dose of brandy, I took it upon myself to interfere. He was already more than half fuddled. I told him that some serious thing must have happened to Moreau by this time, or he would have returned before this, and that it behoved us to ascertain what that catastrophe was. Montgomery raised some feeble objections, and at last agreed. We had some food, and then all three of us started.

It is possibly due to the tension of my mind at the time, but even now that start into the hot stillness of the tropical afternoon is a singularly vivid impression. M'ling went first, his shoulder hunched, his strange black head moving with quick starts as he peered first on this side of the way and then on that. He was unarmed; his axe he had dropped when he encountered the Swine-man. Teeth were his weapons, when it came to fighting. Montgomery followed with stumbling footsteps, his hands in his pockets, his face downcast; he was in a state of muddled sullenness with me on account of the

brandy. My left arm was in a sling (it was lucky it was my left), and I carried my revolver in my right. Soon we traced a narrow path through the wild luxuriance of the island, going northwestward; and presently M'ling stopped, and became rigid with watchfulness. Montgomery almost staggered into him, and then stopped too. Then, listening intently, we heard coming through the trees the sound of voices and footsteps approaching us.

"He is dead," said a deep, vibrating voice.

"He is not dead; he is not dead," jabbered another.

"We saw, we saw," said several voices.

"Hul-lo" suddenly shouted Montgomery, "Hul-lo, there!"

"Confound you!" said I, and gripped my pistol.

There was a silence, then a crashing among the interlacing vegetation, first here, then there, and then half-a-dozen faces appeared,—strange faces, lit by a strange light. M'ling made a growling noise in his throat. I recognised the Ape-man: I had indeed already identified his voice, and two of the white-swathed brown-featured creatures I had seen in Montgomery's boat. With these were the two dappled brutes and that grey, horribly crooked creature who said the Law, with grey hair streaming down its cheeks, heavy grey eyebrows, and grey locks pouring off from a central parting upon its sloping forehead,—a heavy, faceless thing, with strange red eyes, looking at us curiously from amidst the green.

For a space no one spoke. Then Montgomery hiccupped, "Who—said he was dead?"

The Monkey-man looked guiltily at the hair-grey Thing. "He is dead," said this monster. "They saw."

There was nothing threatening about this detachment, at any rate. They seemed awe-stricken and puzzled.

"Where is he?" said Montgomery.

"Beyond," and the grey creature pointed.

"Is there a Law now?" asked the Monkey-man.

"Is it still to be this and that? Is he dead indeed?"

"Is there a Law?" repeated the man in white.

"Is there a Law, thou Other with the Whip?"

"He is dead," said the hairy-grey Thing.

And they all stood watching us.

"Prendick," said Montgomery, turning his dull eyes to me. "He's dead, evidently."

I had been standing behind him during this colloquy. I began to see how things lay with them. I suddenly stepped in front of Montgomery and lifted up my voice:—

"Children of the Law," I said, "he is *not* dead!" M'ling turned his sharp eyes on me. "He has changed his shape; he has changed his body," I went on. "For a time you will not see him. He is—there," I pointed upward, "where he can watch you. You cannot see him, but he can see you. Fear the Law!"

I looked at them squarely. They flinched.

"He is great, he is good," said the Ape-man, peering fearfully upward among the dense trees.

"And the other Thing?" I demanded.

"The Thing that bled, and ran screaming and sobbing,—that is dead too," said the grey Thing, still regarding me.

"That's well," grunted Montgomery.

"The Other with the Whip—" began the grey Thing.

"Well?" said I.

"Said he was dead."

But Montgomery was still sober enough to understand my motive in denying Moreau's death. "He is not dead," he said slowly, "not dead at all. No, more dead than I am."

"Some," said I, "have broken the Law: they will die. Some have died. Show us now where his old body lies,—the body he cast away because he had no more need of it."

"It is this way, Man who walked in the Sea," said the grey Thing.

And with these six creatures guiding us, we went through the tumult of ferns and creepers and tree-stems towards the northwest. Then came a yelling, a crashing among the branches, and a little pink homunculus rushed by us shrieking. Immediately after appeared a feral monster in headlong pursuit, blood-bedabbled, who was amongst us almost before he could stop his career. The grey Thing leapt aside. M'ling, with a snarl, flew at it, and was struck aside. Montgomery fired and missed, bowed his head, threw up his arm, and turned to run. I fired, and the Thing still came on; fired again, point-blank, into its ugly face. I saw its features vanish in a flash: its face was driven in. Yet it passed me, gripped Montgomery, and holding him, fell headlong beside him and pulled him sprawling upon itself in its death-agony.

I found myself alone with M'ling, the dead brute, and the prostrate man. Montgomery raised himself slowly and stared in a muddled way at the shattered Beast Man beside him. It more than half sobered him. He scrambled to his feet. Then I saw the grey Thing returning cautiously through the trees.

"See," said I, pointing to the dead brute, "is the Law not alive? This came of breaking the Law."

He peered at the body. "He sends the Fire that kills," said he, in his deep voice, repeating part of the Ritual. The others gathered round and stared for a space.

At last we drew near the westward extremity of the island. We came upon the gnawed and mutilated body of the puma, its shoulder-bone smashed by a bullet, and perhaps twenty yards farther found at last what we sought. Moreau lay face downward in a trampled space in a canebrake. One hand was almost severed at the wrist, and his silvery hair was dabbled in blood. His head had been battered in by the fetters of the puma. The broken canes beneath him were smeared with blood. His revolver we could not find. Montgomery turned him over.

Resting at intervals, and with the help of the seven Beast People (for he was a heavy man), we carried Moreau back to the enclosure. The night was darkling. Twice we heard unseen creatures howling and shrieking past our little band, and once the little pink sloth-creature appeared and stared at us, and vanished again. But we were not attacked again. At the gates of the enclosure our company of Beast People left us, M'ling going with the rest. We locked ourself in, and then took Moreau's mangled body into the yard and laid it upon a pile of brushwood. Then we went into the

laboratory and put an end to all we found living there.

## CHAPTER XIX

## Montgomery's "Bank Holiday"

WHEN this was accomplished, and we had washed and eaten, Montgomery and I went into my little room and seriously discussed our position for the first time. It was then near midnight. He was almost sober, but greatly disturbed in his mind. He had been strangely under the influence of Moreau's personality: I do not think it had ever occurred to him that Moreau could die. This disaster was the sudden collapse of the habits that had become part of his nature in the ten or more monotonous years he had spent on the island. He talked vaguely, answered my questions crookedly, wandered into general questions.

"This silly ass of a world," he said; "what a muddle it all is! I haven't had any life. I wonder when it's going to begin. Sixteen years being bullied by nurses and schoolmasters at their own sweet will; five in London grinding hard at medicine, bad food, shabby lodgings, shabby clothes, shabby vice, a blunder,—I didn't know any better,—and hustled off to this beastly island. Ten years here! What's it all for, Prendick? Are we bubbles blown by a baby?"

It was hard to deal with such ravings. "The thing we have to think of now," said I, "is how to get away from this island."

"What's the good of getting away? I'm an out-cast. Where am I to join on? It's all very well for you, Prendick. Poor old Moreau! We can't leave him here to have his bones picked. As it is—And besides, what will become of the decent part of the Beast Folk?"

"Well," said I, "that will do to-morrow. I've been thinking we might make that brush-wood into a pyre and burn his body—and those other things. Then what will happen with the Beast Folk?"

"I don't know. I suppose those that were made of beasts of prey will make silly asses of themselves sooner or later. We can't massacre the lot—can we? I suppose that's what your humanity would suggest? But they'll change. They are sure to change."

He talked thus inconclusively until at last I felt my temper going.

"Damnation!" he exclaimed at some petulance of mine; "can't you see I'm in a worse hole than you are?" And he got up, and went for the brandy. "Drink!" he said returning, "you logic-chopping, chalky-faced saint of an atheist, drink!"

"Not I," said I, and sat grimly watching his face under the yellow paraffin flare, as he drank himself into a garrulous misery.

I have a memory of infinite tedium. He wandered into a maudlin defence of the Beast People and of M'ling. M'ling, he said, was the only thing that had ever really cared for him. And suddenly an idea came to him.

"I'm damned!" said he, staggering to his feet and clutching the brandy bottle.

By some flash of intuition I knew what it was he intended. "You don't give drink to that beast!" I

said, rising and facing him.

"Beast!" said he. "You're the beast. He takes his liquor like a Christian. Come out of the way, Prendick!"

"For God's sake," said I.

"Get—out of the way!" he roared, and suddenly whipped out his revolver.

"Very well," said I, and stood aside, half-minded to fall upon him as he put his hand upon the latch, but deterred by the thought of my useless arm. "You've made a beast of yourself,—to the beasts you may go."

He flung the doorway open, and stood half facing me between the yellow lamp-light and the pallid glare of the moon; his eye-sockets were blotches of black under his stubbly eye-brows.

"You're a solemn prig, Prendick, a silly ass! You're always fearing and fancying. We're on the edge of things. I'm bound to cut my throat to-morrow. I'm going to have a damned Bank Holiday to-night." He turned and went out into the moonlight. "M'ling!" he cried; "M'ling, old friend!"

Three dim creatures in the silvery light came along the edge of the wan beach,—one a white-wrapped creature, the other two blotches of blackness following it. They halted, staring. Then I saw M'ling's hunched shoulders as he came round the corner of the house.

"Drink!" cried Montgomery, "drink, you brutes! Drink and be men! Damme, I'm the cleverest. Moreau forgot this; this is the last touch. Drink, I tell you!" And waving the bottle in his hand he started off at a kind of quick trot to the westward, M'ling ranging himself between him and the three dim creatures who followed.

I went to the doorway. They were already indistinct in the mist of the moonlight before Montgomery halted. I saw him administer a dose of the raw brandy to M'ling, and saw the five figures melt into one vague patch.

"Sing!" I heard Montgomery shout,—"*sing all together, 'Confound old Prendick!' That's right; now again, 'Confound old Prendick!'*"

The black group broke up into five separate figures, and wound slowly away from me along the band of shining beach. Each went howling at his own sweet will, yelping insults at me, or giving whatever other vent this new inspiration of brandy demanded. Presently I heard Montgomery's voice shouting, "Right turn!" and they passed with their shouts and howls into the blackness of the landward trees. Slowly, very slowly, they receded into silence.

The peaceful splendour of the night healed again. The moon was now past the meridian and travelling down the west. It was at its full, and very bright riding through the empty dark sky. The shadow of the wall lay, a yard wide and of inky blackness, at my feet. The eastward sea was a featureless grey, dark and mysterious; and between the sea and the shadow the grey sands (of volcanic glass and crystals) flashed and shone like a beach of diamonds. Behind me the paraffin lamp flared hot and ruddy.

Then I shut the door, locked it, and went into the enclosure where Moreau lay beside his latest victims,—the staghounds and the llama and some other wretched brutes,—with his massive face calm

even after his terrible death, and with the hard eyes open, staring at the dead white moon above. I sat down upon the edge of the sink, and with my eyes upon that ghastly pile of silvery light and ominous shadows began to turn over my plans. In the morning I would gather some provisions in the dingey, and after setting fire to the pyre before me, push out into the desolation of the high sea once more. I felt that for Montgomery there was no help; that he was, in truth, half akin to these Beast Folk, unfitted for human kindred.

I do not know how long I sat there scheming. It must have been an hour or so. Then my planning was interrupted by the return of Montgomery to my neighbourhood. I heard a yelling from many throats, a tumult of exultant cries passing down towards the beach, whooping and howling, and excited shrieks that seemed to come to a stop near the water's edge. The riot rose and fell; I heard heavy blows and the splintering smash of wood, but it did not trouble me then. A discordant chanting began.

My thoughts went back to my means of escape. I got up, brought the lamp, and went into a shed to look at some kegs I had seen there. Then I became interested in the contents of some biscuit-tins, and opened one. I saw something out of the tail of my eye,—a red figure,—and turned sharply.

Behind me lay the yard, vividly black-and-white in the moonlight, and the pile of wood and faggots on which Moreau and his mutilated victims lay, one over another. They seemed to be gripping one another in one last revengeful grapple. His wounds gaped, black as night, and the blood that had dripped lay in black patches upon the sand. Then I saw, without understanding, the cause of my phantom,—a ruddy glow that came and danced and went upon the wall opposite. I misinterpreted this, fancied it was a reflection of my flickering lamp, and turned again to the stores in the shed. I went on rummaging among them, as well as a one-armed man could, finding this convenient thing and that, and putting them aside for to-morrow's launch. My movements were slow, and the time passed quickly. Inevitably the daylight crept upon me.

The chanting died down, giving place to a clamour; then it began again, and suddenly broke into a tumult. I heard cries of "More! more!" a sound like quarrelling, and a sudden wild shriek. The quality of the sounds changed so greatly that it arrested my attention. I went out into the yard and listened. Then cutting like a knife across the confusion came the crack of a revolver.

I rushed at once through my room to the little doorway. As I did so I heard some of the packing-cases behind me go sliding down and smash together with a clatter of glass on the floor of the shed. But I did not heed these. I flung the door open and looked out.

Up the beach by the boathouse a bonfire was burning, raining up sparks into the indistinctness of the dawn. Around this struggled a mass of black figures. I heard Montgomery call my name. I began to run at once towards this fire, revolver in hand. I saw the pink tongue of Montgomery's pistol lick out once, close to the ground. He was down. I shouted with all my strength and fired

into the air. I heard some one cry, "The Master!" The knotted black struggle broke into scattering units, the fire leapt and sank down. The crowd of Beast People fled in sudden panic before me, up the beach. In my excitement I fired at their retreating backs as they disappeared among the bushes. Then I turned to the black heaps upon the ground.

Montgomery lay on his back, with the hairy-grey Beast-man sprawling across his body. The brute was dead, but still gripping Montgomery's throat with its curving claws. Near by lay M'ling on his face and quite still, his neck bitten open and the upper part of the smashed brandy-bottle in his hand. Two other figures lay near the fire,—the one motionless, the other groaning fitfully, every now and then raising its head slowly, then dropping it again.

I caught hold of the grey man and pulled him off Montgomery's body; his claws drew down the torn coat reluctantly as I dragged him away. Montgomery was dark in the face and scarcely breathing. I splashed sea-water on his face and pillowed his head on my rolled-up coat. M'ling was dead. The wounded creature by the fire—it was a Wolf-brute with a bearded grey face—lay, I found, with the fore part of its body upon the still glowing timber. The wretched thing was injured so dreadfully that in mercy I blew its brains out at once. The other brute was one of the Bull-men swathed in white. He too was dead. The rest of the Beast People had vanished from the beach.

I went to Montgomery again and knelt beside him, cursing my ignorance of medicine. The fire beside me had sunk down, and only charred beams of timber glowing at the central ends and mixed with a grey ash of brushwood remained. I wondered casually where Montgomery had got his wood. Then I saw that the dawn was upon us. The sky had grown brighter, the setting moon was becoming pale and opaque in the luminous blue of the day. The sky to the eastward was rimmed with red.

Suddenly I heard a thud and a hissing behind me, and, looking round, sprang to my feet with a cry of horror. Against the warm dawn great tumultuous masses of black smoke were boiling up out of the enclosure, and through their stormy darkness shot flickering threads of blood-red flame. Then the thatched roof caught. I saw the curving charge of the flames across the sloping straw. A spurt of fire jetted from the window of my room.

I knew at once what had happened. I remembered the crash I had heard. When I had rushed out to Montgomery's assistance, I had overturned the lamp.

The hopelessness of saving any of the contents of the enclosure stared me in the face. My mind came back to my plan of flight, and turning swiftly I looked to see where the two boats lay upon the beach. They were gone! Two axes lay upon the sands beside me; chips and splinters were scattered broadcast, and the ashes of the bonfire were blackening and smoking under the dawn. Montgomery had burnt the boats to revenge himself upon me and prevent our return to mankind!

A sudden convulsion of rage shook me. I was almost moved to batter his foolish head in, as he

lay there at my feet. Then suddenly his hand moved, so feebly, so pitifully, that my wrath vanished. He groaned, and opened his eyes for a minute. I knelt down beside him and raised his head. He opened his eyes again, staring silently at the dawn, and then they met mine. The lids fell.

"Sorry," he said presently, with an effort. He seemed trying to think. "The last," he murmured, "the last of this silly universe. What a mess—"

I listened. His head fell helplessly to one side. I thought some drink might revive him; but there was neither drink nor vessel in which to bring drink at hand. He seemed suddenly heavier. My heart went cold. I bent down to his face, put my hand through the rent in his blouse. He was dead; and even as he died a line of white heat, the limb of the sun, rose eastward beyond the projection of the bay, splashing its radiance across the sky and turning the dark sea into a weltering tumult of dazzling light. It fell like a glory upon his death-stricken face.

I let his head fall gently upon the rough pillow I had made for him, and stood up. Before me was the glittering desolation of the sea, the awful solitude from which I had already suffered so much; behind me the island, hushed under the dawn, its Beast People silent and unseen. The enclosure, with all its provisions and ammunition, burnt noisily, with sudden gusts of flame, a fitful crackling, and now and then a crash. The heavy smoke drove up the beach away from me, rolling low over the distant tree-tops towards the huts in the ravine. Beside me were the charred vestiges of the boats and these four dead bodies.

Then out of the bushes came three Beast People, with hunched shoulders, protruding heads, misshapen hands awkwardly held, and inquisitive, unfriendly eyes, and advanced towards me with hesitating gestures.

## CHAPTER XX

### Alone with the Beast Folk

I FACED these people, facing my fate in them, single-handed now,—literally single-handed, for I had a broken arm. In my pocket was a revolver with two empty chambers. Among the chips scattered about the beach lay the two axes that had been used to chop up the boats. The tide was creeping in behind me. There was nothing for it but courage. I looked squarely into the faces of the advancing monsters. They avoided my eyes, and their quivering nostrils investigated the bodies that lay beyond me on the beach. I took half-a-dozen steps, picked up the blood-stained whip that lay beneath the body of the Wolf-man, and cracked it. They stopped and stared at me.

"Salute!" said I. "Bow down!"

They hesitated. One bent his knees. I repeated my command, with my heart in my mouth, and advanced upon them. One knelt, then the other two.

I turned and walked towards the dead bodies, keeping my face towards the three kneeling Beast Men, very much as an actor passing up the stage faces the audience.

"They broke the Law," said I, putting my foot

on the Sayer of the Law. "They have been slain,—even the Sayer of the Law; even the Other with the Whip. Great is the Law! Come and see."

"None escape," said one of them, advancing and peering.

"None escape," said I. "Therefore hear and do as I command." They stood up, locking questioningly at one another.

"Stand there," said I.

I picked up the hatchets and swung them by their heads from the sling of my arm; turned Montgomery over; picked up his revolver still loaded in two chambers, and bending down to rummage, found half-dozen cartridges in his pocket.

"Take him," said I, standing up again and pointing with the whip; "take him, and carry him out and cast him into the sea."

They came forward, evidently still afraid of Montgomery, but still more afraid of my cracking red whip-lash; and after some fumbling and hesitation, some whip-cracking and shouting, they lifted him gingerly, carried him down to the beach, and were splashing into the dazzling welter of the sea.

"On!" said I, "on; Carry him far."

They went in up to their armpits and stood regarding me.

"Let go," said I; and the body of Montgomery vanished with a splash. Something seemed to tighten across my chest.

"Good!" said I, with a break in my voice; and they came back, hurrying and fearful, to the margin of the water, leaving long wakes of black in the silver. At the water's edge they stopped, turning and glaring into the sea as though they presently expected Montgomery to arise therefrom and exact vengeance.

"Now these," said I, pointing to the other bodies.

They took care not to approach the place where they had thrown Montgomery into the water, but instead, carried the four dead Beast People slantingly along the beach for perhaps a hundred yards before they waded out and cast them away.

As I watched them disposing of the mangled remains of M'ling, I heard a light footfall behind me, and turning quickly saw the big Hyena-swine perhaps a dozen yards away. His head was bent down, his bright eyes were fixed upon me, his stumpy hands clenched and held close by his side. He stopped in his crouching attitude when I turned, his eyes a little averted.

For a moment we stood eye to eye. I dropped the whip and snatched at the pistol in my pocket; for I meant to kill this brute, the most formidable of any left now upon the island, at the first excuse. It may seem treacherous, but so I was resolved. I was far more afraid of him than of any other two of the Beast Folk. His continued life was I knew a threat against mine.

I was perhaps a dozen seconds collecting myself. Then cried I, "Salute! Bow down!"

His teeth flashed upon me in a snarl. "Who are you that I should—"

Perhaps a little too spasmodically I drew my revolver, aimed quickly and fired. I heard him yelp, saw him run sideways and turn, knew I had missed, and clicked back the cock with my thumb for the next shot. But he was already running

headlong, jumping from side to side, and I dared not risk another miss. Every now and then he looked back at me over his shoulder. He went slanting along the beach, and vanished beneath the driving masses of dense smoke that were still pouring out from the burning enclosure. For some time I stood staring after him. I turned to my three obedient Beast Folk again and signalled them to drop the body they still carried. Then I went back to the place by the fire where the bodies had fallen, and kicked the sand until all the brown blood-stains were absorbed and hidden.

I dismissed my three serfs with a wave of the hand, and went up the beach into the thickets. I carried my pistol in my hand, my whip thrust with the hatchets in the sling of my arm. I was anxious to be alone, to think out the position in which I was now placed. A dreadful thing that I was only beginning to realise was, that over all this island there was now no safe place where I could be alone and secure to rest or sleep. I had recovered strength amazingly since my landing, but I was still inclined to be nervous and to break down under any great stress. I felt that I ought to cross the island and establish myself with the Beast People, and make myself secure in their confidence. But my heart failed me. I went back to the beach, and turning eastward past the burning enclosure, made for a point where a shallow spit of coral sand ran out towards the reef. Here I could sit down and think, my back to the sea and my face against any surprise. And there I sat, chin on knees, the sun beating down upon my head and unspeakable dread in my mind, plotting how I could live on against the hour of my rescue (if ever rescue came). I tried to review the whole situation as calmly as I could, but it was difficult to clear the thing of emotion.

I began turning over in my mind the reason of Montgomery's despair. "They will change," he said; "they are sure to change." And Moreau, what was it that Moreau had said? "The stubborn beast-flesh grows day by day back again." Then I came round to the Hyena-swine. I felt sure that if I did not kill that brute, he would kill me. The Sayer of the Law was dead: worse luck. They knew now that we of the Whips could be killed even as they themselves were killed. Were they peering at me already out of the green masses of ferns and palms over yonder, watching until I came within their spring? Were they plotting against me? What was the Hyena-swine telling them? My imagination was running away with me into a morass of unsubstantial fears.

My thoughts were disturbed by a crying of seabirds hurrying towards some black object that had been stranded by the waves on the beach near the enclosure. I knew what that object was, but I had not the heart to go back and drive them off. I began walking along the beach in the opposite direction, designing to come round the eastward corner of the island and so approach the ravine of the huts, without traversing the possible ambushes of the thickets.

Perhaps half a mile along the beach I became aware of one of my three Beast Folk advancing out of the landward bushes towards me. I was now so nervous with my own imaginings that I

immediately drew my revolver. Even the propitiatory gestures of the creature failed to disarm me. He hesitated as he approached.

"Go away!" cried I.

There was something very suggestive of a dog in the cringing attitude of the creature. It retreated a little way, very like a dog being sent home, and stopped, looking at me imploringly with canine brown eyes.

"Go away," said I. "Do not come near me."

"May I not come near you?" it said.

"No; go away," I insisted, and snapped my whip. Then putting my whip in my teeth, I stooped for a stone, and with that threat drove the creature away.

So in solitude I came round by the ravine of the Beast People, and hiding among the weeds and reeds that separated this crevice from the sea I watched such of them as appeared, trying to judge from their gestures and appearance how the death of Moreau and Montgomery and the destruction of the House of Pain had affected them. I know now the folly of my cowardice. Had I kept my courage up to the level of the dawn, had I not allowed it to ebb away in solitary thought, I might have grasped the vacant sceptre of Moreau and ruled over the Beast People. As it was I lost the opportunity, and sank to the position of a mere leader among my fellows.

Towards noon certain of them came and squatted basking in the hot sand. The imperious voices of hunger and thirst prevailed over my dread. I came out of the bushes, and, revolver in hand, walked down towards these seated figures. One, a Wolf-woman, turned her head and stared at me, and then the others. None attempted to rise or salute me. I felt too faint and weary to insist, and I let the moment pass.

"I want food," said I, almost apologetically, and drawing near.

"There is food in the huts," said an Ox-boardman, drowsily, and looking away from me.

I passed them, and went down into the shadow and odours of the almost deserted ravine. In an empty hut I feasted on some specked and half-decayed fruit; and then after I had propped some branches and sticks about the opening, and placed myself with my face towards it and my hand upon my revolver, the exhaustion of the last thirty hours claimed its own, and I fell into a light slumber, hoping that the flimsy barricade I had erected would cause sufficient noise in its removal to save me from surprise.

## CHAPTER XXI

### The Reversion of the Beast Folk

**I**N this way I became one among the Beast People in the Island of Doctor Moreau. When I awoke, it was dark about me. My arm ached in its bandages. I sat up, wondering at first where I might be. I heard coarse voices talking outside. Then I saw that my barricade had gone, and that the opening of the hut stood clear. My revolver was still in my hand.

I heard something breathing, saw something crouched together close beside me. I held my



breath, trying to see what it was. It began to move slowly, interminably. Then something soft and warm and moist passed across my hand. All my muscles contracted. I snatched my hand away. A cry of alarm began and was stifled in my throat. Then I just realised what had happened sufficiently to stay my fingers on the revolver.

"Who is that?" I said in a horse whisper, the revolver still pointed.

"I—Master."

"Who are you?"

"They say there is no Master now. But I know, I know. I carried the bodies into the sea, O Walker in the Sea! the bodies of those you slew. I am your slave, Master."

"Are you the one I met on the beach?" I asked.

"The same, Master."

The Thing was evidently faithful enough, for it might have fallen upon me as I slept. "It is well," I said, extending my hand for another licking kiss. I began to realise what its presence meant, and the tide of my courage flowed. "Where are the others?" I asked.

"They are mad; they are fools," said the Dog-man. "Even now they talk together beyond there. They say, 'The Master is dead. The Other with the Whip is dead. That Other who walked in the Sea is as we are. We have no Master, no Whips, no House of Pain, any more. There is an end. We love the Law, and will keep it; but there is no Pain, no Master, no Whips for ever again.' So they say. But I know, Master, I know."

I felt in the darkness, and patted the Dog-man's head. "It is well," I said again.

"Presently you will slay them all," said the Dog-man.

"Presently," I answered, "I will slay them all,—after certain days and certain things have come to pass. Every one of them save those you spare, every one of them shall be slain."

"What the Master wishes to kill, the Master kills," said the Dog-man with a certain satisfaction in his voice.

"And that their sins may grow," I said, "let them live in their folly until their time is ripe. Let them not know that I am the Master."

"The Master's will is sweet," said the Dog-man, with the ready tact of his canine blood.

"But one has sinned," said I. "Him I will kill, whenever I may meet him. When I say to you, 'That is he,' see that you fall upon him. And now I will go to the men and women who are assembled together."

For a moment the opening of the hut was blackened by the exit of the Dog-man. Then I followed and stood up, almost in the exact spot where I had been when I had heard Moreau and his stag-hound pursuing me. But now it was night, and all the miasmatic ravine about me was black; and beyond, instead of a green, sunlit slope, I saw a red fire, before which hunched, grotesque figures moved to and fro. Farther were the thick trees, a bank of darkness, fringed above with the black lace of the upper branches. The moon was just riding up on the edge of the ravine, and like a bar across its face drove the spire of vapour that

was for ever streaming from the fumaroles of the island.

"Walk by me," said I, nerving myself; and side by side we walked down the narrow way, taking little heed of the dim Things that peered at us out of the huts.

None about the fire attempted to salute me. Most of them disregarded me, ostentatiously. I looked round for the Hyena-swine, but he was not there. Altogether, perhaps twenty of the Beast Folk squatted, staring into the fire or talking to one another.

"He is dead, he is dead! the Master is dead!" said the voice of the Ape-man to the right of me. "The House of Pain—there is no House of Pain!"

"He is not dead," said I, in a loud voice. "Even now he watches us!"

This startled them. Twenty pairs of eyes regarded me.

"The House of Pain is gone," said I. "It will come again. The Master you cannot see; yet even now he listens among you."

"True, true!" said the Dog-man.

They were staggered at my assurance. An animal may be ferocious and cunning enough, but it takes a real man to tell a lie.

"The Man with the Bandaged Arm speaks a strange thing," said one of the Beast Folk.

"I tell you it is so," I said. "The Master and the House of Pain will come again. Woe be to him who breaks the Law!"

They looked curiously at one another. With an affectation of indifference I began to chop idly at the ground in front of me with my hatchet. They looked, I noticed, at the deep cuts I made in the turf.

Then the Satyr raised a doubt. I answered him. Then one of the dappled things objected, and an animated discussion sprang up round the fire. Every moment I began to feel more convinced of my present security. I talked now without the catching in my breath, due to the intensity of my excitement, that had troubled me at first. In the course of about an hour I had really convinced several of the Beast Folk of the truth of my assertions, and talked most of the others into a dubious state. I kept a sharp eye for my enemy the Hyena-swine, but he never appeared. Every now and then a suspicious movement would startle me, but my confidence grew rapidly. Then as the moon crept down from the zenith, one by one the listeners began to yawn (showing the oddest teeth in the light of the sinking fire), and first one and then another retired towards the dens in the ravine; and I, dreading the silence and darkness, went with them, knowing I was safer with several of them than with one alone.

In this manner began the longer part of my sojourn upon this Island of Doctor Moreau. But from that night until the end came, there was but one thing happened to tell save a series of innumerable small unpleasant details and the fretting of an incessant uneasiness. So that I prefer to make no chronicle for that gap of time, to tell only one cardinal incident of the ten months I spent as an intimate of these half-humanized brutes. There is much that sticks in my memory that I could write,—things that I would cheerfully give my right

hand to forget; but they do not help the telling of the story.

In the retrospect it is strange to remember how soon I fell in with these monsters' ways, and gained my confidence again. I had my quarrels with them of course, and could show some of their teeth-marks still; but they soon gained a wholesome respect for my trick of throwing stones and for the bite of my hatchet. And my Saint-Bernard-man's loyalty was of infinite service to me. I found their simple scale of honour was based mainly on the capacity for inflicting trenchant wounds. Indeed, I may say—without vanity, I hope—that I held something like pre-eminence among them. One or two, whom in a rare access of high spirits I had scarred rather badly, bore me a grudge; but it vented itself chiefly behind my back, and at a safe distance from my missiles, in grimaces.

The Hyena-swine avoided me, and I was always on the alert for him. My inseparable Dog-man hated and dreaded him intensely. I really believe that was at the root of the brute's attachment to me. It was soon evident to me that the former monster had tasted blood, and gone the way of the Leopard-man. He formed a lair somewhere in the forest, and became solitary. Once I tried to induce the Beast Folk to hunt him, but I lacked the authority to make them co-operate for one end. Again and again I tried to approach his den and come upon him unaware; but always he was too acute for me, and saw or winded me and got away. He too made every forest pathway dangerous to me and my ally with his lurking ambuscades. The Dog-man scarcely dared to leave my side.

In the first month or so the Beast Folk, compared with their latter condition, were human enough, and for one or two besides my canine friend I even conceived a friendly tolerance. The little pink sloth-creature displayed an odd affection for me, and took to following me about. The Monkey-man bored me, however; he assumed, on the strength of his five digits, that he was my equal, and was forever jabbering at me,—jabbering the most arrant nonsense. One thing about him entertained me a little: he had a fantastic trick of coining new words. He had an idea, I believe, that to gabble about names that meant nothing was the proper use of speech. He called it "Big Thinks" to distinguish it from "Little Thinks," the sane every-day interests of life. If ever I made a remark he did not understand, he would praise it very much, ask me to say it again, learn it by heart, and go off repeating it, with a word wrong here or there, to all the milder of the Beast People. He thought nothing of what was plain and comprehensible. I invented some very curious "Big Thinks" for his especial use. I believe now that he was the silliest creature I never met; he had developed in the most wonderful way the distinctive silliness of man without losing one jot of the natural folly of a monkey.

This, I say, was in the earlier weeks of my solitude among these brutes. During that time they respected the usage established by the Law, and behaved with general decorum. Once I found another rabbit torn to pieces,—by the Hyena-swine, I am assured,—but that was all. It was

about May when I first distinctly perceived a growing difference in their speech and carriage, a growing coarseness of articulation, a growing disinclination to talk. My Monkey-man's jabber multiplied in volume, but grew less and less comprehensible, more and more simian. Some of the others seemed altogether slipping their hold upon speech, though they still understood what I said to them at that time. (Can you imagine language, once clear-cut and exact, softening and guttering, losing shape and import, becoming mere lumps of sound again?) And they walked erect with an increasing difficulty. Though they evidently felt ashamed of themselves, every now and then I would come upon one or another running on toes and finger-tips, and quite unable to recover the vertical attitude. They held things more clumsily; drinking by suction, feeding by gnawing, grew commoner every day. I realised more keenly than ever what Moreau had told me about the "stubborn beast-flesh." They were reverting, and reverting very rapidly.

My Dog-man imperceptibly slipped back to the dog again; day by day he became dumb, quadrupedal, hairy. I scarcely noticed the transition from the companion on my right hand to the lurching dog at my side.

As the carelessness and disorganisation increased from day to day, the lane of dwelling-places, at no time very sweet, became so loathsome that I left it, and going across the island made myself a hovel of boughs amid the black ruins of Moreau's enclosure. Some memory of pain, I found, still made that place the safest from the Beast Folk.

It would be impossible to detail every step of the lapsing of these monsters,—to tell how, day by day, the human semblance left them; how they gave up bandagings and wrappings, abandoned at last every stitch of clothing; how the hair began to spread over the exposed limbs; how their foreheads fell away and their faces projected; how the quasi-human intimacy I had permitted myself with some of them in the first month of my loneliness became a shuddering horror to recall.

The change was slow and inevitable. For them and for me it came without any definite shock. I still went among them in safety, because no jolt in the downward glide had released the increasing charge of explosive animalism that ousted the human day by day. But I began to fear that soon now that shock must come. My Saint-Bernard-brute followed me to the enclosure every night, and his vigilance enabled me to sleep at times in something like peace. The little pink sloth-thing became shy and left me, to crawl back to its natural life once more among the tree-branches. We were in just the state of equilibrium that would remain in one of those "Happy Family" cages which animal-tamers exhibit, if the tamer were to leave it for ever.

Of course these creatures did not decline into such beasts as the reader has seen in zoological gardens,—into ordinary bears, wolves, tigers, oxen, swine, and apes. There was still something strange about each; in each Moreau had blended this animal with that. One perhaps was ursine chiefly; but each was tainted with other creatures,—a kind of generalised animalism appearing through the

specific dispositions. And the dwindling shreds of the humanity still startled me every now and then,—a momentary recrudescence of speech perhaps, an unexpected dexterity of the fore-feet, a pitiful attempt to walk erect.

I too must have undergone strange changes. My clothes hung about me as yellow rags, through whose rents showed the tanned skin. My hair grew long, and became matted together. I am told that even now my eyes have a strange brightness, a swift alertness of movement.

At first I spent the daylight hours on the southward beach watching for a ship, hoping and praying for a ship. I counted on the "Ipecacuanha" returning as the year wore on; but she never came. Five times I saw sails, and thrice smoke; but nothing ever touched the island. I always had a bonfire ready, but no doubt the volcanic reputation of the island was taken to account for that.

It was only about September or October that I began to think of making a raft. By that time my arm had healed, and both my hands were at my service again. At first, I found my helplessness appalling. I had never done any carpentry or such-like work in my life, and I spent day after day in experimental chopping and binding among the trees. I had no ropes, and could hit on nothing wherewith to make ropes; none of the abundant creepers seemed limber or strong enough, and with all my litter of scientific education I could not devise any way of making them so. I spent more than a fortnight grubbing among the black ruins of the enclosure and on the beach where the boats had been burnt, looking for nails and other stray pieces of metal that might prove of service. Now and then some Beast-creature would watch me, and go leaping off when I called to it. There came a season of thunder-storms and heavy rain, which greatly retarded my work; but at last the raft was completed.

I was delighted with it. But with a certain lack of practical sense which has always been my bane, I had made it a mile or more from the sea; and before I had dragged it down to the beach the thing had fallen to pieces. Perhaps it is as well that I was saved from launching it; but at the time my misery at my failure was so acute that for some days I simply moped on the beach, and stared at the water and thought of death.

I did not, however, mean to die, and an incident occurred that warned me unmistakably of the folly of letting the days pass so,—for each fresh day was fraught with increasing danger from the Beast People.

I was lying in the shade of the enclosure wall, staring out to sea, when I was startled by something cold touching the skin of my heel, and starting round found the little pink sloth-creature blinking into my face. He had long since lost speech and active movement, and the lank hair of the little brute grew thicker every day and his stumpy claws more askew. He made a moaning noise when he saw he had attracted my attention, went a little way towards the bushes and looked back at me.

At first I did not understand, but presently it occurred to me that he wished me to follow him; and this I did at last,—slowly, for the day was hot. When we reached the trees he clambered into them,

for he could travel better among their swinging creepers than on the ground. And suddenly in a trampled space I came upon a ghastly group. My Saint-Bernard-creature lay on the ground, dead; and near his body crouched the Hyena-swine, gripping the quivering flesh with its misshapen claws, gnawing at it, and snarling with delight. As I approached, the monster lifted its glaring eyes to mine, its lips went trembling back from its red-stained teeth, and it growled menacingly. It was not afraid and not ashamed; the last vestige of the human taint had vanished. I advanced a step farther, stopped, and pulled out my revolver. At last I had him face to face.

The brute made no sign of retreat; but its ears went back, its hair bristled, and its body crouched together. I aimed between the eyes and fired. As I did so, the Thing rose straight at me in a leap, and I was knocked over like a ninepin. It clutched at me with its crippled hand, and struck me in the face. Its spring carried it over me. I fell under the hind part of its body; but luckily I had hit as I meant, and it had died even as it leapt. I crawled out from under its unclean weight and stood up trembling, staring at its quivering body. That danger at least was over; but this, I knew, was only the first of the series of relapses that must come.

I burnt both of the bodies on a pyre of brush-wood; but after that I saw that unless I left the island my death was only a question of time. The Beast People by that time had, with one or two exceptions, left the ravine and made themselves lairs according to their taste among the thickets of the island. Few prowled by day, most of them slept, and the island might have seemed deserted to a new-comer; but at night the air was hideous with their calls and howling. I had half a mind to make a massacre of them; to build traps, or fight them with my knife. Had I possessed sufficient cartridges, I should not have hesitated to begin the killing. There could now be scarcely a score left of the dangerous carnivores; the braver of these were already dead. After the death of this poor dog of mine, my last friend, I too adopted to some extent the practice of slumbering in the daytime in order to be on my guard at night. I rebuilt my den in the walls of the enclosure, with such a narrow opening that anything attempting to enter must necessarily make a considerable noise. The creatures had lost the art of fire too, and recovered their fear of it. I turned once more, almost passionately now, to hammering together stakes and branches to form a raft for my escape.

I found a thousand difficulties. I am an extremely unhandy man (my schooling was over before the days of Slojd); but most of the requirements of a raft I met at last in some clumsy, circuitous way or other, and this time I took care of the strength. The only insurmountable obstacle was that I had no vessel to contain the water I should need if I floated forth upon these untravelled seas. I would have even tried pottery, but the island contained no clay. I used to go moping about the island, trying with all my might to solve this one last difficulty. Sometimes I would give way to wild outbursts of rage, and hack and splinter some

unlucky tree in my intolerable vexation. But I could think of nothing.

And then came a day, a wonderful day, which I spent in ecstasy. I saw a sail to the southwest, a small sail like that of a little schooner; and forthwith I lit a great pile of brushwood, and stood by it in the heat of it, and the heat of the midday sun, watching. All day I watched that sail, eating or drinking nothing, so that my head reeled; and the Beasts came and glared at me, and seemed to wonder, and went away. It was still distant when night came and swallowed it up; and all night I toiled to keep my blaze bright and high, and the eyes of the Beasts shone out of the darkness, marvelling. In the dawn the sail was nearer, and I saw it was the dirty lug-sail of a small boat. But it sailed strangely. My eyes were weary with watching, and I peered and could not believe them. Two men were in the boat, sitting low down,—one by the bows, the other at the rudder. The head was not kept to the wind; it yawed and fell away.

As the day grew brighter, I began waving the last rag of my jacket to them; but they did not notice me, and sat still, facing each other, I went to the lowest point of the low headland, and gesticulated and shouted. There was no response, and the boat kept on her aimless course, making slowly, very slowly, for the bay. Suddenly a great white bird flew up out of the boat, and neither of the men stirred nor noticed it; it circled round, and then came sweeping overhead with its strong wings outspread.

Then I stopped shouting, and sat down on the headland and rested my chin on my hands and stared. Slowly, slowly, the boat drove past towards the west. I would have swum out to it, but something—a cold, vague fear—kept me back, and left it a hundred yards or so to the westward of the ruins of the enclosure. The men in it were dead, had been dead so long that they fell to pieces when I tilted the boat on its side and dragged them out. One had a shock of red hair, like the captain of the "Ipecacuanha," and a dirty white cap lay in the bottom of the boat.

As I stood beside the boat, three of the Beasts came slinking out of the bushes and sniffing towards me. One of my spasms of disgust came upon me. I thrust the little boat down the beach and clambered on board her. Two of the brutes were Wolf-beasts, and came forward with quivering nostrils and glittering eyes; the third was the horrible nondescript of bear and bull. When I saw them approaching those wretched remains, heard them snarling at one another and caught the gleam of their teeth, a frantic horror succeeded my repulsion. I turned my back upon them, struck the lug and began paddling out to sea. I could not bring myself to look behind me.

I lay, however, between the reef and the island that night, and the next morning went round to the stream and filled the empty keg aboard with water. Then, with such patience as I could command, I collected a quantity of fruit, and waylaid and killed two rabbits with my last three cartridges. While I was doing this I left the boat moored to an inward projection of the reef, for fear of the Beast People.

## CHAPTER XXII

## The Man Alone

IN the evening I started, and drove out to sea before a gentle wind from the southwest, slowly, steadily; and the island grew smaller and smaller, and the lank spire of smoke dwindled to a finer and finer line against the hot sunset. The ocean rose up around me, hiding that low, dark patch from my eyes. The daylight, the trailing glory of the sun, went streaming out of the sky, was drawn aside like some luminous curtain, and at last I looked into the blue gulf of immensity which the sunshine hides, and saw the floating hosts of the stars. The sea was silent, the sky was silent. I was alone with the night and silence.

So I drifted for three days, eating and drinking sparingly, and meditating upon all that had happened to me,—not desiring very greatly then to see men again. One unclean rag was about me, my hair a black tangle: no doubt my discoverers thought me a madman.

It is strange, but I felt no desire to return to mankind. I was only glad to be quit of the foulness of the Beast People. And on the third day I was picked up by a brig from Apia to San Francisco. Neither the captain nor the mate would believe my story, judging that solitude and danger had made me mad; and fearing their opinion might be that of others, I refrained from telling my adventure further, and professed to recall nothing that had happened to me between the loss of the "Lady Vain" and the time when I was picked up again,—the space of a year.

I had to act with the utmost circumspection to save myself from the suspicion of insanity. My memory of the Law, of the two dead sailors, of the ambuscades of the darkness, of the body in the cane-brake, haunted me; and, unnatural as it seems, with my return to mankind came, instead of that confidence and sympathy I had expected, a strange enhancement of the uncertainty and dread I had experienced during my stay upon the island. No one would believe me; I was almost as queer to men as I had been to the Beast People. I may have caught something of the natural wildness of my companions. They say that terror is a disease, and anyhow I can witness that for several years now a restless fear has dwelt in my mind,—such a restless fear as a half-tamed lion cub may feel.

My trouble took the strangest form. I could not persuade myself that the men and women I met were not also another Beast People, animals half wrought into the outward image of human souls, and that they would presently begin to revert,= to show first this bestial mark and then that. But I have confided my case to a strangely able man,—a man who had known Moreau, and seemed half to credit my story; a mental specialist,—and he has helped me mightily, though I do not expect that the terror of that island will ever altogether leave me. At most times it lies far in the back of my mind, a mere distant cloud, a memory, and a faint distrust; but there are times when the little cloud spreads until it obscures the whole sky. Then I look about me at my fellow-men; and I go in danger. I see faces, keen and bright; others, dull or dangerous; others, unsteady, insincere,—none that

have the calm authority of a reasonable soul. I feel as though the animal was surging up through them; that presently the degradation of the Islanders will be played over again on a larger scale. I know this is an illusion; that these seeming men and women about me are indeed men and women,—men and women for ever, perfectly reasonable creatures, full of human desires and tender solicitude, emancipated from instinct and the slaves of no fantastic Law,—beings altogether different from the Beast Folk. Yet I shrink from them, from their curious glances, their inquiries and assistance, and long to be away from them and alone. For that reason I live near the broad free downland, and can escape thither when this shadow is over my soul; and very sweet is the empty downland then, under the wind-swept sky.

When I lived in London the horror was well-nigh insupportable. I could not get away from men: their voices came through windows; locked doors were flimsy safeguards. I would go out into the streets to fight with my delusion, and prowling women would mew after me; furtive, craving men glance jealously at me; weary, pale workers go coughing by me with tired eyes and eager paces, like wounded deer dripping blood; old people, bent and dull, pass murmuring to themselves; and, all unheeding, a ragged tail of gibing children. Then I would turn aside into some chapel,—and even there, such was my disturbance, it seemed that the preacher gibbered "Big Thinks," even as the Ape-man had done; or into some library, and there the intent faces over the books seemed but patient creatures waiting for prey. Particularly nauseous were the blank, expressionless faces of people in

trains and omnibuses; they seemed no more my fellow-creatures than dead bodies would be, so that I did not dare to travel unless I was assured of being alone. And even it seemed that I too was not a reasonable creature, but only an animal tormented with some strange disorder in its brain which sent it to wander alone, like a sheep stricken with gid.

This is a mood, however, that comes to me now, I thank God, more rarely. I have withdrawn myself from the confusion of cities and multitudes, and spend my days surrounded by wise books,—bright windows in this life of ours, lit by the shining souls of men. I see few strangers, and have but a small household. My days I devote to reading and to experiments in chemistry, and I spend many of the clear nights in the study of astronomy. There is—though I do not know how there is or why there is—a sense of infinite peace and protection in the glittering hosts of heaven. There it must be, I think, in the vast and eternal laws of matter, and not in the daily cares and sins and troubles of men, that whatever is more than animal within us must find its solace and its hope. I hope, or I could not live.

And so, in hope and solitude, my story ends.

EDWARD PRENDICK.

NOTE.

*The substance of the chapter entitled "Doctor Moreau explains," which contains the essential idea of the story, appeared as a middle article in the "Saturday Review" in January, 1895. This is the only portion of this story that has been previously published, and it has been entirely recast to adapt it to the narrative form.*

# Readers' Vote of Preference

STORY

REMARKS

- (1) .....
- (2) .....
- (3) .....

I do not like these stories;

Why?

- (1) .....
- (2) .....

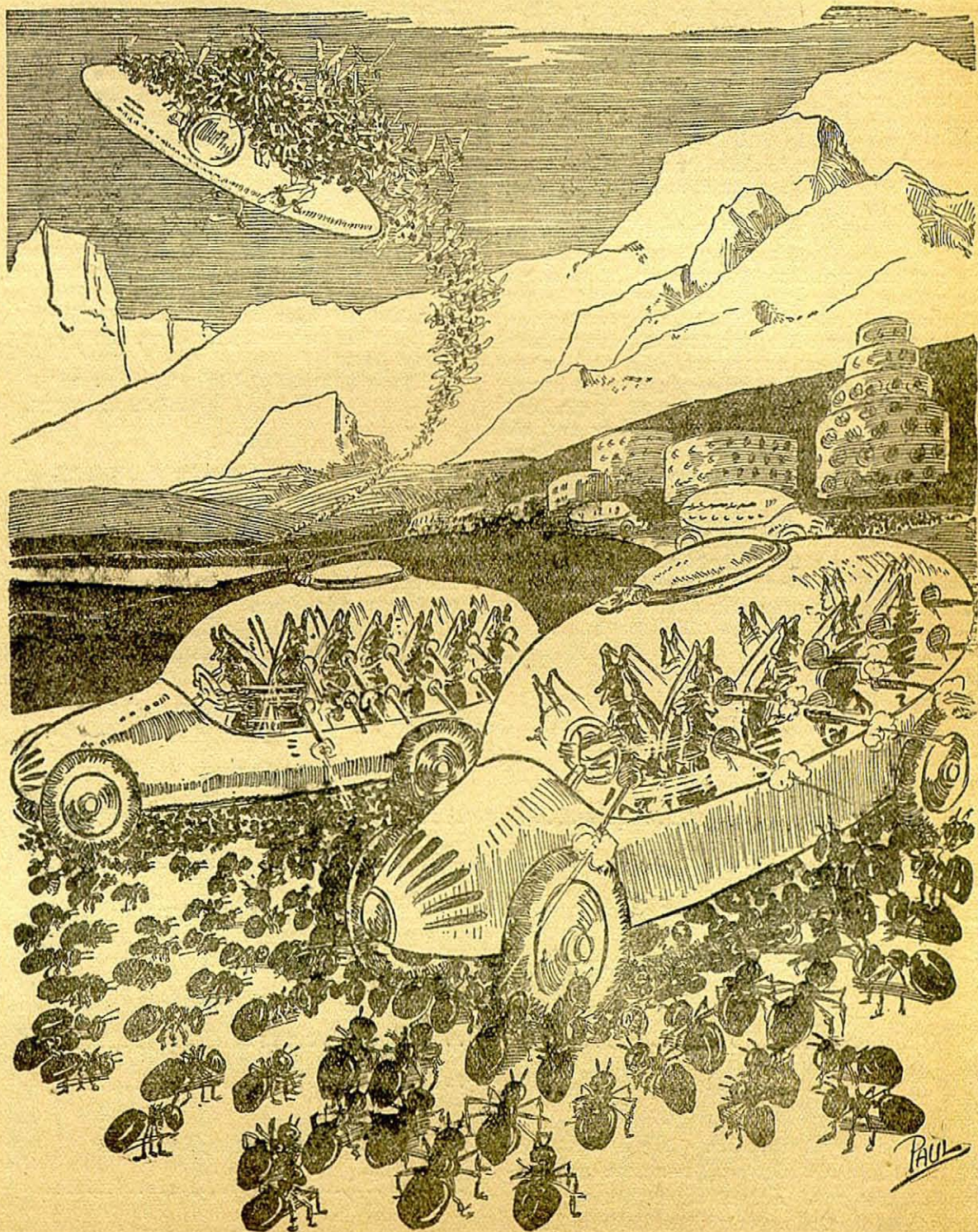
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# BEYOND *The* POLE

~ *By A. Hyatt Verill* ~



. . . The airships are next to useless. Let an airship rise aloft and the swarming queen ants light upon it by hundreds and bear it to earth with their weight, but the wheeled vehicles, protected, transformed to miniature forts of metal and filled with armed beings carry terror and destruction among the ants, crushing them beneath the wheels while arrows and bullets strike them down.

# What Went Before

**I**N this story we are told of a ship which strikes an iceberg and running aground, as it were, on a shelving projection is held in a sort of prison, and all except two leave the ship in the boats. The two who remain go ashore where one of them dies, and the survivor, who is supposed to be the writer of the story, wanders over high hills until he finds a great area below their level and descends into this country, which is warm and of fertile soil although it is in the Antarctic.

He tells of meeting strange beings that resemble crustaceans, who stand erect and are larger than

men, but who are of the utmost benevolence in nature and prove in their own way to be highly civilized. He tells of their mode of life and of their remarkable achievements. They have a deep knowledge of mechanics, chemistry, and other sciences but have one curious restriction, that they cannot leave their country. The reason will be eventually told. The story is supposed to be the contents of a manuscript which was found in a curious receptacle attached to an albatross, and which was given publicity by the finder who was supposed to be responsible for telling the story.

## BEYOND THE POLE

By A. HYATT VERILL

### CHAPTER VI



**F** the inhabitants of this country, which I now feel sure is a continent or an immense island in the unexplored area beyond the south pole, I might write many pages. But this manuscript must not be too long, for even written as it is on this wonderfully thin and light material, yet I must have a care that it is not too heavy for the winged messenger to whom I intend to entrust it.

I have already described, to the best of my ability, the personal or physical appearance of the strange beings among whom, I fear, I am destined to remain for the rest of my life. Also, I have spoken of their means of communicating with one another and with myself, and here and there I have given short accounts of their habits and occupations and of their wonderful inventions and accomplishments. But as yet, I have said nothing of their social or family life, their thoughts, laws, codes, public institutions and many other matters which have proved vastly interesting to me, and may perhaps interest my fellow men if Fate wills that this manuscript ever reaches them.

There is so much to write that is strange, incredible and difficult to describe, that I hardly know where to begin. Many long months passed before I could carry on a thought conversation clearly enough to get an insight into many matters; but now that I have been here for over a year, as nearly as I can figure it out, I am able to make myself understood and to understand them as readily as if we spoke a common language.

First perhaps, I should mention that these creatures are comparatively short lived. They seldom reach an age which in my world would be forty years, but as they mature in an incredibly short time their lives are proportionately as long as our own. That is, these creatures become fully grown and with fully developed powers, both mentally and

physically, in only a few weeks after emerging from their eggs, so that their life of full mental and physical power is about forty years, whereas human beings who require from twenty to thirty years to reach full mental and physical power, would have to live to sixty or seventy years in order to equal these beings. Moreover, their mental and physical powers remain unimpaired until death, and age, as we know it, does not exist. Thus their full span of life is made available for their utmost endeavors. I have spoken of them as hatching from eggs and this was to me a most astounding thing when I discovered it. But after all it should not have surprised me, for being crustacean-like, there is no reason why they should not have crustacean-like traits of development and life. The eggs are deposited in places provided for the purposes and are there carefully watched over by beings whose lives are devoted to the purpose, and the young, when they emerge from the eggs, are separated into groups, each group or collection being destined for training, or I might say development, for special purposes. Thus one group will be destined for miners, another for chemists, others for artisans and so on. And the number of young selected for

each group is decided by the demands for the specific trades or professions for which they are destined. Thus, if there are a normal number of healthy and able bodied miners and no necessity for more, none of the young of that particular time will be destined for that trade, whereas, if there are

say two thousand artisans needed that many young will be set apart for development as artisans. Also, if the number of eggs exceeds the number which the rulers deem necessary, the surplus are destroyed before the young emerge. This is a matter determined by calculations as to the number of beings who are expected to die during the year, and the number of inhabitants who can be safely permitted to exist without danger of want or improper accommodations. As a result, there is no

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*I*N the concluding installment we find our explorer enmeshed deeply in the talons—or should we say claws—of the crustacean civilization. Imagine his feelings, the only human being, alone in such a land of wonders—and what is going to be the end? Will the lobster-like creatures stay beyond the pole, or will they, perhaps, overrun the other habited part of the earth? All of this, of course, you will find out as you go on reading the tale with breathless interest. It is the best scientific story of the year, so far, and we know you will like it.

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poverty, no want, no idleness and no suffering in the entire country and no surplus or lack of any trade or profession. To me it seemed a most barbarous and inhuman practice at first, but after all they are not human. And in many ways it is a most admirable idea and I cannot help comparing the extraordinary well-being and universal content of these creatures with the dissatisfaction, poverty and suffering of the human race. Moreover, there is no sickness or illness among them. Any member injured or ill is at once done away with, for, so they argue, to cure a sick or injured being necessitates the services of one or more others, even if the ill or injured creature survives and recovers, whereas, should he or she remain a cripple or unfit for duty, he or she is an impediment and may require the constant services of others, as well as the sustenance and support which might be better devoted to healthy, perfect individuals. It may seem a merciless system, but these beings have no sentiment, affection or love as we know them.

Their entire lives are devoted to the well being of the whole community and to performing the duties allotted them. But I do not mean by that they are lacking in pleasures or recreations or are ceaseless workers like the ants. They realize that ceaseless labor drains their powers and that change is a necessity, and their hours of work and recreation are regulated. But their recreations are to me most strange. They consist largely of frolicking in the water, like genuine water creatures, or of racing madly about in a sort of dance until utterly exhausted. Also, they have queer games and athletic contests, and in these they are often so seriously injured as to result in their being done away with. Not that the loss of a limb or of several limbs amounts to much for these creatures can lose nearly all their exterior organs and be none the worse after a few weeks, for like lobsters and crabs, they grow new limbs or appendages readily, and after shedding their skins or shells, appear as whole as ever. This shedding process was of course an astounding thing to me at first, though quite natural, but it was, I am told, one of the greatest drawbacks to their development and well-being and in years long past was a terrific problem to solve. In those days thousands of the creatures shed their old skins at the same time, and for days thereafter, were soft, tender, almost helpless and unfit for duty, and thus the entire nation was at a standstill and was exposed to the attacks of their enemies,—the giant ants and other creatures. Gradually, however, by changing diet and regulating the development of eggs and young, the creatures managed to produce a race whose members did not shed all at once, but cast off their shells at various seasons, so that only a portion of their numbers were helpless at one time. Moreover, they found that garments or coverings could be devised to protect their tender bodies and permit them to perform certain duties.

Of course, though it was amazing to me at first, there are no real family ties and no such things as love or marriage. The males and females perform equal work and are on perfect equality and merely mate at the call of nature for the purpose of propagating the race. At one time, I understand, the beings mated for life and reared their own eggs and

young, but the females gradually rebelled at being forced to take no part in the industries and being compelled to devote their time to domestic duties, and the rulers, finding that the race was dying out through neglect of eggs and young; and that countless numbers of the dissatisfied females produced no offspring, were compelled to accede to the females' demands and take over all eggs and young as government wards. This soon led to the females refusing to mate for any considerable length of time, and gradually all family relations were done away with. Also, this led to the necessity of the government predetermining the life and occupation of each young individual, and of destroying thousands of eggs each season. In the old days the young of an artizan or a miner became miners or artizans and inherited many of their parents' traits, while the fact that the females were obliged to rear their own young resulted in limited numbers of progeny. But with the new order of things it was impossible to say who were the parents of the accumulated eggs, and released from all care the females produced far greater numbers of eggs than could be raised without overcrowding the country.

Also, I am told, the females in former times were quite distinct from the males both in physical and mental characters. They were smaller, weaker and more delicate and were quiet, docile and somewhat affectionate. But now I find that it is with the utmost difficulty that the two sexes can be distinguished and that if anything, the females are the larger, stronger and more hardy of the two. Indeed, I was amazed to find that most of the soldiers or police, as well as many of the miners and laborers were females, and, so I was told, whatever troubles or dissensions had arisen were always caused by the aggressive females.

Indeed, I was informed confidentially that the rulers had decided to limit the number of females and were surreptitiously destroying all female young not absolutely necessary for the propagation of the race. This was a most difficult matter, for several members of the government were females and they were anxious to increase the numbers of their sex until all power should be in female hands. To destroy a young creature after it had emerged from the egg unless it is malformed, is a most serious crime and hitherto no one had been able to distinguish a male from a female egg. But, so I was told, one of the greatest chemists or scientists had discovered a means of determining the egg sex and fortunately this scientist was a male. The secret had been assiduously kept from reaching the females and so when eggs were to be destroyed the males could select the female eggs for destruction.

Another rather astounding trait that I discovered was that these creatures are stone deaf when their skins are first shed and that their ears are quite useless until they have placed small pebbles within them.

Whether the presence of these stones enables them to communicate with one another, and with me, without sounds, I cannot say, but it is such a remarkable habit that I feel sure it must have some bearing on the matter" (See foot note by Dr. Lyman)<sup>1</sup>.

<sup>1</sup>(Foot note by Dr. Lyman)



This habit and their habit of shedding led to a most amusing incident soon after my arrival in this place. Feeling in need of a bath I made my way to the lake, and disrobing, plunged into the water. As I emerged I found a group of the creatures gathered about my ragged clothing and examining the garments with the greatest interest and evident excitement. Then they insisted upon feeling of my naked body and expressed the greatest amazement that I had changed so greatly in appearance. But they were still more amazed when I again put on my clothes. Then one of the beings brought several pebbles which he—with kindly intentions no doubt—tried to insert in my ears. It was with the greatest difficulty that I prevented this and when the creatures found that I could hear without the bits of stone they were absolutely dumbfounded. Neither could they understand—and cannot to this day—why I should not be able to remain under water for hours and crawl about on the bottom as they do.

But to return to their lives and habits. The government, as I have called it, is not like anything on our part of the earth. There are to be sure certain members of the race to whom I have referred as rulers, but they are not rulers in the ordinary sense. The government, if such it may be called, consists of a great number of individuals chosen by the inhabitants to perform certain duties.

Thus one lot had charge of the eggs, another regulates the production of metal, another looks after the food supplies, another has charge of the buildings and so on. Each community appoints a certain number of the members of each of these groups, and those appointed cannot do anything nor make any rules or decisions without the knowledge and consent of the communities from which they are appointed.

Moreover, as these regulators or committeemen, as I may call them, are reared from the eggs with the sole purpose of fulfilling such duties, they have no other objects or purposes in life and carry out their duties honestly and to the best of their abilities.

Each one is delegated to his post for life, and if he or she fails to carry out his or her duties, or in any way disobeys the orders of the community, dire punishment results.

In former times this was death, but the beings, though so heartless and cold blooded in many ways, have done away with the death penalty now and have hit upon a far more sensible plan which would be a credit to human beings. To destroy life, they argue, is, if the being is healthy and uninjured, a loss to the community and necessitates a vast

and zoölogy had not brought to his attention the well known fact that many if not all crustaceans possess this same habit. Indeed, our common decapods—lobsters and crabs—are almost helpless and appear to lack the sense of direction and the power of definite movements and hearing until tiny grains of sand had been inserted in their ears.

Possibly, in the super-developed crustacean-like creatures Mr. Bishop describes, the pebbles in the ears have some bearing upon their strange means of inter-communication, acting possibly as sensitive detectors to vibratory waves or as sound amplifiers to make the waves audible. Mr. Bishop also forgot, or was not aware, that the higher vertebrates and even human beings possess small bones or bony objects in the ears. The exact use of these has never been definitely ascertained, although it is known that they control the sense of balance, but it is not impossible that they also serve to pick up inaudible waves and thus give human beings and other mammals a sense of direction or the "sixth sense" so much more developed in some individuals than others. It is even within the bounds of possibility that the inexplicable feats of mental telepathy and mind reading may depend upon the development or sensitiveness of these ear bones.—A. E. L.

amount of time and trouble in fitting another to take the place of the individual destroyed. So, instead of killing offenders, the violator of law or customs is sent to a far distant part of the country which is devoted entirely to such offenders, and there is forced to rely upon his or her own resources to live and succeed. It is in this way that all the communities are first established. These convict colonies, as I might call them, are under the supervision of the chief settlement and each year are inspected.

If all is going well a certain number of the young of both sexes and different professions is allotted to them, while if matters are not being carried out satisfactorily the colony is broken up and the members divided among other new colonies in still more isolated parts of the land.

Moreover, any disturbances or troubles which may arise or any rebellions against the authorities, are quickly quelled without loss of life or bloodshed. This is done by simply turning off the power in the community where the trouble occurs, and, without the power from the great central station, the beings are utterly helpless. They cannot have light, cannot prepare food, cannot use their airships and cannot exist for any length of time.

I have spoken of the soldiers or police, and have said that as there is no further need for them they are being given up, and that no new members of the force are being raised. Wars among themselves are things of the distant past and the only use for the police today is to regulate sanitary and other rules and to act as escorts or guards and to prevent injuries in crowds or through accidents. But such things are now so rare and the beings are so well trained and so careful to follow out all rules and regulations, which they make themselves, that the police have little to do. Indeed, I was told that the occasion of my arrival was the first time that this body had been called out in more than twenty years.

I have so often spoken of things occurring in years past or of happenings ages ago that a word of explanation is necessary. There is, I found, a group of the creatures whose sole duty is to keep the history and records of the country and its denizens. These records are never written, but are retained in the minds of the historians. And, incredible as it may appear, so long have these beings been trained to this one duty that their power to remember the most minute details is simply amazing. They know nothing else to be sure, and are almost too helpless even to move or feed themselves, for every sense is devoted to storing away facts for future reference. Of course one would think that there must come a time when the historical facts would become so numerous that no brain could hold them, but this is overcome in a very clever manner.

No one member of the historian group is expected to remember more than a certain number of facts, or more than a certain number of different facts. Each member retains facts of his own particular class which cover a certain period so that these beings are like a number of volumes. Each year the number of historians in each class is increased by two, or, as I might say, the living volumes of the nation's history are added to annually, one of the new members of each class absorbing and

memorizing all the data of the oldest historian in his class, while the other new member of each class memorizes every event in his line which occurs during the year following his appointment. Thus the material known to the older members is always duplicated in a young new member and cannot be lost if the former dies or meets with an accident, while new events are recorded on fresh brains without adding to the burden on the older ones. At the present time there are approximately twenty-thousand of these living volumes of history and by means of calculations—which I found far more involved than working out a ship's position by stars—I found that the history thus available covers a period of about thirty-two thousand years, for in earlier days the new members were not appointed annually. Of course it is a rather difficult matter to look up any certain fact with such a mental history to refer to, but the fact that each class or line of incidents is in the mental charge of separate beings renders it more easy. Thus there are beings who know nothing of history with the exception of industrial events, others know only those occurrences related to politics, others to inventions, others to wars and still others whose minds are filled with facts and data regarding scientific matters.

But as I have said before there is no such time as years as we know them, all time being divided or calculated from generation to generation, but as the new broods of the creatures arrive very nearly a year apart—as nearly as I can figure it out—their computation of time corresponds roughly with our years. And now, while I think of it, let me mention a most remarkable thing which attracted my attention from the first, but which remained a mystery to me for a long time. I mentioned that when I first reached the land I noted an intense blue quality to the light, and after my first amazement at the strange inhabitants and my confusion at my surroundings had passed, I noticed that there was no night. At first I thought that I was mistaken in this and that I had merely slept the twenty-four hours through, but I soon discovered that darkness never descended on this land, and that bright light streamed steadily from the sky. I had thought this was most amazing and that the sun always shone. But I soon found that this was not the case, and that there were streamers of light like the aurora which, however, remained steadfast and like great bands of blinding flame constantly shedding their light upon the place. Moreover, these bands gave, as I have said, a blue or rather violet light, but whether this was the actual color of the light itself or was due to some peculiarity in the atmosphere I have never learned.

I feel sure, however, that this ceaseless daylight and the fact that the warm and balmy climate never varies ten degrees, was the cause of all animal life growing to huge proportions, and also aided the strange crustacean-like beings to reach such a high state of development. It also accounted for their dwelling being underground, while the blue quality of the light was, I found, an important factor in many things. Later, as I shall explain, I discovered that without it many remarkable things were impossible. But I am digressing and must return to the subject of the inhabitants, although it

was the fact that the light had a great influence on them that caused me to make a note of the double suns and the light at this point of my narrative.

I stated that each class of the inhabitants was distinct, and that the appendages of a miner, artisan, chemist, etc., were adapted to the duties of each, and yet I soon found that the newly hatched young were all identical. Moreover, they bore no slightest resemblance to the adults. They were, in fact, pulpy, soft, misshapen things with immense goggle eyes, spiny heads, and with slender, worm-like, naked bodies bearing ten little flipper-like appendages. A few hours after hatching out they shed their skins and altered in appearance, and every day or two thereafter, their shells were cast, and with each shedding they became more and more like the full grown creatures. But during this period between hatching and full development, they could be incredibly altered or changed by being fed with certain foods or chemicals and by being exposed to certain forces, or I might say rays, produced by combinations of the black mineral and sulphur compounds. Thus, if a batch of young is selected to be chemists they are specially treated as soon as hatched, and each time their skins are cast their appendages become more and more like those of the chemists, until when fully developed, they are perfectly adapted to their predestined trade.

I must not forget, too, to call attention to the fact that there are no rich or well-to-do members of the community, that is, in the way that we understand riches. Some of the beings have more luxurious homes than others, some seem more brilliantly garbed, and some possess air ships while others do not. But anyone may if he or she desires, have as much as any of the others. It is all a matter of wishes and personal tastes, for the resources of the entire country are equally at the disposal of all. Not that any inhabitant can demand a luxurious home, magnificently colored garments and a huge airship. Whatever is allowed the being is his or her just dues as a pro-rata share of all and if a taste runs to airships rather than luxuries at home, the individual can follow his or her taste in the matter. All power, light and sustenance are however equally divided and there is no such thing as money or trade. Services are the only values here, and as each trade or profession is predetermined, all services are accounted of equal value and there are no social cliques or lines and no aristocracy. A miner or laborer is equal in every way to one of the rulers or the guardians of the community, and is entitled to an equal share in everything needed.

But the large ships, such as the one in which I had traveled across the sea to the city, were I found community craft. They are, so to speak, government airships and constantly patrol the entire country, or are used in carrying workers to far distant places and distributing necessities and supplies among the inhabitants. They are the only means of transportation and I was amazed that these beings should have invented such marvelous craft and yet know nothing of railways, motor cars, or in fact any form of wheeled vehicle. But I discovered, a short time ago, why this is so, and my discovery was, in many ways, far more astonishing than anything I had learned since reaching this remarkable land.

## CHAPTER VII

I FIND, that for some reason, I have become greatly changed since reaching this strange country. I have become philosophical, or perhaps I might better say pessimistic, and I have spent many hours pondering on matters to which, hitherto, I gave no thought. I have wondered why these beings exist, why they toil and labor and progress, and what part they play in the scheme of this universe. When I have asked what object they had in view, why they strove, I have been told that it was for the good of the race, for the benefit of the nation, for the future of their kind. Exactly the same answers that I have heard to similar queries from humans. But what I have wondered, is that good, that benefit, that future? Meaningless words, I think. Here are these creatures, laboring that they may live, living that they may labor,—in an endless circle. To be sure they have advanced in some ways far beyond my fellow men, and no doubt will advance still more, but of what avail? They are but giant crustaceans after all, and they hatch from eggs, toil through life at the tasks to which they are trained, and come to their death and are forgotten after their brief span of life has been spent, and the world knows not even that they exist. And on the other side of the world, in the land of men, human beings are born, labor and die utterly unknown to these beings. What does it all mean; what place has it all in the scheme of the Universe, I wonder? And when I think on such matters I feel that after all my life is of little moment, that though I am here and my lot is cast among such weird beings, it makes no difference to the world or to the future, for I am but an atom of the whole, one of countless millions of cogs in the gigantic wheel of nature. And while I cannot fathom the riddle of life yet I feel that I must have my place in the whole, that Fate has seen fit to place me here and that, even if all the puny efforts of men and of these creatures seem to lead nowhere, yet must each one of us, and of them, be as essential to the machinery of the Universe as any cog in a real wheel, and without which the whole vast mechanism would jar and jolt and go wrong. So, instead of brooding upon my lot and spending my time vainly wishing to regain my fellow men, I have become resigned.

But I can find no affection, no liking, no fellow feeling for these beings. They have treated me kindly, my every want is provided for, and I occupy a far more important place than ever I could have filled in my world. And in brains, in attainments and in many other ways these beings are even more human than human beings. Yet so strongly influenced are we by physical appearances that to me these creatures are still but beasts and I feel apart from them and with little in common. It is perhaps akin to the feeling that one race of human beings has for another, the same feeling that prevents the white and black races from thorough sympathy and understanding, and that creates prejudices and ill feelings in the nations of the world I knew.

And another thing. These beings, though so intelligent, so industrious, so far advanced, are such brainless, silly creatures! Though they toil and work feverishly and seem to have no idle mom-

ents to spare, yet they will cease all, will drop everything and gather in crowds for the most trivial reasons. Yes, even without a reason. Let one of the scurrying, hurrying workers stop and gaze about and instantly a crowd collects, all gazing in the same direction, though there is nothing unusual to be seen, and quite forgetting the tasks on which they were sent. And they are childish to a degree. The simplest, most nonsensical things will fascinate them to such an extent that everything is at a standstill.

Wishing to find exercise and recreation I devised a set of ninepins and a ball, and at sight of these, the throngs grew wildly excited. They gathered about, waving their antennae, turning their long-stalked eyes about, dropping everything, and for an entire day practically all work was abandoned while the beings amused themselves with my crude toys. Tossing a ball and catching it, spinning a top, and a score of other simple amusements, proved equally exciting and interesting to the beings, and the rulers begged me to confine my activities at such things to recreation hours for fear a great calamity might result.

But after all in such matters they are much like men and I wonder if the planets are inhabited and if their denizens also possess similar characteristics and peculiarities.

All this, however, is leading me from the course of my narrative. I have mentioned that I discovered why the beings had no vehicles, save airships, and why, though they were so far in advance of human science, they apparently knew nothing of many of our most useful and important every day matters and inventions.

It came about in this way.

I was seated upon the shores of the lake and gazing across its broad and tranquil surface towards the dim and distant mountain ranges. Sailor-like my mind turned to boats. What a pleasure it would be, I thought, to have some good craft in which to sail those waters, to go where I willed and to explore the shores. I had traveled much in the beings' airships, but I could not handle the contraptions and I longed for the feel of a keel under my feet. And why shouldn't my desires be satisfied? To be sure, I knew that to secure wood to build a boat was out of the question; but there was the metal sulphur. This could be made in thin sheets and a metal boat could be constructed. But then, I thought, how would I manage to make the creatures understand what I wanted? And even if I did could they bend and form and rivet the plates? Then a brilliant idea came to me. Why shouldn't the boat be fashioned of one single piece, moulded or cast into form? It could be. And thus made it would be stronger and better in every way than if built up of plates. Strange that I had not thought of it sooner. The airships' hulls were thus formed and I had only to make a model of the craft I wished in order to have the creatures turn out a seamless metal boat of incredible lightness and strength. For a time, however, even the simple matter of the model puzzled me until it occurred to me to make this from a very thin sheet of metal which, after considerable trouble, I pounded and bent into the desired shape.

The result of my work, and my efforts to make

the artizans grasp my ideas, was a boat about eighteen feet in length and five feet beam drawing about three feet aft. I cannot say the lines of the craft were beautiful and I had no expectation of finding her speedy, but she was staunch and buoyant and I thoroughly enjoyed fitting her up. Metal tubes were used for mast and spars, twisted fibre or yarns of the same material as the beings used for their textiles formed ropes and lines, and the sails were made of the same fabric. All the time I was working the creatures regarded my labors with intense interest, though at an entire loss to know what I was about. But of all things the tackle and blocks seemed to fascinate them the most. And when at last my craft was ready and I hoisted sails, and grasping the tiller, trimmed the sheets and sped off with a fresh breeze, the creatures went almost mad with excitement. Here, indeed, was a strange condition of affairs. Beings who had gone far beyond man's dreams in accomplishments, who had conquered the air and yet knew nothing of boats or of sails and had never even seen blocks and tackle.

Of my cruises in the craft I need say little. In her I navigated the chain of great lakes or inland seas, visiting out of the way spots and landing on the very place where I had first thrown myself upon the beach to drink the water after my terrible journey. Here I again attempted to scale the mountains as have already mentioned. But either the climate or the air had affected me, for before I had ascended half way to the summits of the ridge I was utterly spent and was forced to retrace my steps. This was a great blow to me for I had hoped that sooner or later I would be able to make my way back over the mountains to the Antarctic and that I thus might rejoin my fellow men. The perils I knew were terrible and there was not one chance in a million of my succeeding, but even this slim chance was I felt better than to remain forever among the weird beings. Even when I found it impossible I was not utterly discouraged. Possibly, I thought, there might be lower spots in the mountain range, but in the end I found that the country was completely girded by towering mountains and that the spot where I had crossed was the only point where such a crossing had been possible. But all this is apart from what I was about to set down. On my explorations, however, I found that which had a direct bearing upon my discovery as to why most simple mechanical devices were unknown to the creatures. In one spot I discovered a vast deposit of coal, in another quantities of copper, and I also found iron, silver, gold and many other metals and minerals. Oddly enough, too, the ores seemed to have been mined, for there were yawning openings filled with debris which appeared to be old shafts and tunnels, and yet I knew the beings used none of the metals nor coal. But the discovery of the latter started a new train of thought in my mind. Could I not equip my craft with power and thus be able to cruise about more rapidly and without being dependent upon the wind? Of course I might have induced the creatures to supply me with the strange invisible power they utilized, but somehow, I longed for familiar things, for devices with which I was acquainted, and I cannot hope to express the great comfort and happiness I found in my little

boat. Moreover, I felt the necessity of keeping hands and mind busy and so I at once decided to try my mechanical skill at designing and building a small steam engine. Of course my knowledge of machinery was limited, but I knew the principles of steam and steam engines, and after weeks of weary work and innumerable disappointments I managed to turn out a crude sort of affair which actually worked. To be sure it was far too cumbersome and heavy, not to mention its small power, for my craft, but once having mastered the affair I felt that a second attempt would prove far easier and more satisfactory than the first.

But the creatures, who had watched every step of the work, showed indescribable excitement as the smoke rose from the funnel and the steam hissed and the fly wheel revolved. From far and near they flocked, more excited than I had ever seen them, and I realized how Watt or Fulton or other great inventors must have felt when at last they proved that their theories were right and had demonstrated to a wondering multitude that steam could be harnessed and made to serve man.

And then came an astounding discovery. The rulers wished to take possession of my crude engine; not to operate it, but to place it in a special building, a sort of museum as I might say, as a prized treasure. This was, I considered, not unnatural, but when one of the historians—he who held the most ancient records of the race,—explained that in the dim history of the past the beings had made and used such things, I was absolutely dumbfounded. No one, he informed me, had ever seen the machines; they were merely tradition and were considered fabulous, and all unwittingly I had materialized something which by them was regarded very much as we regarded relics of the Pharaohs or of our prehistoric ancestors. Then the living volume of the nation's history went on to explain that legendary lore had it that the creatures' ancient forebears had possessed many other strange and unknown devices and I was asked if I could not also make some of these as fellow exhibits in the historical museum.

Here then I found myself suddenly transformed from a great inventor, proud of exhibiting my superior knowledge and mechanical ability, to a primitive being, a being out of the dim past, a member of a race whose greatest achievements had been known, used and discarded by these super-crustaceans so long ago that even history held no actual records of them. It was a great shock to my pride, but I was quite willing to busy myself at any work that would keep me occupied, even if it went only to prove how far behind the times I was, and soon I became vastly interested in the work and, by my efforts, reconstructing the forgotten past for the strange beings.

Among the first things that I built was a cart, and this amazed the creatures even more than the engine. To them wheels were most marvelous things, akin, I should say from their actions, to magic or witchcraft, and I racked my brains to puzzle out how it was that the wheel, which I had always considered man's most important mechanical invention, should have been discarded and forgotten by the lobster-like beings. Man cannot get on without the wheel. It is the foundation, the basis, of

all industry, all machinery, all our most wonderful accomplishments. And yet, here was a nation of highly intelligent creatures, a race which had advanced immeasurably beyond humans in annihilating space and time, beings who had tapped the very source of nature's storehouse of power and who had made marvelous discoveries and never used a wheel in any form. To them the wheel was as obsolete and as useless as a stone axe or a flint knife to us, but instantly, as they saw wheels, they became fascinated with their uses and possibilities. Not that they were of any real benefit in their lives or occupations, but merely because they were strange, antique curiosities which afforded the beings new amusements and sports. Soon, carts or wagons were everywhere, and being most adaptable creatures, the inhabitants were not long in fitting the vehicles with power receivers and were rattling and bumping about in crude motor cars, or rather motor wagons, as pleased as a lot of kids with new toys.

I could not help thinking how this same power applied to modern automobiles would revolutionize motor cars in our world, and I fell to work with a will striving to construct some sort of car which would be an improvement over the solid wheeled, uncomfortable things the creatures were using. I cannot say that the result of my labors and inventive powers would have been a worthy rival even of a tin Lizzie, but it had a greater vogue among the beings than even Ford's famous product had among humans, and motoring became the favorite sport of the entire country. Incredibly swift airships were abandoned, save for utility and business, and just as we human beings—or a large number of us—prefer sail boats or rowing, or even the primitive savage canoe, to the steam or power boat when it comes to recreation, or choose a slow-going horse and carriage rather than a railway train or a motor car for pleasure, so they preferred the crude vehicles bumping over the earth to the silent, smooth sailing, meteor-like airships. I cannot describe, cannot hope to give a picture of the ridiculous, grotesque appearance the creatures presented in their new toys. And accidents were innumerable. Indeed, I believe it is the danger, the risk in using land vehicles, that appeals most strongly to the creatures. They seem to delight in collisions, in broken limbs, and are reckless beyond words. No doubt the dangers are a relief, for their airships are so constructed that accidents are next to impossible and collisions cannot occur, for there are devices which operate in such a way that if two ships come dangerously close the mechanisms automatically operate to repel each other.

Few fatalities have, however, resulted from the use of wheeled vehicles, but beings lacking one or more appendages or even antennae are seen everywhere. And they are marvelously expert in avoiding mishaps by a hair's breadth. Never have I seen such mad driving and the worst traffic jams of New York's thoroughfares are nothing compared with the congestion here in this metropolis of this strange land. And the wheels are used for many other amusements too. There are contraptions for which I am responsible which might be called bicycles, and hoop-rolling is a sport over which the be-

ings grow as excited and become as interested as human beings over golf or tennis.

And of course, having seen the wonderful results of my efforts and my, to them, prehistoric knowledge, I tried my hand at a thousand and one other matters. Bows and arrows were most astounding things to these beings, and you can imagine my amazement when, not content with using a single bow, these weird creatures armed themselves with three bows at once and discharged a perfect hail of arrows at the targets. What warriors they would make, I thought. What unconquerable foes, with their ten appendages or limbs, eight of which could be used for handling weapons. Each in fact would equal eight men in one, and for the first time it dawned upon me that herein was largely the secret of their great achievements, that they had been able to accomplish eight times as much work as humans, and I wondered what the results would have been had Edison, Ford, Marconi or any of our great inventors and geniuses been equipped by nature to do eight times the work they have done.

Their aptitude with such primitive weapons as bows and arrows aroused my interest as to what they would do with firearms, and I bent my energies and inventive powers to the task of making such things. There was an abundance of sulphur, of course, saltpeter was to be had and charcoal was not an impossibility, but it was a long time before I succeeded in making a mixture that would do more than sputter and burn. But at last I had an apology for gunpowder and the rest was simple. I had a small cannon made, and having loaded it and placed a sheet metal target before it, I touched it off. My powder was poor, slow burning stuff, but it served to throw the ball and made a respectable detonation, but I was greatly disappointed at the effect upon the assembled creatures who had gathered to watch the demonstration. The noise and smoke did not surprise them in the least, but I might have foreseen this as they possessed an explosive far more powerful than powder or even dynamite. In fact it was altogether too powerful for use in firearms, as I discovered with almost fatal results to myself long before I tried my hand at powder making. They examined the ragged hole torn by the missile in the metal target and they showed some interest in this, but their greatest wonder appeared to be that an explosive capable of doing so much should have been confined in the metal barrel of the gun. Aside from this, however, the whole experiment failed to appeal to them. They had no use for such things as guns and powder, no need of offensive or defensive weapons, and their own explosive was a thousand times more valuable than powder for their purposes.

And scores of other things which I made, after endless failures and by dint of hardest work, were as useless to them as the cannon. And then at last it came to me that in this strange place man's greatest inventions, human beings' most marvelous labor-saving devices and our most prized luxuries and conveniences had no place. That here was a race or nation of beings where there was no struggle for supremacy, no real industry for personal gain, no riches, no poverty, no competition; that conditions, life, everything, were totally unlike those of my world and that these creatures, ages before my ar-

rival, had passed the stage of human civilization and that to them our customs, habits and mode of life would appear as barbarous and primitive as those of the prehistoric cave dwellers to us.

There is no agriculture, so no demand for agricultural machinery. No vast transportation of foodstuffs and raw materials, for with power wherever required and food and all things needed—with the exception of sulphur—available anywhere, there is little to be carried and airships are all that are required. All resources are equally at the disposal of every member of the community and hence there is no struggle for existence or for wealth, and as every member of the nation is developed, trained and predestined, from the day of hatching, for some definite place in life, there is no ambition, no desire for advancement. In short these beings are mere automatons, machines endowed with life, intelligence and minds, and nothing more. They only differ from insensate mechanisms inasmuch as they have their times for rest and recreation, and I daily thank God that human beings have not yet come to such a pass.

Often, when among my fellow men, I have heard arguments and have read articles in favor of a communistic or socialistic life and government, and picturing the ideal Utopia that the earth would be if men could all be equal, if all wealth could be equally divided and there could be no class distinctions, no struggle for supremacy. Often, too, I have in the past felt that such a state would be desirable, and many a time, when fortune frowned upon me and I compared my lot as a sailor with the ease and luxury of wealthy passengers upon my ships, or with the rich ship owners, I have felt bitterness that some should be so favored and others forced to struggle through life in poverty. But now I realize what dire results would follow were these socialists' ideas fulfilled. Now I realize that there could be no ambition, no desire for betterment, no real happiness in life and no pride if such conditions prevailed. No, a thousand times no. Better dire poverty, unending toil, the abuses and vices, the wars and strife, all the wrongs and woes of mankind and civilization than to become the heartless, impersonal beings that such conditions would lead to. What would the world of men be without love, sentiment, art, music, affection, ambition? What would it be if the human race had no ideals beyond existence and the propagation of the species? What would it be if there was nothing to spur men on, to send them to sleep weary with the day's work but filled with dreams and visions of accomplishments on the morrow; to awaken them filled with determination to succeed, to force their way to the top? What would life amount to if men had no aims, no ideals in life, no necessity to exert themselves, to prove superiority to their fellows, to force their individuality upon the world and to choose their path in life and to be independent, free, leading their own lives as they see fit and with no limit, save their own intelligences and their labors, to what they may accomplish?

It is this, this supposed idealistic sort of life of these beings that made me so heartily sick of my existence among them. Would that those who have found such fault with our civilization, who have endeavored to revolutionize human life and human

ways, and to upset conditions that the Almighty in His infinite wisdom has established, might be here with me. Would that those socialistic agitators might be forced to exist here among these creatures.

Anything rather than this state of affairs. At times it seems as if I should go mad, and I find myself longing for something, anything, to upset this machine-like monotonous life about me. Anger, strife, battle—aye, even a war with all its horrors would be welcome.

## CHAPTER VIII

**A** LONG time has passed since I penned my lines. And now I know that beyond question I am doomed to spend all my days among these weird beings. Over and over again I have attempted to find a way out, to discover a means of scaling the mountains, for desperation drove me, and death upon the ice-covered wastes of the polar regions seemed preferable to life here. But though strong, healthy and as able-bodied as ever, yet, for some strange reason, I could not climb those cliffs. Perhaps it is the food or drink that has robbed me of the power to ascend even to moderate heights, perchance dwelling in this air with its unending blue light has had its effect, and like the creatures who dwell here, I cannot live where once I felt no ill effects. But whatever the reason, the fact remains that each time I have reached a height of a few hundred feet, my muscles have failed me, my strength has given out, and I have been forced to give up. I am as hopelessly caged here as though in a prison and yet the birds come and go at will and I envy them beyond words to express, as I watch the broad-winged albatrosses and great white molly-mokes and screeching gulls and know on their pinions they can rise above the surrounding mountains and leave this side of the world for the other that I shall never see again; that no doubt they gaze upon my fellow men, upon the wide blue sea, and upon white sailed ships and great palatial steamships with the same expressionless eyes they turn upon me and upon the beings dwelling here in this undreamed-of land.

To one of these free winged creatures, these friends of old who come over the edge of the world each year, I shall soon entrust this narrative. Perchance it may never reach a human being. The bird may meet with disaster or it may never look on a civilized man. Or again, even though scores, hundreds, of my fellow men see the creatures, yet it may pass unnoticed and the message may not be read. But there is a chance that, with the metal cylinder, in which I shall place my story, dangling from its leg, the albatross will attract the attention of some one. Perhaps its nesting ground may be near some party of whalers, or even near a settlement, and it is this chance I cling to. I have no fear that the cylinder will become detached or even broken, despite the rough treatment it will no doubt receive, and even if the bird is not found or the cylinder discovered for years, it and its contents will be intact. I have selected the toughest and hardest of the many varieties of metal for the cylinder, a metal which is far harder than steel and which can be opened or broken only by tremendous force or by a heat greater than fire, and I have used a trans-

parent grade of the metal in order that any one finding it may see that it contains a manuscript, for I well know how curious human beings are to read any scrap of writing that is picked up in a floating or stranded bottle. The cylinder being air tight will preserve the manuscript, and the writing is done with a fluid I found among the waste or by-products of the sulphur factory. It is indelible and will not fade, while the cord by which I shall attach the cylinder to my bird messenger is of the toughest woven metal and cannot be severed by any ordinary means.

And what if my narrative is found and read? Will any mortal man believe it? Will the finder, if finder there be, credit such a story as will be disclosed? No, I suppose not. It is too incredible, too ridiculous to pass as anything more than fiction or the ramblings of a disordered mind. They will think the writer crazy, a madman who has been set down the delusions of his brain, or will think some one is trying to perpetrate a gigantic hoax.

But again, perhaps, if God wills, my narrative may fall into the hands of some person who will be attracted by the strangeness of its container. The transparent metal cylinder will perhaps arouse curiosity, the material on which it is written may give credence to my tale. And if so, then will it be known beyond a doubt that it is no wild fancy, no product of a crazy man; for nowhere in the world of men are such materials known. Often I smile to myself to think what a sensation will be created when the newspapers print accounts of the discovery of the strange manuscript in a still more remarkable container. No doubt, in that case, my story will be read by thousands, perhaps millions of my fellow men. And yet, the cylinder in which I send it may prove of greater interest and value to the world than my story. I can picture the scientists' excitement as they analyze the metal and discussions grow hot as to its origin, while inventors strive to produce the same material for the benefit of mankind.

Such thoughts are a diversion and a comfort to me, and many hours I spend trying to picture in my mind the results of my story and its effect upon the world in case it ever reaches civilized men.

But I must cut short my imaginings, my hopes and fears, for it is all aside from my tale and I must confine myself to the story of my life here on this unknown, mountain-walled continent among these weird beings.

\* \* \*

Since I last took up my manuscript to write, many events have occurred, but that which is of greatest importance, though the creatures here make little of it, is the escape of the captive ants from the zoo wherein they were confined.

To me there is something threatening in this, and I cannot rid myself of a feeling of a dire calamity impending. Always I had been fascinated by the gigantic insects, and hours after hours I have spent, watching them as they labored and rushed about, drilling, carrying on strange evolutions, marching and countermarching, seemingly aimlessly, within their fenced enclosure.

That they could escape, no one dreamed; for as I have said, they were hedged in by network of material fatal to them. But escape they did, and not

an ant remains within the pen nor was there a dead ant to tell of the insects having touched the death dealing netting. No, they had been far too intelligent for that, and their apparently aimless labors had been but a clever ruse, a means of concealing their true purpose of tunnelling to great depths and, by means of an unsuspected subterranean passage, vanishing, no one knows where. And I feel sure that their constant drilling, their military-like actions, were no more purposeless than their work. To be sure they are few—not more than two hundred at most—and the inhabitants have no fears. They assure me that the ants will soon be recaptured, that in airships these beings can locate the fugitives and either take or destroy them, and that, even if such means fail, the ants may be destroyed by scattering the deadly compound about their haunts and by preventing them from securing food.

Moreover, they point out, the ants are few and are no menace unless in vast numbers, and that long before they can increase enough to be dangerous they will again be under control.

But I cannot put aside my fears, my premonitions. Who can say where the ants have gone? Who can say what their numbers may be? For all anyone knows they may have been increasing by thousands beneath the earth, may have been waiting for months or years until they had reared a horde of their kind in the dark, unseen passages underground. And their strength, activity and tirelessness, are prodigious. One of the great insects has the strength of a score of men or the muscular powers of several giant lobster-like beings. And they multiply with amazing rapidity. Even now they may number countless thousands, may be biding their time in some hidden subterranean lair, storing food, making plans, drilling; only waiting for the time when they will be ready and prepared to overwhelm the country with their armies. And the strangest part of it is that such thoughts should trouble me. Why should it matter to me whether these lobster-like beings or the giant ants are in supremacy? Why should I care what takes place in this country in which I have no interest and which I have grown to hate and detest? It is not fear of personal injuries or death, but I shudder at the thought of being made captive or being destroyed by the ants, for death I feel, might prove better than a life among these creatures. I have tried to analyze my feelings, to fathom the cause of my worries and, though it sounds ridiculous, though even to me it seems impossible, yet I feel sure that it is due to a sense of patriotism.

Patriotism for a land that is my prison, for a race of beings with whom I have nothing in common! And yet it is so. Although I chafe at my enforced life here, although I long to be away from the country and its denizens, although their life, ways and personalities are all repugnant to me, yet such a strange thing is the human mind that I feel as greatly concerned over the impending danger as if these beings were of my own race and it was my own country.

Yes, and if it comes to battle, to a war between the ants and these supercrustaceans, I know in my heart that I shall find myself battling against the ants, using my every effort to aid these monstrous beings in overthrowing their hereditary enemies.

Little did I dream, when I wrote, months ago, that even war would be welcome, how soon my words were to be borne out, for war, bloody, merciless, relentless and horrible beyond words to express is, I feel sure, near at hand.

\* \* \*

A month or more has passed since last I wrote, and, during that interval events have moved rapidly. The ants have been discovered. Scouts have found them, and my worst fears have been more than fulfilled. In incalculable thousands they are swarming on a vast uninhabited area in the north, drilling, gathering vast stores and evidently preparing for a campaign. And yet these beings are not disturbed, have no fears and have made little effort to repel or destroy their enemies. From airships quantities of the death dealing chemicals were dropped upon the ants but with little result. A few were killed but instantly the alarm was given the ants vanished like magic, seeking safe refuge in subterranean burrows. I have urged these creatures to set forth and attack, to take the offensive against the ants, to drop explosives from airships and thus shatter the burrows and destroy the occupants. And I have sought to induce them to surround themselves with barriers of the ant poison. But my words have been unheeded so far. So long have these creatures lived in peace, so long have they been in complete control, and so many years have passed since they battled with the ants that they have forgotten the terrible power and resources of their enemies and underrate them. Too late, I fear, will they awaken.

But I have not been idle. With the aid of a few who have given ear to my advice I have taken what steps we can to protect the city. We have laid mines about it which can be exploded, and in two airships we have attempted to destroy the ants' retreats with explosive, but our puny efforts have been of little avail. Moreover, in our last assault, one of the airships was disabled by a premature explosion and fell to earth, and I shudder as I write when I think of the awful scene I witnessed when the ants rushed upon the occupants of the airship and with ravenous jaws tore them in pieces while still alive.

And if the ants are victorious that will be the fate of all, yes even of myself. But I have no mind to meet with such a fearful death. I have provisioned my boat and if worst comes to worst I shall flee in her. Across the water the ants cannot follow and miles distant I know of a large island where I shall seek safety—there to pass the remaining days of my life alone.

A week since I wrote those last lines. The ants are advancing now. Already they have overwhelmed two outlying towns and against them the poison and even the explosives seem useless. Slowly but inexorably they come, making their way by underground passages, scurrying to safe retreats far under the earth at first sight of an airship. It is terrible, nightmarish, this invisible, silent advance of the vast hordes of terrible creatures, and the inhabitants are now terror stricken.

Barriers of the poison have been passed by the ants tunnelling beneath them; hundreds of the inhabitants of the countryside have fallen victims to the relentless insects, and each day their numbers

increase and they draw nearer to this metropolis.

They are within a few miles of the power plant and at any moment may take possession of the sulphur mines. And then the doom of the beings will be sealed. Without resources, without power, all will be helpless, doomed to perish miserably or become prisoners of the ants. And there is no retreat. The insects have overrun the land, have thrown out great encircling armies and our scouts report them on every side

And now a new and more terrible thing has occurred. The ants are swarming. Their queens, winged and capable of flight, are filling the air, darkening the skies and dropping here, there, everywhere to establish new colonies. Hundreds of them have even dropped within the city and although they have been destroyed yet their numbers seem undiminished. Unseen, they drop at night, hurrying to hidden spots they deposit their eggs, and ere their presence is suspected the warriors have emerged and fall upon the surprised inhabitants and tear them to bits. In their extremity the creatures have besought me to equip them with bows and arrows, guns, anything in the form of weapons. And these have helped. With their arrows, with the bullets from the crude firearms, they have managed to keep the ant army in check, for these are things new to the ants and they have no means of resisting them. Desperate as our case is, yet I have smiled to think how history repeats itself, how these beings have been forced to resort to prehistoric, primitive means to preserve their homes and lives, just as the armies of Europe, despite modern weapons high explosives, poisonous gasses and every latest scientific device, were forced to resort to armor, grenades, mediæval weapons and methods to combat the Germans.

And even the wagons, the motor vehicles, have been brought into play against the ants, for the airships are next to useless. Let an airship rise aloft and the swarming queen ants light upon it by hundreds and bear it to earth with their weight, but the wheeled vehicles, protected, transformed to miniature forts of metal and filled with armed beings, carry terror and destruction among the ants, crushing them beneath the wheels while arrows and bullets strike them down.

But despite all I feel that we are losing, that our efforts have been made too late and that at any moment the horde of insects will overwhelm the power plant and we will be incapable of making food, of producing light, of manufacturing anything, even of operating our vehicles. Long have I foreseen this and in preparation for the calamity I have had steam engines built, but these are all too few to serve all our wants. Would that these beings had but given heed to my words long ago and then all might have been well. Too long they waited and then panic stricken turned to me begging me to take charge, beseeching me to save them. The fate of the country, of the inhabitants depends upon me but I feel that no human efforts, nothing that these beings under my directions can accomplish, will do more than delay the end.

\* \* \*

What I dreaded most has befallen. The ants are in possession of the power plant. Everything is at a standstill. Only the barest necessities of life can be



produced with the puny, limited power of my machines, the ancient antiquated mechanisms discarded ages ago by these beings, but what now, when all their marvelous inventions have failed them, are proving their salvation, their one hope.

And it is but a forlorn hope. We are besieged encompassed, surrounded, and each day the encircling cordon is drawing irresistibly nearer.

I fear even to wait longer to entrust this manuscript to a bird. If I wait it may be too late, so tomorrow I shall enclose it in a metal cylinder and shall lash it to the leg of a great albatross I have captured.

And I am ready to flee, to take to my boat. Each day, each hour, the inhabitants are deserting the city. They are taking to the water, are reverting to the habits of their long forgotten ancestors, are becoming crustaceans once more, and forgetting all their great works, all their civilization, all their evolved mentalities, are seeking the depths of the lake and reverting to a submarine life. Perchance ere the city falls all the beings will have forsaken

the life they have led for generations, and in the water and the slime beneath it, will have found safety and there will forget all and will degenerate to the lobsters from which they rose. 'Tis a strange, a bizarre thought, but man, in time of dire extremity, when overwhelmed and destroyed, has more than once reverted to savagery and every great nation has fallen, so perhaps 'tis but the law of nature, the working out of God's plan—.

I am about to close, to seal my manuscript to send it out to the world, and I must make haste. Scarcely a dozen of the inhabitants are left. All but these have deserted. Within the hour the ants will overwhelm the city. I must hurry to my boat and escape ere it is too late.

Yes, even now they are coming. They are in the outskirts. Their hordes will cut off my retreat if I do not close at once. It is the end. My narrative must be sealed and entrusted to the albatross which for many weeks I have held captive and awaiting this time. God grant that it may reach the hand of some fellow man."

## THE END

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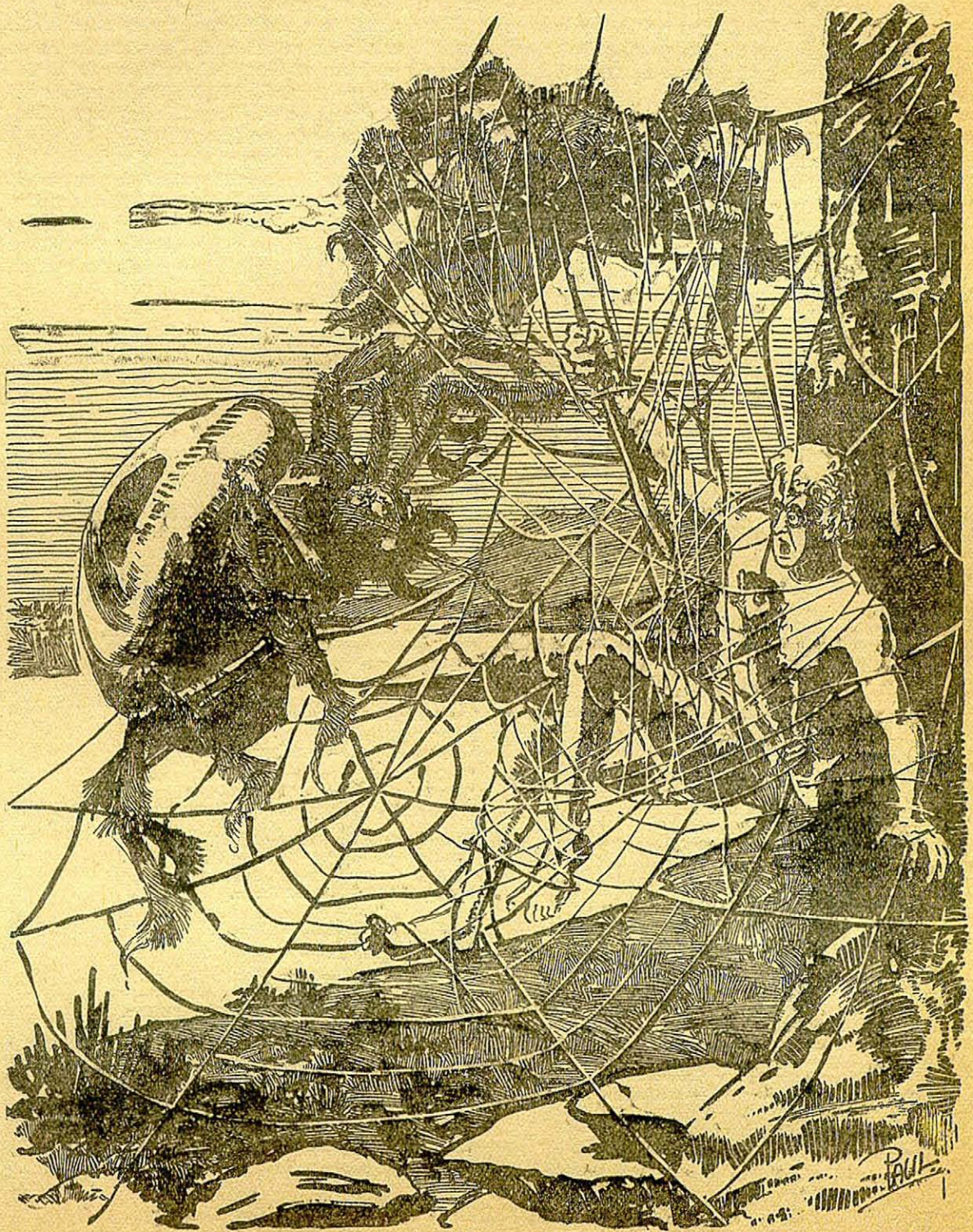
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# The MAD PLANET

By Murray Leinster

Author of "The Runaway Skyscraper."



Burl screamed again, and thrust out his arms to ward off the impact of the tarantula's leap. . . . The spear-point shot out and the tarantula fell upon it. Nearly a quarter of the spear entered the body of the ferocious thing.

## CHAPTER I.

## The World Insane

IN all his lifetime of perhaps twenty years, it had never occurred to Burl to wonder what his grandfather had thought about his surroundings. The grandfather had come to an untimely end in a rather unpleasant fashion which Burl remembered vaguely as a succession of screams coming more and more faintly to his ears while he was being carried away at the top speed of which his mother was capable.

Burl had rarely or never thought of the old gentleman since. Surely he had never wondered in the abstract of what his great-grandfather thought, and most surely of all, there never entered his head such a purely hypothetical question as the one of what his many-times-great-grandfather—say of the year 1920—would have thought of the scene in which Burl found himself.

He was treading cautiously over a brownish carpet of fungus growth, creeping furtively toward the stream which he knew by the generic title of "water." It was the only water he knew. Towering far above his head, three man-heights high, great toadstools hid the grayish sky from his sight. Clinging to the foot-thick stalks of the toadstools were still other fungi, parasites upon the growths that had once been parasites themselves.

Burl himself was a slender young man wearing a single garment twisted about his waist, made from the wing-fabric of a great moth, the members of his tribe had slain as it emerged from its cocoon. His skin was fair, without a trace of sunburn. In all his lifetime he had never seen the sun, though the sky was rarely hidden from view save by the giant fungi which, with monster cabbages, were the only growing things he knew. Clouds usually spread overhead, and when they did not, the perpetual haze made the sun but an indefinitely brighter part of the sky, never a sharply edged ball of fire. Fantastic mosses, misshapen fungus growths, colossal molds and yeasts, were the essential parts of the landscape through which he moved.

Once as he had dodged through the forest of huge toadstools, his shoulder touched a cream-colored stalk, giving the whole fungus a tiny shock. Instantly, from the umbrella-like mass of pulp overhead, a fine and impalpable powder fell upon him like snow. It was the season when the toadstools sent out their spores, or seeds, and they had been dropped upon him at the first sign of disturbance.

Furtive as he was, he paused to brush them from his head and hair. They were deadly poison, as he knew well.

Burl would have been a curious sight to a man of the twentieth century. His skin was pink like that of a child, and there was but little hair upon

his body. Even that on top of his head was soft and downy. His chest was larger than his forefathers' had been, and his ears seemed almost capable of independent movement, to catch threatening sounds from any direction. His eyes, large and blue, possessed pupils which could dilate to extreme size, allowing him to see in almost complete darkness.

He was the result of the thirty thousand years' attempt of the human race to adapt itself to the change that had begun in the latter half of the twentieth century.

At about that time, civilization had been high, and apparently secure. Mankind had reached a permanent agreement within itself, and all men had equal opportunities to education and leisure. Machinery did most of the labor of the world, and men were only required to supervise its operation. All men were well-fed, all men were well-educated, and it seemed that until the end of time the earth would be the abode of a community of comfortable human beings, pursuing their studies and diversions, their illusions and their truths. Peace, quietness, privacy, freedom were universal.

Then, just when men were congratulating themselves that the Golden Age had come again, it was observed that the planet seemed ill at ease. Fissures opened slowly in the crust, and carbonic acid gas—the carbon dioxide of chemists—began to pour out into the atmosphere. That gas had long been known to be present in the air, and was considered necessary to plant life. Most of the plants of the world took the gas and absorbed its carbon into themselves, releasing the oxygen for use again.

Scientists had calculated that a great deal of the earth's increased fertility was due to the larger quantities of carbon dioxide released by the activities

of man in burning his coal and petroleum. Because of those views, for some years no great alarm was caused by the continuous exhalation from the world's interior.

Constantly, however, the volume increased. New fissures constantly opened, each one adding a new source of carbon dioxide, and each one pouring into the already laden atmosphere more of the gas—beneficent in small quantities, but as the world learned, deadly in large ones.

The percentage of the heavy, vapor-like gas increased. The whole body of the air became heavier through its admixture. It absorbed more moisture and became more humid. Rainfall increased. Climates grew warmer. Vegetation became more luxuriant—but the air gradually became less exhilarating.

Soon the health of mankind began to be affected. Accustomed through long ages to breath air rich in oxygen and poor in carbon dioxide, men suffered. Only those who lived on high plateaus or on tall mountain-tops remained unaffected. The plants of the earth, though nourished and increasing in size

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*WE recently published a charming tale by the author of this story, entitled "The Runaway Skyscraper." Great as was that story, this one is even greater. The possibility that our planet will some day be dominated by the insect world has been admitted by our greatest entomologists, and the possibility of this is not half so remote as one might think.*

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*It is a story tremendous in its possibilities, and the author has written it with such a facile pen, that you cannot lay the story aside until you have come to its conclusion.*

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beyond those ever seen before, were unable to dispose of the continually increasing flood of carbon dioxide exhaled by the weary planet.

By the middle of the twenty-first century it was generally recognized that a new carboniferous period was about to come when the earth's atmosphere would be thick and humid, unbreathable by man, when giant grasses and ferns would form the only vegetation.

When the twenty-first century drew to a close the whole human race began to revert to conditions closely approximating savagery. The lowlands were unbearable. Thick jungles of rank growth covered the ground. The air was depressing and enervating. Men could live there, but it was a sickly, fever-ridden existence. The whole population of the earth desired the high lands, and as the low country became more unbearable, men forgot their two centuries of peace.

They fought destructively, each for a bit of land where he might live and breathe. Then men began to die, men who had persisted in remaining near sea-level. They could not live in the poisonous air. The danger zone crept up as the earth-fissures tirelessly poured out their steady streams of foul gas. Soon men could not live within five hundred feet of sea-level. The lowlands went uncultivated, and became jungles of a thickness comparable only to those of the first carboniferous period.

Then men died of sheer inanition at a thousand feet. The plateaus and mountain-tops were crowded with folk struggling for a foothold and food beyond the invisible menace that crept up, and up—

These things did not take place in one year, or in ten. Not in one generation, but in several. Between the time when the chemists of the International Geophysical Institute announced that the proportion of carbon dioxide in the air had increased from .04 per cent to .1 per cent and the time when at sea-level six per cent of the atmosphere was the deadly gas, more than two hundred years intervened.

Coming gradually, as it did, the poisonous effects of the deadly stuff increased with insidious slowness. First the lassitude, then the heaviness of brain, then the weakness of body. Mankind ceased to grow in numbers. After a long period, the race had fallen to a fraction of its former size. There was room in plenty on the mountain-tops—but the danger-level continued to creep up.

There was but one solution. The human body would have to inure itself to the poison, or it was doomed to extinction. It finally developed a toleration for the gas that had wiped out race after race and nation after nation, but at a terrible cost. Lungs increased in size to secure the oxygen on which life depended, but the poison, inhaled at every breath, left the few survivors sickly and filled with a perpetual weariness. Their minds lacked the energy to cope with new problems or transmit the knowledge they possessed.

And after thirty thousand years, Burl, a direct descendant of the first president of the Universal Republic, crept through a forest of toadstools and fungus growths. He was ignorant of fire, of metals,

of the uses of stone and wood. A single garment was worn by him. His language was a scanty group of a few hundred labial sounds, conveying no abstractions and few concrete ideas.

He was ignorant of the uses of wood. There was no wood in the scanty territory furtively inhabited by his tribe. With the increase in heat and humidity the trees had begun to die out. Those of northern climes went first, the oaks, the cedars, the maples. Then the pines—the beeches went early—the cypresses, and finally even the forests of the jungles vanished. Only grasses and reeds, bamboos and their kin, were able to flourish in the new, steaming atmosphere. The thick jungles gave place to dense thickets of grasses and ferns, now become tree-ferns again.

And then the fungi took their place. Flourishing as never before, flourishing on a planet of torrid heat and perpetual miasma, on whose surface the sun never shone directly because of an ever-thickening bank of clouds that hung sullenly overhead, the fungi sprang up. About the dank pools that festered over the surface of the earth, fungus growths began to cluster. Of every imaginable shade and color, of all monstrous forms and malignant purposes, of huge size and flabby volume, they spread over the land.

The grasses and ferns gave place to them. Squat toadstools, flaking molds, evil-smelling yeasts, vast mounds of fungi inextricably mingled as to species, but growing, forever growing and exhaling an odor of dark places.

The strange growths now grouped themselves in forests, horrible travesties on the vegetation they had succeeded. They grew and grew with feverish intensity beneath a clouded or a haze-obscured sky, while above them fluttered gigantic butterflies and huge moths, sipping daintily of their corruption.

The insects alone of all the animal world above water, were able to endure the change. They multiplied exceedingly, and enlarged themselves in the thickened air. The solitary vegetation—as distinct from fungus growths—that had survived was now a degenerate form of the cabbages that had once fed peasants. On those rank, colossal masses of foliage, the stolid grubs and caterpillars ate themselves to maturity, then swung below in strong cocoons to sleep the sleep of metamorphosis from which they emerged to spread their wings and fly.

The tiniest butterflies of former days had increased their span until their gaily colored wings should be described in terms of feet, while the larger emperor moths extended their purple sails to a breadth of yards upon yards. Burl himself would have been dwarfed beneath the overshadowing fabric of their wings.

It was fortunate that they, the largest flying creatures, were harmless or nearly so. Burl's fellow tribesmen sometimes came upon a cocoon just about to open, and waited patiently beside it until the beautiful creature within broke through its matted shell and came out into the sunlight.

Then, before it had gathered energy from the air, and before its wings had swelled to strength and firmness, the tribesmen fell upon it, tearing the

filmy, delicate wings from its body and the limbs from its carcass. Then, when it lay helpless before them, they carried away the juicy, meat-filled limbs to be eaten, leaving the still living body to stare helplessly at this strange world through its many-faceted eyes and become a prey to the voracious ants who would soon clamber upon it, and carry it away in tiny fragments to their underground city.

Not all the insect world was so helpless or so unthreatening. Burl knew of wasps almost the length of his own body who possessed stings that were instantly fatal. To every species of wasp, however, some other insect is predestined prey, and the furtive members of Burl's tribe feared them but little, as they sought only the prey to which their instinct led them.

Bees were similarly aloof. They were hard put to it for existence, those bees. Few flowers bloomed, and they were reduced to expedients once considered signs of degeneracy in their race. They gathered bubbling yeasts and fouler things, occasionally from the nectarless blooms of the rank, giant cabbages. Burl knew the bees. They droned over, nearly as large as he was himself, their bulging eyes gazing at him with abstracted preoccupation. And crickets, and beetles, and spiders—

Burl knew spiders! His grandfather had been the prey of one of the hunting tarantulas, which had leaped with incredible ferocity from his excavated tunnel in the earth. A vertical pit in the ground, two feet in diameter, went down for twenty feet. At the bottom of that lair the black-bellied monster waited for the tiny sounds that would warn him of prey approaching his hiding-place. (*Lycosa fasciata*).

Burl's grandfather had been careless, and the terrible shrieks he uttered as the horrible monster darted from the pit and seized him had lingered vaguely in Burl's mind ever since. Burl had seen, too, the monster webs of another species of spider, and watched from a safe distance as the misshapen body of the huge creature sucked the juices from a three-foot cricket that had become entangled in its trap.

Burl had remembered the strange stripes of yellow and black and silver that crossed upon its abdomen. (*Epiera fasciata*). He had been fascinated by the struggles of the imprisoned insect, coiled in a hopeless tangle of sticky, gummy ropes the thickness of Burl's finger, cast about its body before the spider made any attempt to approach.

Burl knew these dangers. They were a part of his life. It was his accustomedness to them, and that of his ancestors, that made his existence possible. He was able to evade them; so he survived. A moment of carelessness, an instant's relaxation of his habitual caution, and he would be one with his forebears, forgotten meals of long-dead, inhuman monsters.

Three days before, Burl had crouched behind a bulky, shapeless fungus growth while he watched a furious duel between two huge horned beetles. Their jaws, gaping wide, clicked and clashed upon each others' impenetrable armor. Their legs

crashed like so many cymbals as their polished surfaces ground and struck against each other. They were fighting over some particularly attractive bit of carrion.

Burl had watched with all his eyes until a gaping orifice appeared in the armor of the smaller of the two. It uttered a shrill cry, or seemed to cry out. The noise was actually the tearing of the horny stuff beneath the victorious jaws of the adversary. The wounded beetle struggled more and more feebly. At last it collapsed, and the conqueror placidly began to eat the conquered before life was extinct.

Burl waited until the meal was finished, and then approached the scene with caution. An ant—the forerunner of many—was already inspecting the carcass.

Burl usually ignored the ants. They were stupid, short-sighted insects, and not hunters. Save when attacked, they offered no injury. They were scavengers, on the look-out for the dead and dying, but they would fight viciously if their prey were questioned, and they were dangerous opponents. They were from three inches in length for the tiny black ants, to a foot for the large termites.

Burl was hasty when he heard the tiny clickings of their limbs as they approached. He seized the sharp-pointed snout of the victim, detached from the body, and fled from the scene.

Later, he inspected his find with curiosity. The smaller victim had been a Minotaur beetle, with a sharp-pointed horn like that of a rhinoceros to reinforce his offensive armament, already dangerous because of his wide jaws. The jaws of a beetle work from side to side, instead of up and down, and this had made the protection complete in no less than three directions.

Burl inspected the sharp, danger-like instrument in his hand. He felt its point, and it pricked his finger. He flung it aside as he crept to the hiding-place of his tribe. There were only twenty of them, four or five men, six or seven women, and the rest girls and children.

Burl had been wondering at the strange feelings that came over him when he looked at one of the girls. She was younger than Burl—perhaps eighteen—and fleet of foot than he. They talked together, sometimes, and once or twice Burl shared with her an especially succulent find of foodstuffs.

The next morning he found the horn where he had thrown it, sticking in the flabby side of a toadstool. He pulled it out, and gradually, far back in his mind, an idea began to take shape. He sat for some time with the thing in his hand, considering it with a far-away look in his eyes. From time to time he stabbed at a toadstool, awkwardly, but with gathering skill. His imagination began to work fitfully. He visualized himself stabbing food with it as the larger beetle had stabbed the former owner of the weapon in his hand.

Burl could not imagine himself coping with one of the fighting insects. He could only picture himself, dimly, stabbing something that was food with this death-dealing thing. It was longer than his

arm and though clumsy to the hand, an effective and terribly sharp implement.

He thought. Where was there food, food that lived, that would not fight back? Presently he rose and began to make his way toward the tiny river. Yellow-bellied newts swam in its waters. The swimming larvæ of a thousand insects floated about its surface or crawled upon its bottom.

There were deadly things there, too. Giant crayfish snapped their horny claws at the unwary. Mosquitoes of four-inch wing-spread sometimes made their humming way above the river. The last survivors of their race, they were dying out for lack of the plant-juices on which the male of the species lived, but even so they were formidable. Burl had learned to crush them with fragments of fungus.

He crept slowly through the forest of toadstools. Brownish fungus was underfoot. Strange orange, red, and purple molds clustered about the bases of the creamy toadstool stalks. Once Burl paused to run his sharp-pointed weapon through a fleshy stalk and reassure himself that what he planned was practicable.

He made his way furtively through the forest of misshapen growths. Once he heard a tiny clicking, and froze into stillness. It was a troop of four or five ants, each some eight inches long, returning along their habitual pathway to their city. They moved sturdily, heavily laden, along the route marked with the odorous formic acid exuded from the bodies of their comrades. Burl waited until they had passed, then went on.

He came to the bank of the river. Green scum covered a great deal of its surface, scum occasionally broken by a slowly enlarging bubble of some gas released from decomposing matter on the bottom. In the center of the placid stream the current ran a little more swiftly, and the water itself was visible.

Over the shining current water-spiders ran swiftly. They had not shared in the general increase of size that had taken place in the insect world. Depending upon the capillary qualities of the water to support them, an increase in size and weight would have deprived them of the means of locomotion.

From the spot where Burl first peered at the water the green scum spread out for many yards into the stream. He could not see what swam and wriggled and crawled beneath the evil-smelling covering. He peered up and down the banks.

Perhaps a hundred and fifty yards below, the current came near the shore. An out-cropping of rock there made a steep descent to the river, from which yellow shelf-fungi stretched out. Dark-red and orange above, they were light-yellow below, and they formed a series of platforms above the smoothly flowing stream. Burl made his way cautiously toward them.

On his way he saw one of the edible mushrooms that formed so large a part of his diet, and paused to break from the flabby flesh an amount that would feed him for many days. It was too often the custom of his people to find a store of food, carry it to

their hiding-place, and then gorge themselves for days, eating, sleeping, and waking only to eat again until the food was gone.

Absorbed as he was in his plan of trying his new weapon, Burl was tempted to return with his booty. He would give Saya of this food, and they would eat together. Saya was the maiden who roused unusual emotions in Burl. He felt strange impulses stirring within him when she was near, a desire to touch her, to caress her. He did not understand.

He went on, after hesitating. If he brought her food, Saya would be pleased, but if he brought her of the things that swam in the stream, she would be still more pleased. Degraded as his tribe had become, Burl was yet a little more intelligent than they. He was an atavism, a throwback to ancestors who had cultivated the earth and subjugated its animals. He had a vague idea of pride, unformed but potent.

No man within memory had hunted or slain for food. They knew of meat, yes, but it had been the fragments left by an insect-hunter, seized and carried away by the men before the perpetually alert ant-colonies had sent their foragers to the scene.

If Burl did what no man before him had done, if he brought a whole carcass to his tribe, they would envy him. They were preoccupied solely with their stomachs, and after that with the preservation of their lives. The perpetuation of the race came third in their consideration.

They were herded together in a leaderless group, coming to the same hiding-place that they might share in the finds of the lucky and gather comfort from their numbers. Of weapons, they had none. They sometimes used stones to crack open the limbs of the huge insects they found partly devoured, cracking them open for the sweet meat to be found inside, but they sought safety from their enemies solely in flight and hiding.

Their enemies were not as numerous as might have been imagined. Most of the meat-eating insects have their allotted prey. The sphex—a hunting wasp—feeds solely upon grasshoppers. Other wasps eat flies only. The pirate-bee eats bumblebees only. Spiders were the principal enemies of man, as they devour with a terrifying impartiality all that falls into their clutches.

Burl reached the spot from which he might gaze down into the water. He lay prostrate, staring into the shallow depths. Once a huge crayfish, as long as Burl's body, moved leisurely across his vision. Small fishes and even the huge newts fled before the voracious creature.

After a long time the tide of underwater life resumed its activity. The wriggling grubs of the dragon-flies reappeared. Little flecks of silver swam into view—a school of tiny fish. A larger fish appeared, moving slowly through the water.

Burl's eyes glistened and his mouth watered. He reached down with his long weapon. It barely touched the water. Disappointment filled him, yet the nearness and the apparent practicability of his scheme spurred him on.

He considered the situation. There were the shelf-fungi below him. He rose and moved to a

point just above them, then thrust his spear down. They resisted its point. Burl felt them tentatively with his foot, then dared to thrust his weight to them. They held him firmly. He clambered down and lay flat upon them, peering over the edge as before.

The large fish, as long as Burl's arm, swam slowly to and fro below him. Burl had seen the former owner of his spear strive to thrust it into his opponents, and knew that a thrust was necessary. He had tried his weapon upon toadstools—had practised with it. When the fish swam below him, he thrust sharply downward. The spear seemed to bend when it entered the water, and missed its mark by inches, to Burl's astonishment. He tried again and again.

He grew angry with the fish below him for eluding his efforts to kill it. Repeated strokes had left it untouched, and it was unwary, and did not even try to run away.

Burl became furious. The big fish came to rest directly beneath his hand. Burl thrust downward with all his strength. This time the spear, entering vertically, did not seem to bend. It went straight down. Its point penetrated the scales of the swimmer below, transfixing that lazy fish completely.

An uproar began. The fish, struggling to escape, and Burl, trying to draw it up to his perch, made a huge commotion. In his excitement Burl did not observe a tiny ripple some distance away. The monster crayfish was attracted by the disturbance and was approaching.

The unequal combat continued. Burl hung on desperately to the end of his spear. Then there was a tremor in Burl's support, it gave way, and fell into the stream with a mighty splash. Burl went under, his eyes open, facing death. And as he sank, his wide-open eyes saw waved before him the gaping claws of the huge crayfish, large enough to sever a limb with a single stroke of their jagged jaws.

## CHAPTER II.

### The Black-Bellied Spider

HE opened his mouth to scream, a replica of the terrible screams of his grandfather, seized by a black-bellied tarantula years before, but no sound came forth. Only bubbles floated to the surface of the water. He beat the unresisting fluid with his hands—he did not know how to swim. The colossal creature approached leisurely, while Burl struggled helplessly.

His arms struck a solid object, and grasped it convulsively. A second later he had swung it between himself and the huge crustacean. He felt a shock as the mighty jaws closed upon the cork-like fungus, then felt himself drawn upward as the crayfish released his hold and the shelf-fungus floated to the surface. Having given way beneath him, it had been carried below him in his fall, only to rise within his reach just when most needed.

Burl's head popped above water and he saw a larger bit of the fungus floating near by. Less securely anchored to the rocks of the river-bank than the shelf to which Burl had trusted himself, it had been dislodged when the first shelf gave away. It

was larger than the fragment to which Burl clung, and floated higher in the water.

Burl was cool with a terrible self-possession. He seized it and struggled to draw himself on top of it. It tilted as his weight came upon it, and nearly overturned, but he paid no heed. With desperate haste, he clawed with hands and feet until he could draw himself clear of the water, of which he would forever retain a slight fear.

As he pulled himself upon the furry, orange-brown upper surface, a sharp blow struck his foot. The crayfish, disgusted at finding only what was to it a tasteless morsel in the shelf-fungus, had made a languid stroke at Burl's wriggling foot in the water. Failing to grasp the fleshy member, the crayfish retreated, disgruntled and annoyed.

And Burl floated down-stream, perched, weaponless and alone, frightened and in constant danger, upon a flimsy raft composed of a degenerate fungus, floating slowly down the stream of a river in whose waters death lurked unseen, upon whose banks was peril, and above whose reaches danger fluttered on golden wings.

It was a long time before he recovered his self-possession, and when he did he looked first for his spear. It was floating in the water, still transfixing the fish whose capture had endangered Burl's life. The fish now floated with its belly upward, all life gone.

So insistent was Burl's instinct for food that his predicament was forgotten when he saw his prey just out of his reach. He gazed at it, and his mouth watered, while his cranky craft went down-stream, spinning slowly in the current. He lay flat on the floating fungoid, and strove to reach out and grasp the end of the spear.

The raft tilted and nearly flung him overboard again. A little later he discovered that it sank more readily on one side than on the other. That was due, of course, to the greater thickness—and consequently greater buoyancy—of the part which had grown next the rocks of the river-bank.

Burl found that if he lay with his head stretching above that side, it did not sink into the water. He wriggled into this new position, then, and waited until the slow revolution of his vessel brought the spear-shaft near him. He stretched his fingers and his arm, and touched, then grasped it.

A moment later he was tearing strips of flesh from the side of the fish and cramming the oily mess into his mouth with great enjoyment. He had lost his edible mushroom. That danced upon the waves several yards away, but Burl ate contentedly of what he possessed. He did not worry about what was before him. That lay in the future, but suddenly he realized that he was being carried farther and farther from Saya, the maiden of his tribe who caused strange bliss to steal over him when he contemplated her.

The thought came to him when he visualized the delight with which she would receive a gift of part of the fish he had caught. He was suddenly stricken with dumb sorrow. He lifted his head and looked longingly at the river banks.

A long, monotonous row of strangely colored fungus growths. No healthy green, but pallid, cream-colored toadstools, some bright orange, lavender, and purple molds, vivid carmine "rusts"

and mildews, spreading up the banks from the turgid slime. The sun was not a ball of fire, but merely shone as a bright golden patch in the haze-filled sky, a patch whose limits could not be defined or marked.

In the faintly pinkish light that filtered down through the air a multitude of flying objects could be seen. Now and then a cricket or a grasshopper made its bullet-like flight from one spot to another. Huge butterflies fluttered gayly above the silent, seemingly lifeless world. Bees lumbered anxiously about, seeking the cross-shaped flowers of the monster cabbages. Now and then a slender-waisted, yellow-stomached wasp flew alertly through the air.

Burl watched them with a strange indifference. The wasps were as long as himself. The bees, on end, could match his height. The butterflies ranged, from tiny creatures barely capable of shading his face, to colossal things in the folds of whose wings he could have been lost. And above him fluttered dragon-flies, whose long, spindle-like bodies were three times the length of his own.

Burl ignored them all. Sitting there, an incongruous creature of pink skin and soft brown hair upon an orange fungus floating in midstream, he was filled with despondency because the current carried him forever farther and farther from a certain slender-limbed maiden of his tiny tribe, whose glances caused an odd commotion in his breast.

The day went on. Once, Burl saw upon the blue-green mold that there spread upward from the river, a band of large, red, Amazon ants, marching in orderly array, to raid the city of a colony of black ants, and carry away the eggs they would find there. The eggs would be hatched, and the small black creatures made the slaves of the brigands who had stolen them.

The Amazon ants can live only by the labor of their slaves, and for that reason are mighty warriors in their world. Later, etched against the steaming mist that overhung everything as far as the eye could reach, Burl saw strangely shaped, swollen branches rearing themselves from the ground. He knew what they were. A hard-rinded fungus that grew upon itself in peculiar mockery of the vegetation that had vanished from the earth.

And again he saw pear-shaped objects above some of which floated little clouds of smoke. They, too, were fungus growths, puffballs, which when touched emit what seems a puff of vapor. These would have towered above Burl's head, had he stood beside them.

And then, as the day drew to an end, he saw in the distance what seemed a range of purple hills. They were tall hills to Burl, some sixty or seventy feet high, and they seemed to be the agglomeration of a formless growth, multiplying its organisms and forms upon itself until the whole formed an irregular, cone-shaped mound. Burl watched them apathetically.

Presently, he ate again of the oily fish. The taste was pleasant to him, accustomed to feed mostly upon insipid mushrooms. He stuffed himself, though the size of his prey left by far the larger part still un-eaten.

He still held his spear firmly beside him. It had brought him into trouble, but Burl possessed a

fund of obstinacy. Unlike most of his tribe, he associated the spear with the food it had secured, rather than with the difficulty into which it had led him. When he had eaten his fill he picked it up and examined it again. The sharpness of its point was unimpaired.

Burl handled it meditatively, debating whether or not to attempt to fish again. The shakiness of his little raft dissuaded him, and he abandoned the idea. Presently he stripped a sinew from the garment about his middle and hung the fish about his neck with it. That would leave him both hands free. Then he sat cross-legged upon the soggy floating fungus, like a pink-skinned Buddha, and watched the shores go by.

Time had passed, and it was drawing near sunset. Burl, never having seen the sun save as a bright spot in the overhanging haze, did not think of the coming of night as "sunset." To him it was the letting down of darkness from the sky.

To-day happened to be an exceptionally bright day, and the haze was not as thick as usual. Far to the west, the thick mist turned to gold, while the thicker clouds above became blurred masses of dull-red. Their shadows seemed like lavender from the contrast of shades. Upon the still surface of the river, all the myriad tints and shadings were reflected with an incredible faithfulness, and the shining tops of the giant mushrooms by the river brim glowed faintly pink.

Dragonflies buzzed over his head in their swift and angular flight, the metallic luster of their bodies glistening in the rosy light. Great yellow butterflies flew lightly above the stream. Here, there, and everywhere upon the water appeared the shell-formed boats of a thousand caddis flies, floating upon the surface while they might.

Burl could have thrust his hand down into their cavities and seized the white worms that inhabited the strange craft. The huge bulk of a tardy bee droned heavily overhead. Burl glanced upward and saw the long proboscis and the hairy hinder legs with their scanty load of pollen. He saw the great, multiple-lensed eyes with their expression of stupid preoccupation, and even the sting that would mean death alike for him and for the giant insect, should it be used.

The crimson radiance grew dim at the edge of the world. The purple hills had long been left behind. Now the slender stalks of ten thousand round-domed mushrooms lined the river-bank, and beneath them spread fungi of all colors, from the rawest red to palest blue, but all now fading slowly to a monochromatic background in the growing dusk.

The buzzing, fluttering, and the flapping of the insects of the day died slowly down, while from a million hiding-places there crept out into the deep night soft and furry bodies of great moths, who preened themselves and smoothed their feathery antennæ before taking to the air. The strong-limbed crickets set up their thunderous noise—grown gravely bass with the increasing size of the organs by which the sound was made—and then there began to gather on the water those slender spirals of tenuous mist that would presently blanket the stream in a mantle of thin fog.

Night fell. The clouds above seemed to lower and



grow dark. Gradually, now a drop and then a drop, the languid fall of large, warm raindrops that would drip from the moisture-laden skies all through the night began. The edge of the stream became a place where great disks of coolly glowing flame appeared.

The mushrooms that bordered on the river were faintly phosphorescent (*Pleurotus phosphoreus*) and shone coldly upon the "rusts" and flake-fungi beneath their feet. Here and there a ball of lambent flame appeared, drifting idly above the steaming, festering earth.

Thirty thousand years before, men had called them "will-o'-the-wisps," but Burl simply stared at them, accepting them as he accepted all that passed. Only a man attempting to advance in the scale of civilization tries to explain everything that he sees. The savage and the child are most often content to observe without comment, unless the legends told by wise folk who are possessed by the itch of knowledge are repeated to them.

Burl watched for a long time. Great fireflies whose beacons lighted up their surroundings for many yards—fireflies Burl knew to be as long as his spear—great fireflies shed their intermittent glows upon the stream. Softly fluttering wings, in great beats that poured torrents of air upon him, passed above Burl.

The air was full of winged creatures. The night was broken by their cries, by the sound of their invisible wings, by their cries of anguish and their mating calls. Above him and on all sides the persistent, intense life of the insect world went on ceaselessly, but Burl rocked back and forth upon his frail mushroom boat and wished to weep because he was being carried from his tribe, and from Saya—Saya of the swift feet and white teeth, of the shy smile.

Burl may have been homesick, but his principal thoughts were of Saya. He had dared greatly to bring a gift of fresh meat to her, meat captured as meat had never been known to be taken by a member of the tribe. And now he was being carried from her!

He lay, disconsolate, upon his floating atom on the water for a great part of the night. It was long after midnight when the mushroom raft struck gently and remained grounded upon a shallow in the stream.

When the light came in the morning, Burl gazed about him keenly. He was some twenty yards from the shore, and the greenish scum surrounded his now disintegrating vessel. The river had widened out until the other bank was barely to be seen through the haze above the surface of the river, but the nearer shore seemed firm and no more full of dangers than the territory his tribe inhabited. He felt the depth of the water with his spear, then was struck with the multiple usefulness of that weapon. The water would come but slightly above his ankles.

Shivering a little with fear, Burl stepped down into the water, then made for the bank at the top of his speed. He felt a soft something clinging to one of his bare feet. With an access of terror, he ran faster, and stumbled upon the shore in a panic. He stared down at his foot. A shapeless, flesh-colored pad clung to his heel, and as Burl watched,

it began to swell slowly, while the pink of its wrinkled folds deepened.

It was no more than a leech, sharing in the enlargement nearly all the lower world had undergone, but Burl did not know that. He thrust at it with the side of his spear, then scraped frantically at it, and it fell off, leaving a blotch of blood upon the skin where it came away. It lay, writhing and pulsating upon the ground, and Burl fled from it.

He found himself in one of the toadstool forests with which he was familiar, and finally paused, disconsolately. He knew the nature of the fungus growth about him, and presently fell to eating. In Burl the sight of food always produced hunger—a wise provision of nature to make up for the instinct to store food, which he lacked.

Burl's heart was small within him. He was far from his tribe, and far from Saya. In the parlance of this day, it is probable that no more than forty miles, separated them, but Burl did not think of distances. He had come down the river. He was in a land he had never known or seen. And he was alone.

All about him was food. All the mushrooms that surrounded him were edible, and formed a store of sustenance Burl's whole tribe could not have eaten in many days, but that very fact brought Saya to his mind more forcibly. He squatted on the ground, wolfing down the insipid mushroom in great gulps, when an idea suddenly came to him with all the force of inspiration.

He would bring Saya here, where there was food, food in great quantities, and she would be pleased. Burl had forgotten the large and oily fish that still hung down his back from the sinew about his neck, but now he rose, and its flapping against him reminded him again.

He took and fingered it all over, getting his hands and himself thoroughly greasy in the process, but he could eat no more. The thought of Saya's pleasure at the sight of that, too, reinforced his determination.

With all the immediacy of a child or a savage he set off at once. He had come along the bank of the stream. He would retrace his steps along the bank of the stream.

Through the awkward aisles of the mushroom forest he made his way, eyes and ears open for possibilities of danger. Several times he heard the omnipresent clicking of ants on their multifarious businesses in the wood, but he could afford to ignore them. They were foragers rather than hunters. He only feared one kind of ant, the army-ant, which sometimes travels in hordes of millions, eating all that it comes upon. In ages past, when they were tiny creatures not an inch long, even the largest animals fled from them. Now that they measured a foot in length, not even the gorged spiders whose distended bellies were a yard in thickness, dared offer them battle.

The mushroom-forest came to an end. A cheerful grasshopper (*Ephigger*) munched delicately at some dainty it had found. Its hind legs were bunched beneath it in perpetual readiness for flight. A monster wasp appeared above—as long as Burl himself—poised an instant, dropped, and seized the luckless feaster.

There was a struggle, then the grasshopper be-

came helpless, and the wasp's flexible abdomen curved delicately. Its sting entered the jointed armor of its prey, just beneath the head. The sting entered with all the deliberate precision of a surgeon's scalpel, and all struggle ceased.

The wasp grasped the paralyzed, not dead, insect and flew away. Burl grunted, and passed on. He had hidden when the wasp darted down from above.

The ground grew rough and Burl's progress became painful. He clambered arduously up steep slopes and made his way cautiously down their farther sides. Once he had to climb through a tangled mass of mushrooms so closely placed, and so small, that he had to break them apart with blows of his spear before he could pass, when they shed upon him torrents of a fiery-red liquid that rolled off his greasy breast and sank into the ground (*Lactarius deliciosus*).

A strange self-confidence now took possession of Burl. He walked less cautiously and more boldly. The mere fact that he had struck something and destroyed it provided him with a curious fictitious courage.

He had climbed slowly to the top of a red-clay cliff, perhaps a hundred feet high, slowly eaten away by the river when it overflowed. Burl could see the river. At some past flood-time it had lapped at the base of the cliff on whose edge he walked, though now it came no nearer than a quarter-mile.

The cliffside was almost covered with shelf-fungi, large and small, white, yellow, orange, and green, in indescribable confusion and luxuriance. From a point halfway up the cliff the inch-thick cable of a spider's web stretched down to an anchorage on the ground, and the strangely geometrical pattern of the web glistened evilly.

Somewhere among the fungi of the cliffside the huge creature waited until some unfortunate prey should struggle helplessly in its monster snare. The spider waited in a motionless, implacable patience, invincibly certain of prey, utterly merciless to its victims.

Burl strutted on the edge of the cliff, a silly little pink-skinned creature with an oily fish slung about his neck and a dragged fragment of a moth's wing about his middle. In his hand he bore the long spear of a minotaur beetle. He strutted, and looked scornfully down upon the whitely shining trap below him. He struck mushrooms, and they had fallen before him. He feared nothing. He strode fearlessly along. He would go to Saya and bring her to this land where food grew in abundance.

Sixty paces before him, a shaft sank vertically in the sandy, clayey soil. It was a carefully rounded shaft, and lined with silk. It went down for perhaps thirty feet or more, and there enlarged itself into a chamber where the owner and digger of the shaft might rest. The top of the hole was closed by a trap-door, stained with mud and earth to imitate with precision the surrounding soil. A keen eye would have been needed to perceive the opening. But a keen eye now peered out from a tiny crack, the eye of the engineer of the underground dwelling.

Eight hairy legs surrounded the body of the creature that hung motionless at the top of the silken shaft. A huge misshapen globe formed its body, colored a dirty brown. Two pairs of ferocious

mandibles stretched before its fierce mouth parts. Two eyes glittered evilly in the darkness of the burrow. And over the whole body spread a rough, mangy fur.

It was a thing of implacable malignance, of incredible ferocity. It was the brown hunting-spider, the American tarantula (*Mygale Hentzi*). Its body was two feet and more in diameter, and its legs, outstretched, would cover a circle three yards across. It watched Burl, its eyes glistening. Slaver welled up and dropped from its jaws.

And Burl strutted forward on the edge of the cliff, puffed up with a sense of his own importance. The white snare of the spinning spider below him impressed him as amusing. He knew the spider would not leave its web to attack him. He reached down and broke off a bit of fungus growing at his feet. Where he broke it, it was oozing a soupy liquid and was full of tiny maggots in a delirium of feasting. Burl flung it down into the web, and then laughed as the black bulk of the hidden spider swung down from its hiding-place to investigate.

The tarantula, peering from its burrow, quivered with impatience. Burl drew near, and nearer. He was using his spear as a lever, now, and prying off bits of fungus to fall down the cliffside into the colossal web. The spider, below, went leisurely from one place to another, investigating each new missile with its palpi, then leaving them as they appeared lifeless and undesirable prey. Burl laughed again as a particularly large lump of shelf-fungus narrowly missed the black-and-silver figure below. Then—

The trap-door fell into place with a faint click, and Burl whirled about. His laughter turned to a scream. Moving toward him with incredible rapidity, the monster tarantula opened its dripping jaws. Its mandibles gaped wide. The poison fangs were unsheathed. The creature was thirty paces away, twenty paces—ten. It leaped into the air, eyes glittering, all its eight legs extended to seize, fangs bared—

Burl screamed again, and thrust out his arms to ward off the impact of the leap. In his terror, his grasp upon his spear had become agonized. The spear-point shot out and the tarantula fell upon it. Nearly a quarter of the spear entered the body of the ferocious thing.

It stuck upon the spear, writhing horribly, still struggling to reach Burl, who was transfixed with horror. The mandibles clashed, strange sounds came from the beast. Then one of the attenuated, hairy legs rasped across Burl's forearm. He gasped in ultimate fear and stepped backward—and the edge of the cliff gave way beneath him.

He hurtled downward, still clutching the spear which held the writhing creature from him. Down through space, his eyes glassy with panic, the two creatures—the man and the giant tarantula—fell together. There was a strangely elastic crash and cracking. They had fallen into the web beneath them.

Burl had reached the end of terror. He could be no more fear-struck. Struggling madly in the gummy coils of an immense web, which ever bound him more tightly, with a wounded creature shuddering in agony not a yard from him—yet a wounded creature that still strove to reach him with

its poison fangs—Burl had reached the limit of panic.

He fought like a madman to break the coils about him. His arms and breast were greasy from the oily fish, and the sticky web did not adhere to them, but his legs and body were inextricably fastened by the elastic threads spread for just such prey as he.

He paused a moment, in exhaustion. Then he saw, five yards away, the silvery and black monster waiting patiently for him to weary himself. It judged the moment propitious. The tarantula and the man were one in its eyes, one struggling thing that had fallen opportunely into its snare. They were moving but feebly now. The spider advanced delicately, swinging its huge bulk nimbly along the web, paying out a cable after it as it came.

Burl's arms were free, because of the greasy coating they had received. He waved them wildly, shrieking at the pitiless monster that approached. The spider paused. Those moving arms suggested mandibles that might wound or slap.

Spiders take few hazards. This spider was no exception to the rule. It drew cautiously near, then stopped. Its spinnerets became busy, and with one of its eight legs, used like an arm, it flung a gummy silk impartially over both the tarantula and the man.

Burl fought against the descending shroud. He strove to thrust it away, but in vain. In a matter of minutes he was completely covered in a silken cloth that hid even the light from his eyes. He and his enemy, the giant tarantula, were beneath the same covering, though the tarantula moved but weakly.

The shower ceased. The web-spider had decided that they were helpless. Then Burl felt the cables of the web give slightly, as the spider approached to sting and suck the sweet juices from its prey.

### CHAPTER III.

#### The Army Ants

**T**HE web yielded gently as the added weight of the black-bellied spider approached. Burl froze into stillness under his enveloping covering. Beneath the same silken shroud the tarantula writhed in agony upon the point of Burl's spear. It clashed its jaws, shuddering upon the horny barb.

Burl was quiet in an ecstasy of terror. He waited for the poison-fangs to be thrust into him. He knew the process. He had seen the leisurely fashion in which the giant spiders delicately stung their prey, then withdrew to wait without impatience for the poison to do its work.

When their victim had ceased to struggle they drew near again, and sucked the sweet juices from the body, first from one point and then another, until what had so recently been a creature vibrant with life became a shrunken, withered husk—to be flung from the web at nightfall. Most spiders are tidy housekeepers, destroying their snares daily to spin anew.

The bloated, evil creature moved meditatively about the shining sheet of silk it had cast over the man and the giant tarantula when they fell from the cliff above. Now only the tarantula moved feebly. Its body was outlined by a bulge in the

concealing shroud, throbbing faintly as it still struggled with the spear in its vitals. The irregularly rounded protuberance offered a point of attack for the web-spider. It moved quickly forward, and stung.

Galvanized into fresh torment by his new agony, the tarantula writhed in a very hell of pain. Its legs, clustered about the spear still fastened into its body, struck out purposelessly, in horrible gestures of delirious suffering. Burl screamed as one of them touched him and struggled himself.

His arms and head were free beneath the silken sheet because of the grease and oil that coated them. He clutched at the threads about him and strove to draw himself away from his deadly neighbor. The threads did not break, but they parted one from another, and a tiny opening appeared. One of the tarantula's attenuated limbs touched him again. With the strength of utter panic he hauled himself away, and the opening enlarged. Another struggle, and Burl's head emerged into the open air, and he stared down for twenty feet upon an open space almost carpeted with the chitinous remains of his present captor's former victims.

Burl's head was free, and his breast and arms. The fish slung over his shoulder had shed its oil upon him impartially. But the lower part of his body was held firm by the gummy snare of the web-spider, a snare far more tenacious than any birdlime ever manufactured by man.

He hung in his tiny window for a moment, despairing. Then he saw, at a little distance, the bulk of the monster spider, waiting patiently for its poison to take effect and the struggling of its prey to be stilled. The tarantula was no more than shuddering now. Soon it would be still, and the black-bellied creature waiting on the web would approach for its meal.

Burl withdrew his head and thrust desperately at the sticky stuff about his loins and legs. The oil upon his hands kept it from clinging to them, and it gave a little. In a flash of inspiration, Burl understood. He reached over his shoulder and grasped the greasy fish; tore it in a dozen places and smeared himself with the now rancid exudation, pushing the sticky threads from his limbs and oiling the surface from which he had thrust it away.

He felt the web tremble. To the spider, its poison seemed to have failed of effect. Another sting seemed to be necessary. This time it would not insert its fangs into the quiescent tarantula, but would sting where the disturbance was manifest—would send its deadly venom into Burl.

He gasped, and drew himself toward his window. It was as if he would have pulled his legs from his body. His head emerged, his shoulders, half his body was out of the hole.

The colossal spider surveyed him, and made ready to cast more of its silken sheet upon him. The spinnerets became active and the sticky stuff about Burl's feet gave way! He shot out of the opening and fell sprawling, awkwardly and heavily, upon the earth below, crashing upon the shrunken shell of a flying beetle which had fallen into the snare and had not escaped as he had.

Burl rolled over and over, and then sat up. An angry foot-long ant stood before him, its mandibles

bles extended threateningly, while its antennæ waved wildly in the air. A shrill stridulation filled the air.

In ages past, when ants were tiny creatures of lengths to be measured in fractions of an inch, learned scientists debated gravely if their tribe possessed a cry. They believed that certain grooves upon the body of the insects, after the fashion of those upon the great legs of the cricket, might offer the means of uttering an infinitely high-pitched sound too shrill for man's ears to catch.

Burl knew that the stridulation was caused by the doubtful insect before him, though he had never wondered how it was produced. The cry was used to summon others of its city, to help it in its difficulty or good fortune.

Clickings sounded fifty or sixty feet away. Comrades were coming to aid the pioneer. Harmless save when interfered with—all save the army ant, that is—the whole ant tribe was formidable when aroused. Utterly fearless, they could pull down a man and slay him as so many infuriated fox terriers might have done thirty thousand years before.

Burl fled, without debate, and nearly collided with one of the anchoring cables of the web from which he had barely escaped a moment before. He heard the shrill sound behind him suddenly subside. The ant, short-sighted as all ants were, no longer felt itself threatened and went peacefully about the business Burl had interrupted, that of finding among the grewsome relics beneath the spider's web some edible carrion which might feed the inhabitants of its city.

Burl sped on for a few hundred yards, and stopped. It behooved him to move carefully. He was in strange territory, and as even the most familiar territory was full of sudden and implacable dangers, unknown lands were doubly or trebly perilous.

Burl, too, found difficulty in moving. The glutinous stuff from the spider's shroud of silk still stuck to his feet and picked up small objects as he went along. Old ant-gnawed fragments of insect armour pricked him even through his toughened soles.

He looked about cautiously and removed them, took a dozen steps and had to stop again. Burl's brain had been uncommonly stimulated of late. It had gotten him into at least one predicament—due to his invention of a spear—but had no less readily led to his escape from another. But for the reasoning that had led him to use the grease from the fish upon his shoulder in oiling his body when he struggled out of the spider's snare, he would now be furnishing a meal for that monster.

Cautiously, Burl looked all about him. He seemed to be safe. Then, quite deliberately, he sat down to think. It was the first time in his life that he had done such a thing. The people of his tribe were not given to meditation. But an idea had struck Burl with all the force of inspiration—an abstract idea.

When he was in difficulties, something within him seemed to suggest a way out. Would it suggest an inspiration now? He puzzled over the problem. Childlike—and savage-like—the instant the thought came to him he proceeded to test it out. He fixed his gaze upon his foot. The sharp edges of pebbles,

of the remains of insect-armour, of a dozen things, hurt his feet when he walked. They had done so even since he had been born, but never before had his feet been sticky so that the irritation continued for more than a single step.

Now he gazed upon his foot, and waited for the thought within him to develop. Meanwhile he slowly removed the sharp-pointed fragments, one by one. Partly coated as they were with the half-liquid gum from his feet, they clung to his fingers as they had to his feet, except upon those portions where the oil was thick as before.

Burl's reasoning, before, was simple and of the primary order. Where oil covered him, the web did not. Therefore he would coat the rest of himself with oil. Had he been placed in the same predicament again, he would have used the same means of escape. But to apply a bit of knowledge gained in one predicament to another difficulty was something he had not yet done.

A dog may be taught that by pulling on the latch-string of a door he may open it, but the same dog coming to a high and close-barred gate with a latch-string attached will never think of pulling on this second latch-string. He associates a latch-string with the opening of the door. The opening of a gate is another matter entirely.

Burl had been stirred to one invention by imminent peril. That is not extraordinary. But to reason in cold blood, as he presently did, that oil on his feet would nullify the glue upon his feet and enable him again to walk in comfort—that was a triumph. The inventions of savages are essentially matters of life and death, of food and safety. Comfort and luxury are only produced by intelligence of a high order.

Burl, in safety, had added to his comfort. That was truly a more important thing in his development than almost any other thing he could have done. He oiled his feet.

It was an almost infinitesimal problem, but Burl's struggles with the mental process of reasoning were actual. Thirty thousand years before him, a wise man had pointed out that education is simply training in thought, in efficient and effective thinking. Burl's tribe had been too much preoccupied with food and mere existence to think, and now Burl, sitting at the base of a squat toadstool that all but concealed him, reexamplified Rodin's "Thinker" for the first time in many generations.

For Burl to reason, that oil upon the soles of his feet would guard him against sharp stones was as much a triumph of intellect as any masterpiece of art in the ages before him. Burl was learning how to think.

He stood up, walked, and crowed in sheer delight, then paused a moment in awe of his own intelligence. Thirty-five miles from his tribe, naked, unarmed, utterly ignorant of fire, of wood, of any weapons save a spear he had experimented with the day before, abysmally uninformed concerning the very existence of any art or science, Burl stopped to assure himself that he was very wonderful.

Pride came to him. He wished to display himself to Saya, these things upon his feet, and his spear. But his spear was gone.

With touching faith in the efficacy of this new pastime, Burl sat promptly down again and knitted

his brows. Just as a superstitious person, once convinced that by appeal to a favorite talisman he will be guided aright, will inevitably apply to that talisman on all occasions, so Burl plumped himself down to think.

These questions were easily answered. Burl was naked. He would search out garments for himself. He was weaponless. He would find himself a spear. He was hungry—and would seek food, and he was far from his tribe, so he would go to them. Puerile reasoning, of course, but valuable because it was consciously reasoning, consciously appealing to his mind for guidance in difficulty, deliberate progress from a mental desire to a mental resolution.

Even in the high civilization of ages before, few men had really used their brains. The great majority of people had depended upon machines and their leaders to think for them. Burl's tribe-folk depended on their stomachs. Burl, however, was gradually developing the habit of thinking which makes for leadership and which would be invaluable to his little tribe.

He stood up again and faced up-stream, moving slowly and cautiously, his eyes searching the ground before him keenly and his ears alert for the slightest sound of danger. Gigantic butterflies, riotous in coloring, fluttered overhead through the misty haze. Sometimes a grasshopper hurtled through the air like a projectile, its transparent wings beating the air frantically. Now and then a wasp sped by, intent upon its hunting, or a bee droned heavily along, anxious and worried, striving in a nearly flowerless world to gather the pollen that would feed the hive.

Here and there Burl saw flies of various sorts, some no larger than his thumb, but others the size of his whole hand. They fed upon the juices that dripped from the maggot-infested mushrooms, when filth more to their liking was not at hand.

Very far away a shrill roaring sounded faintly. It was like a multitude of clickings blended into a single sound, but was so far away that it did not impress itself upon Burl's attention. He had all the strictly localized vision of a child. What was near was important, and what was distant could be ignored. Only the imminent required attention, and Burl was preoccupied.

Had he listened, he would have realized that army ants were abroad in countless millions, spreading themselves out in a broad array and eating all they came upon far more destructively than so many locusts.

Locusts in past ages had eaten all green things. There were only giant cabbages and a few such tenacious rank growths in the world that Burl knew. The locusts had vanished with civilization and knowledge and the greater part of mankind, but the army ants remained as an invincible enemy to men and insects, and the most of the fungus growths that covered the earth.

Burl did not notice the sound, however. He moved forward, briskly though cautiously, searching with his eyes for garments, food, and weapons. He confidently expected to find all of them within a short distance.

Surely enough, he found a thicket—if one might call it so—of edible fungi no more than half a mile beyond the spot where he had improvised his san-

dals to protect the soles of his feet.

Without especial elation, Burl tugged at the largest until he had broken off a food supply for several days. He went on, eating as he did so, past a broad plain a mile and more across, being broken into odd little hillocks by gradually ripening and suddenly developing mushrooms with which he was unfamiliar.

The earth seemed to be in process of being pushed aside by rounded protuberances of which only the tips showed. Blood-red hemispheres seemed to be forcing aside the earth so they might reach the outer air.

Burl looked at them curiously, and passed among them without touching them. They were strange, and to Burl most strange things meant danger. In any event, Burl was full of a new purpose now. He wished garments and weapons.

Above the plain a wasp hovered, a heavy object dangling beneath its black belly, ornamented by a single red band. It was a wasp—the hairy sand-wasp—and it was bringing a paralyzed gray caterpillar to its burrow.

Burl watched it drop down with the speed and sureness of an arrow, pull aside a heavy, flat stone, and descend into the ground. It had a vertical shaft dug down for forty feet or more.

It descended, evidently inspected the interior, reappeared, and vanished into the hole again, dragging the gray worm after it. Burl, marching on over the broad plain that seemed stricken with some erupting disease from the number of red pimples making their appearance, did not know what passed below, but observed the wasp emerge again and busily scratch dirt and stones into the shaft until it was full.

The wasp had paralyzed a caterpillar, taken it to the already prepared burrow, laid an egg upon it, and filled up the entrance. In course of time the egg would hatch into a grub barely as long as Burl's forefinger, which would then feed upon the torpid caterpillar until it had waxed large and fat. Then it would weave itself a chrysalis and sleep a long sleep, only to wake as a wasp and dig its way to the open air.

Burl reached the farther side of the plain and found himself threading the aisles of one of the fungus forests in which the growths were hideous, misshapen travesties upon the trees they had supplanted. Bloated, yellow limbs branched off from rounded, swollen trunks. Here and there a pear-shaped puff-ball, Burl's height and half as much again, waited craftily until a chance touch should cause it to shoot upward a curling puff of infinitely fine dust.

Burl went cautiously. There were dangers here, but he moved forward steadily, none the less. A great mass of edible mushroom was slung under one of his arms, and from time to time he broke off a fragment and ate of it, while his large eyes searched this way and that for threats of harm.

Behind him, a high, shrill roaring had grown slightly in volume and nearness, but was still too far away to impress Burl. The army ants were working havoc in the distance. By thousands and millions, myriads upon myriads, they were foraging the country, clambering upon every eminence, descending into every depression, their antennæ wav-

ing restlessly and their mandibles forever threateningly extended. The ground was black with them, and each was ten inches and more in length.

A single such creature would be formidable to an unarmed and naked man like Burl, whose wisest move would be flight, but in their thousands and millions they presented a menace from which no escape seemed possible. They were advancing steadily and rapidly, shrill stridulations and a multitude of clickings marking their movements.

The great, helpless caterpillars upon the giant cabbages heard the sound of their coming, but were too stupid to flee. The black multitudes covered the rank vegetables, and tiny but voracious jaws began to tear at the flaccid masses of flesh.

Each creature had some futile means of struggling. The caterpillars strove to throw off their innumerable assailants by writhings and contortions, wholly ineffective. The bees fought their entrance to the gigantic hives with stings and wing-beats. The moths took to the air in helpless blindness when discovered by the relentless throngs of small black insects which reeked of formic acid and left the ground behind them denuded of every living thing.

Before the oncoming horde was a world of teeming life, where mushrooms and fungi fought with thinning numbers of giant cabbages for foothold. Behind the black multitude was—nothing. Mushrooms, cabbages, bees, wasps, cricket, every creeping and crawling thing that did not get aloft before the black tide reached it was lost, torn to bits by tiny mandibles. Even the hunting spiders and tarantulas fell before the hosts of insects, having killed many in their final struggles, but overwhelmed by sheer numbers. And the wounded and dying army ants made food for their sound comrades.

There is no mercy among insects. Only the web-spiders sat unmoved and immovable in their colossal snares, secure in the knowledge that their gummy webs would discourage attempts at invasion along the slender supporting cables.

Surging onward, flowing like a monstrous, murky tide over the yellow, steaming earth, the army ants advanced. Their vanguard reached the river, and recoiled. Burl was perhaps five miles distant when they changed their course, communicating the altered line of march to those behind them in some mysterious fashion of transmitting intelligence.

Thirty thousand years before, scientists had debated gravely over the means of communication among ants. They had observed that a single ant finding a bit of booty too large for him to handle alone would return to the ant-city and return with others. From that one instance they deduced a language of gesture made with the antennæ.

Burl had no wise theories. He merely knew facts, but he knew that the ants had some form of speech or transmission of ideas. Now, however, he was moving cautiously along toward the stamping-grounds of his tribe, in complete ignorance of the black blanket of living creatures creeping over the ground toward him.

A million tragedies marked the progress of the insect army. There was a tiny colony of mining bees—Zebra bees—a single mother, some four feet

long, had dug a huge gallery with some ten cells, in which she laid her eggs and fed her grubs with hard-gathered pollen. The grubs had waxed fat and large, became bees, and laid eggs in their turn, within the gallery their mother had dug out for them.

Ten such bulky insects now foraged busily for grubs within the ancestral home, while the founder of the colony had grown dragged and wingless with the passing of time. Unable to forage, herself, the old bee became the guardian of the nest or hive, as is the custom among the mining bees. She closed the opening of the hive with her head, making a living barrier within the entrance, and withdrawing to give entrance and exit only to duly authenticated members of the colony.

The ancient and dragged concierge of the underground dwelling was at her post when the wave of army ants swept over her. Tiny, evil-smelling feet trampled upon her. She emerged to fight with mandible and sting for the sanctity of the hive. In a moment she was a shaggy mass of biting ants, rending and tearing at her chitinous armour. The old bee fought madly, viciously, sounding a buzzing alarm to the colonists yet within the hive. They emerged, fighting as they came, for the gallery leading down was a dark flood of small insects.

For a few moments a battle such as would make an epic was in progress. Ten huge bees, each four to five feet long, fighting with legs and jaw, wing and mandible, with all the ferocity of as many tigers. The tiny, vicious ants covered them, snapping at their multiple eyes, biting at the tender joints in their armour—sometimes releasing the larger prey to leap upon an injured comrade wounded by the huge creature they battled in common.

The fight, however, could have but one ending. Struggle as the bees might, herculean as their efforts might be, they were powerless against the incredible numbers of their assailants, who tore them into tiny fragments and devoured them. Before the last shred of the hive's defenders had vanished, the hive itself was gutted alike of the grubs it had contained and the food brought to the grubs by such weary effort of the mature bees.

The army ants went on. Only an empty gallery remained, that and a few fragments of tough armour, unappetising even to the omnivorous ants.

Burl was meditatively inspecting the scene of a recent tragedy, where rent and scraped fragments of a great beetle's shiny casing lay upon the ground. A greater beetle had come upon the first and slain him. Burl was looking upon the remains of the meal.

Three or four minims, little ants barely six inches long, foraged industriously among the bits. A new ant-city was to be formed, and the queen-ant lay hidden a half-mile away. These were the first hatchlings, who would feed the larger ants on whom would fall the great work of the ant-city. Burl ignored them, searching with his eyes for a spear or weapon of some sort.

Behind him the clicking roar, the high-pitched stridulations of the horde of army ants, rose in volume. Burl turned disgustedly away. The best he could find in the way of a weapon was a fiercely toothed hind-leg. He picked it up, and an angry whine rose from the ground.

One of the black minims was working busily to detach a fragment of flesh from the joint of the leg, and Burl had snatched the morsel from him. The little creature was hardly half a foot in length, but it advanced upon Burl, shrilling angrily. He struck it with the leg and crushed it. Two of the other minims appeared, attracted by the noise the first had made. Discovering the crushed body of their fellow, they unceremoniously dismembered it and bore it away in triumph.

Burl went on, swinging the toothed limb in his hand. It made a fair club, and Burl was accustomed to use stones to crush the juicy legs of such giant crickets as his tribe sometimes came upon. He formed a half-defined idea of a club. The sharp teeth of the thing in his hand made him realize that a sidewise blow was better than a spear-like thrust.

The sound behind him had become a distant whispering, high-pitched, and growing nearer. The army ants swept over a mushroom forest, and the yellow, umbrella-like growths swarmed with black creatures devouring the substance on which they found a foot-hold.

A great blue-bottle fly, shining with a metallic luster, reposed in an ecstasy of feasting, sipping through its long proboscis the dark-colored liquid that dripped slowly from a mushroom. Maggots filled the mushroom, and exuded a solvent pepsin that liquified the white firm "meat."

They fed upon this soup, this gruel, and a surplus dripped to the ground below, where the blue-bottle drank eagerly. Burl drew near, and struck. The fly collapsed into a writhing heap. Burl stood over it for an instant, pondering.

The army ants came nearer, down into a tiny valley, swarming into and through a little brook over which Burl had leaped. Ants can remain under water for a long time without drowning, so the small stream was but a minor obstacle, though the current of water swept many of them off their feet until they choked the brook-bed and their comrades passed over their struggling bodies dry-shod. They were no more than temporarily annoyed however, and crawled out to resume their march.

About a quarter of a mile to the left of Burl's line of march, and perhaps a mile behind the spot where he stood over the dead blue-bottle fly, there was a stretch of an acre or more where the giant, rank cabbages had so far resisted the encroachments of the ever-present mushrooms. The pale, cross-shaped flowers of the cabbages formed food for many bees, and the leaves fed numberless grubs and worms, and loud-voiced crickets which crouched about on the ground, munching busily at the succulent green stuff. The army ants swept into the green area, ceaselessly devouring all they came upon.

A terrific din arose. The crickets hurtled away in rocket-like flight, in a dark cloud of wildly-beating wings. They shot aimlessly in any direction, with the result that half, or more than half, fell in the midst of the black tide of devouring insects and were seized as they fell. They uttered terrible cries as they were being torn to bits. Horrible inhuman screams reached Burl's ears.

A single such cry of agony would not have attracted Burl's attention—he lived in the very

atmosphere of tragedy—but the chorus of creatures in torment made him look up. This was no minor horror. Wholesale slaughter was going on. He peered anxiously in the direction of the sound.

A stretch of sickly yellow fungus was here and there interspersed with a squat toadstool or a splash of vivid color where one of the many "rusts" had found a foothold. To the left a group of awkward, misshapen fungoids clustered in silent mockery of a forest of trees. There was a mass of faded green, where the giant cabbages stood.

With the true sun never shining upon them save through a blanket of thick haze or heavy clouds, they were pallid things, but they were the only green things Burl had seen. Their nodding white flowers with four petals in the form of a cross glowed against the yellowish-green leaves. But as Burl gazed toward them, the green became slowly black.

From where he stood, Burl could see two or three great grubs in lazy contentment, eating ceaselessly of the cabbages on which they rested. Suddenly first one and then the other began to jerk spasmodically. Burl saw that about each of them a tiny rim of black had clustered. Tiny black motes milled over the green surfaces of the cabbages. The grubs became black, the cabbages became black. Horrible contortions of the writhing grubs told of the agonies they were enduring. Then a black wave appeared at the further edge of the stretch of sickly yellow fungus, a glistening, living wave, that moved forward rapidly with the roar of clickings and a persistent overtone of shrill stridulations.

The hair rose upon Burl's head. He knew what this was! He knew all too well the meaning of that tide of shining bodies. With a gasp of terror, all his intellectual preoccupations forgotten, he turned and fled in ultimate panic. And the tide came slowly on after him.

## CHAPTER IV.

### The Red Death

HE flung away the great mass of edible mushroom, but clung to his sharp-toothed club desperately, and darted through the tangled aisles of the little mushroom forest with a heedless disregard of the dangers that might await him there. Flies buzzed about him loudly, huge creatures, glittering with a metallic luster. Once he was struck upon the shoulder by the body of one of them, and his skin was torn by the swiftly vibrating wings of the insect, as long as Burl's hand.

Burl thrust it away and sped on. The oil with which he was partly covered had turned rancid, now, and the odor attracted them, connoisseurs of the fetid. They buzzed over his head, keeping pace even with his head-long flight.

A heavy weight settled upon his head, and in a moment was doubled. Two of the creatures had dropped upon his oily hair, to sip the rancid oil through their disgusting proboscides. Burl shook them off with his hand and ran madly on. His ears were keenly attuned to the sound of the army ants behind him, and it grew but little farther away.

The clicking roar continued, but began to be overshadowed by the buzzing of the flies. In Burl's time the flies had not great heaps of putrid matter in which to lay their eggs. The ants—busy scavengers—carted away the débris of the multitudinous tragedies of the insect world long before it could acquire the gamey flavor beloved by the fly maggots. Only in isolated spots were the flies really numerous, but there they clustered in clouds that darkened the sky.

Such a buzzing, whirling cloud surrounded the madly-running figure of Burl. It seemed as though a miniature whirlwind kept pace with the little pink-skinned man, a whirlwind composed of winged bodies and multi-faceted eyes. He twirled his club before him, and almost every stroke was interrupted by an impact against a thinly-armoured body which collapsed with a spurting of reddish liquid.

An agonizing pain as of a red-hot iron struck upon Burl's back. One of the stinging flies had thrust its sharp-tipped proboscis into Burl's flesh to suck the blood.

Burl uttered a cry and—ran full tilt into the thick stalk of a blackened and draggled toadstool. There was a curious crackling as of wet punk or brittle, rotten wood. The toadstool collapsed upon itself with a strange splashing sound. Many flies had laid their eggs in the fungoid, and it was a teeming mass of corruption and ill-smelling liquid.

With the crash of the toadstool's "head" upon the ground, it fell into a dozen pieces, and the earth for yards around was spattered with a stinking liquid in which tiny, headless maggots twitched convulsively.

The buzzing of the flies took on a note of satisfaction, and they settled by hundreds about the edges of the ill-smelling pools, becoming lost in the ecstasy of feasting while Burl staggered to his feet and darted off again. This time he was but a minor attraction to the flies, and but one or two came near him. From every direction they were hurrying to the toadstool feast, to the banquet of horrible liquefied fungus that lay spread upon the ground.

Burl ran on. He passed beneath the wide-spreading leaves of a giant cabbage. A great grass-hopper crouched upon the ground, its tremendous jaws crunching the rank vegetation voraciously. Half a dozen great worms ate steadily from their resting-places among the leaves. One of them slung itself beneath an over-hanging leaf—which would have thatched a dozen homes for as many men—and was placidly anchoring itself in preparation for the spinning of a cocoon in which to sleep the sleep of metamorphosis.

A mile away, the great black tide of army ants was advancing relentlessly. The great cabbage, the huge grasshopper, and all the stupid caterpillars upon the wide leaves would soon be covered with the tiny, biting insects. The cabbage would be reduced to a chewed and destroyed stump, the colossal, furry grubs would be torn into a myriad mouthfuls and devoured by the black army ants, and the grasshopper would strike out with terrific, unguided strength, crushing its assailants by blows of its powerful hind-legs and bites of its great jaws. But it would die, making terrible sounds of torment as the vicious mandibles of the army ants found crevices in its armour.

The clicking roar of the ants' advance overshadowed all other sound now. Burl was running madly, his breath coming in great gasps, his eyes wide with panic. Alone of all the world about him, he knew the danger behind. The insects he passed were going about their business with that terrifying efficiency found only in the insect world.

There is something strangely daunting in the actions of an insect. It moves so directly, with such uncanny precision, with such utter indifference to anything but the end in view. Cannibalism is a rule, almost without exception. The paralysis of prey, so it may remain alive and fresh—though in agony—for weeks on end, is a common practice. The eating piecemeal of still-living victims is a matter of course.

Absolute mercilessness, utter callousness, incredible inhumanity beyond anything known in the animal world is the natural and commonplace practice of the insects. And these vast cruelties are performed by armoured, machine-like creatures with an abstraction and a routine air that suggests a horrible Nature behind them all.

Burl nearly stumbled upon a tragedy. He passed within a dozen yards of a space where a female dung-beetle was devouring the mate whose honeymoon had begun that same day and ended in that gruesome fashion. Hidden behind a clump of mushrooms, a great yellow-banded spider was cooly threatening a smaller male of her own species. He was discreetly ardent, but if he won the favor of the gruesome creature he was wooing, he would furnish an appetizing meal for her some time within twenty-four hours.

Burl's heart was pounding madly. The breath whistled in his nostrils—and behind him, the wave of army ants was drawing nearer. They came upon the feasting flies. Some took to the air and escaped but others were too engrossed in their delicious meal. The twitching little maggots, stranded upon the earth by the scattering of their soupy broth, were torn in pieces. The flies who were seized vanished into little maws. The serried ranks of black insects went on.

The tiny clickings of their limbs, the perpetual challenges and cross-challenges of crossed antennæ, the stridulations of the creatures, all combined to make a high-pitched but deafening din. Now and then another sound pierced the noises made by the ants themselves. A cricket, seized by a thousand tiny jaws, uttered cries of agony. The shrill note of the crickets had grown deeply bass with the increase in size of the organs that uttered it.

There was a strange contrast between the ground before the advancing horde and that immediately behind it. Before, a busy world, teeming with life. Butterflies floating overhead on lazy wings, grubs waxing fat and huge upon the giant cabbages, crickets eating, great spiders sitting quietly in their lairs waiting with invincible patience for prey to draw near their trap-doors or fall into their webs, colossal beetles lumbering heavily through the mushroom forests, seeking food, making love in the monstrous, tragic fashion.

And behind the wide belt of army ants—chaos. The edible mushrooms gone. The giant cabbages left as mere stumps of unappetizing pulp, the busy life of the insect world completely wiped out save



for the flying creatures that fluttered helplessly over an utterly changed landscape. Here and there little bands of stragglers moved busily over the denuded earth, searching for some fragment of food that might conceivably have been overlooked by the main body.

Burl was putting forth his last ounce of strength. His limbs trembled, his breathing was agony, sweat stood out upon his forehead. He ran, a little, naked man with the disjointed fragment of a huge insect's limb in his hand, running for his insignificant life, running as if his continued existence among the million tragedies of that single day were the purpose for which the universe had been created.

He sped across an open space a hundred yards across. A thicket of beautifully golden mushrooms (*Agaricus coelareus*) barred his way. Beyond the mushrooms a range of strangely colored hills began, purple and green and black and gold, melting into each other, branching off from each other, inextricably tangled.

They rose to a height of perhaps sixty or seventy feet, and above them a little grayish haze had gathered. There seemed to be a layer of tenuous vapor upon their surfaces, which slowly rose and coiled, and gathered into a tiny cloudlet above their tips.

The hills, themselves, were but masses of fungus, mushrooms and rusts, fungoids of every description, yeasts, "musts," and every form of fungus growth which had grown within itself and about itself until this great mass of strangely colored, spongy stuff had gathered in a mass that undulated unevenly across the level earth for miles.

Burl burst through the golden thicket and attacked the ascent. His feet sank into the spongy sides of the hillock. Panting, gasping, staggering from exhaustion, he made his way up the top. He plunged into a little valley on the farther side, up another slope. For perhaps ten minutes he forced himself on, then collapsed. He lay, unable to move further, in a little hollow, his sharp-toothed club still clasped in his hands. Above him, a bright yellow butterfly with a thirty-foot spread of wings fluttered lightly.

He lay motionless, breathing in great gasps, his limbs refusing to lift him.

The sound of the army ants continued to grow near. At last, above the crest of the last hillock he had surmounted, two tiny antennæ appeared, then the black, glistening head of an army ant, the forerunner of its horde. It moved deliberately forward, waving its antennæ ceaselessly. It made its way toward Burl, tiny clickings coming from the movements of its limbs.

A little wisp of tenuous vapor swirled toward the ant, a wisp of the same vapor that had gathered above the whole range of hills as a thin, low cloud. It enveloped the insect—and the ant seemed to be attacked by a strange convulsion. Its legs moved aimlessly. It threw itself desperately about. If it had been a animal, Burl would have watched with wondering eyes while it coughed and gasped, but it was an insect breathing through air-holes in its abdomen. It writhed upon the spongy fungus growth across which it had been moving.

Burl, lying in an exhausted, panting heap upon the purple mass of fungus, was conscious of a strange sensation. His body felt strangely warm. He knew nothing of fire or the heat of the sun, and

the only sensation of warmth he had ever known was that caused when the members of his tribe had huddled together in their hiding place when the damp chill of the night had touched their soft-skinned bodies. Then the heat of their breath and their bodies had kept out the chill.

This heat that Burl now felt was a hotter, fiercer heat. He moved his body with a tremendous effort, and for a moment the fungus was cool and soft beneath him. Then, slowly the sensation of heat began again, increased until Burl's skin was red and inflamed from the irritation.

The thin and tenuous vapor, too, made Burl's lungs smart and his eyes water. He was breathing in great, choky gasps, but the period of rest—short as it was—had enabled him to rise and stagger on. He crawled painfully to the top of the slope, and looked back.

The hill-crest on which he stood was higher than any of those he had passed in his painful run, and he could see clearly the whole of the purple range. Where he was, he stood near the farther edge of the range, which was here perhaps half a mile wide.

It was a ceaseless, undulating mass of hills and hollows, ridges and spurs, all of them colored, purple and brown and golden-yellow, deepest black and dingy white. And from the tips of most of the pointed hills little wisps of vapor rose up.

A thin, dark cloud had gathered overhead. Burl could look to the right and left and see the hills fading into the distance, growing fainter as the haze above them seemed to grow thicker. He saw, too, the advancing cohorts of the army ants, creeping over the tangled mass of fungus growth. They seemed to be feeding as they went, upon the fungus that had gathered into these incredible monstrosities.

The hills were living. They were not upheavals of the ground, they were festering heaps of insanely growing, festering mushrooms and fungus. Upon most of them a purple mould had spread itself so that they seemed a range of purple hills, but here and there patches of other vivid colors showed, and there was a large hill whose whole side was a brilliant golden hue. Another had tiny bright-red spots of a strange and malignant mushroom whose properties Burl did not know, scattered all over the purple with which it was covered.

Burl leaned heavily upon his club and watched dully. He could run no more. The army ants were spreading everywhere over the mass of fungus. They would reach him soon.

Far to the right the vapor thickened. A column of smoke arose. What Burl did not know and would never know was that far down in the interior of that compressed mass of fungus, slow oxidation had been going on. The temperature of the interior had been raised. In the darkness and the dampness deep down in the hills, spontaneous combustion had begun.

Just as the vast piles of coal the railroad companies of thirty thousand years before had gathered together sometimes began to burn fiercely in their interiors, and just as the farmers' piles of damp straw or hay suddenly burst into fierce flames from no cause, so these huge piles of tinder-like mushrooms had been burning slowly within themselves.

There had been no flames, because the surface

remained intact and nearly air-tight. But when the army ants began to tear at the edible surfaces despite the heat they encountered, fresh air found its way to the smouldering masses of fungus. The slow combustion became rapid combustion. The dull heat became fierce flames. The slow trickle of thin smoke became a huge column of thick, choking, acrid stuff that set the army ants that breathed it into spasms of convulsive writhing.

From a dozen points the flames burst out. A dozen or more columns of blinding smoke rose to the heavens. A pall of fume-laden smoke gathered above the range of purple hills, while Burl watched apathetically. And the serried ranks of army ants marched on to the widening furnaces that awaited them.

They had recoiled from the river, because their instinct had warned them. Thirty thousand years without danger from fire, however, had let their racial fear of fire die out. They marched into the blazing orifices they had opened in the hills, snapping with their mandibles at the leaping flames, springing at the glowing tinder.

The blazing areas widened, as the purple surface was undermined and fell in. Burl watched the phenomenon without comprehension and even without thankfulness. He stood, panting more and more slowly, breathing more and more easily, until the glow from the approaching flames reddened his skin and the acrid smoke made tears flow from his eyes.

Then he retreated slowly, leaning on his club and looking back. The black wave of the army ants was sweeping into the fire, sweeping into the incredible heat of that carbonized material burning with an open flame. At last there were only the little bodies of stragglers from the great ant-army, scurrying here and there over the ground their comrades had denuded of all living things. The bodies of the main army had vanished—burnt to crisp ashes in the furnace of the hills.

There had been agony in that flame, dreadful agony such as no man would like to dwell upon. The insane courage of the ants, attacking with their horny jaws the burning masses of fungus, rolling over and over with a flaming missile clutched in their mandibles, sounding their shrill war-cry while cries of agony came from them—blinded, their antennæ burnt off, their lidless eyes scorched by the licking flames, yet going madly forward on flaming feet to attack, ever attack this unknown and unknowable enemy.

Burl made his way slowly over the hills. Twice he saw small bodies of the army ants. They had passed between the widening surfaces their comrades had opened, and they were feeding voraciously upon the hills they trod on. Once Burl was spied, and a shrill war-cry was sounded, but he moved on, and the ants were busily eating. A single ant rushed toward him. Burl brought down his club and a writhing body remained, to be eaten later by its comrades when they came upon it.

Again night fell. The sky grew red in the west, though the sun did not shine through the ever-present cloud bank. Darkness spread across the sky. Utter blackness fell over the whole mad world, save where the luminous mushrooms shed their pale light upon the ground and fireflies the length

of Burl's arm shed their fitful gleams upon an earth of fungus growths and monstrous insects.

Burl made his way across the range of mushroom hills, picking his path with his large blue eyes whose pupils expanded to great size. Slowly, from the sky, now a drop and then a drop, now a drop and then a drop, the nightly rain that would continue until daybreak began.

Burl found the ground hard beneath his feet. He listened keenly for sounds of danger. Something rustled heavily in a thicket of mushrooms a hundred yards away. There were sounds of preening, and of delicate feet placed lightly here and there upon the ground. Then the throbbing beat of huge wings began suddenly, and a body took to the air.

A fierce, down-coming current of air smote Burl, and he looked upward in time to catch the outline of a huge body—a moth—as it passed above him. He turned to watch the line of its flight, and saw a strange glow in the sky behind him. The mushroom hills were still burning.

He crouched beneath a squat toadstool and waited for the dawn, his club held tightly in his hands, and his ears alert for any sound of danger. The slow-dropping, sodden rain kept on. It fell with irregular, drum-like beats upon the tough top of the toadstool under which he had taken refuge.

Slowly, slowly, the sodden rainfall continued. Drop by drop, all the night long, the warm pellets of liquid came from the sky. They boomed upon the hollow heads of the toadstools, and splashed into the steaming pools that lay festering all over the fungus-covered earth.

And all the night long the great fires grew and spread in the mass of already half-carbonized mushroom. The flare at the horizon grew brighter and nearer. Burl, naked and hiding beneath a huge mushroom, wondering, with wide eyes, what this thing was, watched it grow near him. He had never seen a flame before.

The overhanging clouds were brightened by the flames. Over a stretch at least a dozen miles in length and from half a mile to three miles across, seething furnaces sent columns of dense smoke up to the roof of clouds, luminous from the glow below them, and spreading out and forming an intermediate layer below the cloudbanks themselves.

It was like the glow of all the many lights of a vast city thrown against the sky—but the last great city had moulded into fungus-covered rubbish thirty thousand years before. Like the fitting of airplanes above a populous city, too, was the fitting of fascinated creatures above the glow.

Moths and great flying beetles, gigantic gnats and midges, grown huge with the passing of time, they fluttered and danced the dance of death above the flames. As the fire grew nearer to Burl, he could see them.

Colossal, delicately-formed creatures swooped above the strange blaze. Moths with their riotously-colored wings of thirty-foot spread beat the air with mighty strokes, and their huge eyes glowed like carbuncles as they stared with the frenzied gaze of intoxicated devotees into the glowing flames below them.

Burl saw a great peacock moth soaring above the burning mushroom hills. Its wings were all of forty feet across, and fluttered like gigantic sails

as the moth gazed down at the flaming furnace below. The separate flames had united, now, and a single sheet of white-hot burning stuff spread across the country for miles, sending up its clouds of smoke, in which and through which the fascinated creatures flew.

Feathery antennæ of the finest lace spread out before the head of the peacock moth, and its body was softest, richest velvet. A ring of snow-white down marked where its head began, and the red glow from below smote on the maroon of its body with a strange effect.

For one instant it was outlined clearly. Its eyes glowed more redly than any ruby's fire, and the great, delicate wings were poised in flight. Burl caught the flash of the flames upon two great iridescent spots upon the wide-spread wings. Shining purple and vivid red, the glow of opal and the sheen of pearl, all the glory of chalcedony and of chrysoptase formed a single wonder in the red glare of burning fungus. White smoke compassed the great moth all about, dimming the radiance of its gorgeous dress.

Burl saw it dart straight into the thickest and brightest of the licking flames, flying madly, eagerly, into the searing, hellish heat as a willing, drunken sacrifice to the god of fire.

Monster flying beetles with their horny wing-cases stiffly stretched, blundered above the reeking, smoking pyre. In the red light from before them they shone like burnished metal, and their clumsy bodies with the spurred and fierce-toothed limbs darted like so many grotesque meteors through the luminous haze of ascending smoke.

Burl saw strange collisions and still stranger meetings. Male and female flying creatures circled and spun in the glare, dancing their dance of love and death in the wild radiance from the funeral pyre of the purple hills. They mounted higher than Burl could see, drunk with the ecstasy of living, then descended to plunge headlong to death in the roaring fires beneath them.

From every side the creatures came. Moths of brightest yellow with soft and furry bodies palpitant with life flew madly into the column of light that reached to the overhanging clouds, then moths of deepest black with gruesome symbols upon their wings came swiftly to dance, like motes in sunlight, above the glow.

And Burl sat crouched beneath an overshadowing toadstool and watched. The perpetual, slow, sodden raindrops fell. A continual faint hissing penetrated the sound of the fire—the raindrops being turned to steam. The air was alive with flying things. From far away Burl heard a strange, deep bass muttering. He did not know the cause, but there was a vast swamp, of the existence of which he was ignorant, some ten or fifteen miles away, and the chorus of insect-eating giant frogs reached his ears even at that distance.

The night wore on, while the flying creatures above the fire danced and died, their numbers ever recruited by fresh arrivals. Burl sat tensely still, his wide eyes watching everything, his mind groping for an explanation of what he saw. At last the sky grew dimly gray, then brighter, and day came on. The flames of the burning hills grew faint as

the fire died down, and after a long time Burl crept from his hiding-place and stood erect.

A hundred yards from where he was, a straight wall of smoke rose from the still smoldering fungus, and Burl could see it stretching for miles in either direction. He turned to continue on his way, and saw the remains of one of the tragedies of the night.

A huge moth had flown into the flames, been horribly scorched, and floundered out again. Had it been able to fly, it would have returned to its devouring deity, but now it lay immovable upon the ground, its antennæ seared hopelessly, one beautiful, delicate wing burned in gaping holes, its eyes dimmed by flame and its exquisitely tapering limbs broken and crushed by the force with which it had struck the ground. It lay helpless upon the earth, only the stumps of its antennæ moving restlessly, and its abdomen pulsating slowly as it drew pain-racked breaths.

Burl drew near and picked up a stone. He moved on presently, a velvet cloak cast over his shoulders, gleaming with all the colors of the rainbow. A gorgeous mass of soft, blue moth fur was about his middle, and he had bound upon his forehead two yard-long, golden fragments of the moth's magnificent antennæ. He strode on slowly, clad as no man had been clad in all the ages.

After a little he secured a spear and took up his journey to Saya, looking like a prince of Ind upon a bridal journey—though no mere prince ever wore such raiment in days of greatest glory.

## CHAPTER V.

### The Conqueror

FOR many long miles Burl threaded his way through a single forest of thin-stalked toadstools. They towered three man-heights high, and all about their bases were streaks and splashes of the rusts and molds that preyed upon them. Twice Burl came to open glades, wherein open, bubbling pools of green slime festered in corruption, and once he hid himself fearfully as a monster scarabeus beetle lumbered within three yards of him, moving heavily onward with a clanking of limbs as of some mighty machine.

Burl saw the mighty armor and the inward-curving jaws of the creature, and envied him his weapons. The time was not yet come, however, when Burl would smile at the great insect and hunt him for the juicy flesh contained in those armored limbs.

Burl was still a savage, still ignorant, still timid. His principal advance had been that whereas he had fled without reasoning, he now paused to see if he need flee. In his hands he bore a long, sharp-pointed, chitinous spear. It had been the weapon of a huge, unnamed flying insect scorched to death in the burning of the purple hills, which had floundered out of the flames to die. Burl had worked for an hour before being able to detach the weapon he coveted. It was as long and longer than Burl himself.

He was a strange sight, moving slowly and cautiously through the shadowed lanes of the mushroom forest. A cloak of delicate velvet in which all the colors of the rainbow played in iridescent beauty hung from his shoulders. A mass of soft and beau-

tiful moth fur was about his middle, and in the strip of sinew about his waist the fiercely toothed limb of a fighting beetle was thrust carelessly. He had bound to his forehead twin sacks of a great moth's feathery golden antennæ.

Against the play of color that came from his borrowed plumage his pink skin showed in odd contrast. He looked like some proud knight walking slowly through the gardens of a goblin's castle. But he was still a fearful creature, no more than the monstrous creatures about him save in the possession of latent intelligence. He was weak—and therein lay his greatest promise. A hundred thousand years before him his ancestors had been forced by lack of claws and fangs to develop brains.

Burl was sunk as low as they had been, but he had to combat more horrifying enemies, more inexorable threatenings, and many times more crafty assailants. His ancestors had invented knives and spears and flying missiles. The creatures about Burl had knives and spears a thousand times more deadly than the weapons that had made his ancestors masters of the woods and forests.

Burl was in comparison vastly more weak than his forbears had been, and it was that weakness that in times to come would lead him and those who followed him to heights his ancestors had never known. But now—

He heard a discordant, deep bass bellow, coming from a spot not twenty yards away. In a flash of panic he darted behind a clump of the mushrooms and hid himself, panting in sheer terror. He waited for an instant in frozen fear, motionless and tense. His wide, blue eyes were glassy.

The bellow came again, but this time with a querulous note. Burl heard a crashing and plunging as of some creature caught in a snare. A mushroom fell with a brittle snapping, and the spongy thud as it fell to the ground was followed by a tremendous commotion. Something was fighting desperately against something else, but Burl did not know what creature or creatures might be in combat.

He waited for a long time, and the noise gradually died away. Presently Burl's breath came more slowly, and his courage returned. He stole from his hiding-place, and would have made away, but something held him back. Instead of creeping from the scene, he crept cautiously over toward the source of the noise.

He peered between two cream-colored toadstool stalks and saw the cause of the noise. A wide, funnel-shaped snare of silk was spread out before him, some twenty yards across and as many deep. The individual threads could be plainly seen, but in the mass it seemed a fabric of sheerest, finest texture. Held up by the tall mushrooms, it was anchored to the ground below, and drew away to a tiny point through which a hole gave on some yet unknown recess. And all the space of the wide snare was hung with threads, fine, twisted threads no more than half the thickness of Burl's finger.

This was the trap of a labyrinth spider. Not one of the interlacing threads was strong enough to hold the feeblest of prey, but the threads were there by thousands. A great cricket had become entangled in the maze of sticky lines. Its limbs thrashed out, smashing the snare-lines at every

stroke, but at every stroke meeting and becoming entangled with a dozen more. It thrashed about mightily, emitting at intervals the horrible, deep bass cry that the chirping voice of the cricket had become with its increase in size.

Burl breathed more easily, and watched with a fascinated curiosity. Mere death—even tragic death—as among insects held no great interest for him. It was a matter of such common and matter-of-fact occurrence that he was not greatly stirred. But a spider and his prey was another matter.

There were few insects that deliberately sought man. Most insects have their allotted victims, and will touch no others, but spiders have a terrifying impartiality. One great beetle devouring another was a matter of indifference to Burl. A spider devouring some luckless insect was but an example of what might happen to him. He watched alertly, his gaze travelling from the emmeshed cricket to the strange orifice at the rear of the funnel-shaped snare.

The opening darkened. Two shining, glistening eyes had been watching from the rear of the funnel. It drew itself into a tunnel there, in which the spider had been waiting. Now it swung out lightly and came toward the cricket. It was a gray spider (*Agelena labyrinthica*), with twin black ribbons upon its thorax, next the head, and with two stripes of curiously speckled brown and white upon its abdomen. Burl saw, too, two curious appendages like a tail.

It came nimbly out of its tunnel-like hiding-place and approached the cricket. The cricket was struggling only feebly now, and the cries it uttered were but feeble, because of the confining threads that fettered its limbs. Burl saw the spider throw itself upon the cricket and saw the final, convulsive shudder of the insect as the spider's fangs pierced its tough armor. The sting lasted a long time, and finally Burl saw that the spider was really feeding. All the succulent juices of the now dead cricket were being sucked from its body by the spider. It had stung the cricket upon the haunch, and presently it went to the other leg and drained that, too, by means of its powerful internal suction-pump. When the second haunch had been sucked dry, the spider pawed the lifeless creature for a few moments and left it.

Food was plentiful, and the spider could afford to be dainty in its feeding. The two choicest titbits had been consumed. The remainder could be discarded.

A sudden thought came to Burl and quite took his breath away. For a second his knees knocked together in self-induced panic. He watched the gray spider carefully, with growing determination in his eyes. He, Burl, had killed a hunting-spider upon the red-clay cliff. True, the killing had been an accident, and had nearly cost him his own life a few minutes later in the web-spider's snare, but he had killed a spider, and of the most deadly kind.

Now, a great ambition was growing in Burl's heart. His tribe had always feared spiders too much to know much of their habits, but they knew one or two things. The most important was that the snare-spiders never left their lairs to hunt—never! Burl was about to make a daring application of that knowledge.

He drew back from the white and shining snare and crept softly to the rear. The fabric gathered itself into a point and then continued for some twenty feet as a tunnel, in which the spider waited while dreaming of its last meal and waiting for the next victim to become entangled in the labyrinth in front. Burl made his way to a point where the tunnel was no more than ten feet away, and waited.

Presently, through the interstices of the silk, he saw the gray bulk of the spider. It had left the exhausted body of the cricket, and returned to its resting-place. It settled itself carefully upon the soft walls of the tunnel, with its shining eyes fixed upon the tortuous threads of its trap. Burl's hair was standing straight up upon his head from sheer fright, but he was the slave of an idea.

He drew near and poised his spear, his new and sharp spear, taken from the body of an unknown dying creature killed by the burning purple hills. Burl raised the spear and aimed its sharp and deadly point at the thick gray bulk he could see dimly through the threads of the tunnel. He thrust it home with all his strength—and ran away at the top of his speed, glassy-eyed from terror.

A long time later he ventured near again, his heart in his mouth, ready to flee at the slightest sound. All was still. Burl had missed the horrible convulsions of the wounded spider, had not heard the frightful gnashings of its fangs as it gnashed at the piercing weapon, had not seen the silken threads of the tunnel ripped and torn as the spider—hurt to death—had struggled with insane strength to free itself.

He came back beneath the overshadowing toadstools, stepping quietly and cautiously, to find a great rent in the silken tunnel, to find the great gray bulk lifeless and still, half-fallen through the opening the spear had first made. A little puddle of evil-smelling liquid lay upon the ground below the body, and from time to time a droplet fell from the spear into the puddle with a curious splash.

Burl looked at what he had done, saw the dead body of the creature he had slain, saw the ferocious mandibles, and the keen and deadly fangs. The dead eyes of the creature still stared at him malignantly, and the hairy legs were still braced as if further to enlarge the gaping hole through which it had partly fallen.

Exultation filled Burl's heart. His tribe had been but furtive vermin for thousands of years, fleeing from the mighty insects, and, hiding from them, if overtaken, but waiting helplessly for death, screaming shrilly in terror.

He, Burl, had turned the tables. He had slain one of the enemies of his tribe. His breast expanded. Always his tribesmen went quietly and fearfully, making no sound. But a sudden, exultant yell burst from Burl's lips—the first hunting cry from the lips of a man in a hundred centuries!

The next second his pulse nearly stopped in sheer panic at having made such a noise. He listened fearfully, but there was no sound. He drew near his prey and carefully withdrew his spear. The viscid liquid made it slimy and slippery, and he had to wipe it dry against a leathery toadstool. Then Burl had to conquer his logical fear again before daring to touch the creature he had slain.

He moved off presently, with the belly of the spider upon his back and two of the hairy legs over his shoulders. The other limbs of the monster hung limp, and trailed upon the ground. Burl was now a still more curious sight as a gayly colored object with a cloak shining in iridescent colors, the golden antennæ of a great moth rising from his forehead, and the hideous bulk of a gray spider for a burden.

He moved through the thin-stalked mushroom forest, and because of the thing he carried all creatures fled before him. They did not fear man—their instinct was slow-moving—but during all the millions of years that insects have existed, there have existed spiders to prey upon them. So Burl moved on in solemn state, a brightly clad man bent beneath the weight of a huge and horrible monster.

He came upon a valley full of torn and blackened mushrooms. There was not a single yellow top among them. Every one had been infested with tiny maggots which had liquefied the tough meat of the mushroom and caused it to drip to the ground below. And all the liquid had gathered in a golden pool in the center of the small depression. Burl heard a loud humming and buzzing before he topped the rise that opened the valley for his inspection. He stopped a moment and looked down.

A golden-red lake, its center reflecting the hazy sky overhead. All about, blackened mushrooms, seeming to have been charred and burned by a fierce flame. A slow-flowing golden brooklet trickled slowly over a rocky ledge, into the larger pool. And all about the edges of the golden lake, in ranks and rows, by hundreds, thousands, and by millions, were ranged the green-gold, shining bodies of great flies.

They were small as compared with the other insects. They had increased in size but a fraction of the amount that the bees, for example, had increased; but it was due to an imperative necessity of their race.

The flesh-flies laid their eggs by hundreds in decaying carcasses. The others laid their eggs by hundreds in the mushrooms. To feed the maggots that would hatch, a relatively great quantity of food was needed, therefore the flies must remain comparatively small, or the body of a single grasshopper, say, would furnish food for but two or three grubs instead of the hundreds it must support.

Burl stared down at the golden pool. Bluebottles, greenbottles, and all the flies of metallic luster were gathered at the Lucullan feast of corruption. Their buzzing as they darted above the odorous pool of golden liquid made the sound Burl had heard. Their bodies flashed and glittered as they darted back and forth, seeking a place to alight and join in the orgy.

Those which clustered about the banks of the pool were still as if carved from metal. Their huge, red eyes glowed, and their bodies shone with an obscene fatness. Flies are the most disgusting of all insects. Burl watched them a moment, watched the interlacing streams of light as they buzzed eagerly above the pool, seeking a place at the festive board.

A drumming roar sounded in the air. A golden speck appeared in the sky, a slender, needlelike body with transparent, shining wings and two huge eyes. It grew nearer and became a dragon-fly twenty feet and more in length, its body shimmering, purest

gold. It poised itself above the pool and then darted down. Its jaws snapped viciously and repeatedly, and at each snapping the glittering body of a fly vanished.

A second dragon-fly appeared, its body a vivid purple, and a third. They swooped and rushed above the golden pool, snapping in mid air, turning their abrupt, angular turns, creatures of incredible ferocity and beauty. At the moment they were nothing more or less than slaughtering-machines. They darted here and there, their many-faceted eyes burning with blood-lust. In that mass of buzzing flies even the most voracious appetite must be sated, but the dragon-flies kept on. Beautiful, slender, graceful creatures, they dashed here and there above the pond like avenging fiends or the mythical dragons for which they had been named.

And the loud, contented buzzing kept on as before. Their comrades were being slaughtered by hundreds not fifty feet above their heads, but the glittering rows of red-eyed flies gorging themselves upon the golden, evil-smelling liquid kept placidly on with their feasting. The dragon-flies could contain no more, even of their chosen prey, but they continued to swoop madly above the pool, striking down the buzzing flies even though the bodies must perforce drop uneaten. One or two of the dead flies—crushed to a pulp by the angry jaws of a great dragon-fly—dropped among its feasting brothers. They shook themselves.

Presently one of them placed its disgusting proboscis upon the mangled form and sipped daintily of the juices exuding from the broken armor. Another joined it, and another. In a little while a cluster of them elbowed and pushed each other for a chance to join in the cannibalistic feast.

Burl turned aside and went on, while the slim forms of the dragon-flies still darted here and there above the pool, still striking down the droning flies with vengeful strokes of their great jaws, while a rain of crushed bodies was falling to the contented, glistening, horde below.

Only a few miles farther on Burl came upon a familiar landmark. He knew it well, but from a safe distance as always. A mass of rock had heaved itself up from the nearly level plain over which he was traveling, and formed an outjutting cliff. At one point the rock overhung a sheer drop, making an inverted ledge—a roof over nothingness—which had been preempted by a hairy creature and made into a fairylike dwelling. A white hemisphere clung tenaciously to the rock above, and long cables anchored it firmly.

Burl knew the place as one to be fearfully avoided. A *Clotho* spider (*Clotho Durandi*), had built itself a nest there, from which it emerged to hunt the unwary. Within that half-globe there was a monster, resting upon a cushion of softest silk. But if one went too near, one of the little inverted arches, seemingly firmly closed by a wall of silk, would open and a creature out of a dream of hell emerge, to run with fiendish agility toward its prey.

Surely, Burl knew the place. Hung upon the outer walls of the silken palace were stones and tiny boulders, discarded fragments of former meals, and the gutted armor from limbs of ancient prey. But what caused Burl to know the place most surely and most terribly was another decoration that

dangled from the castle of this insect ogre. This was the shrunken, dessicated figure of a man, all its juices extracted and the life gone.

The death of that man had saved Burl's life two years before. They had been together, seeking a new source of edible mushrooms for food. The *Clotho* spider was a hunter, not a spinner of snares. It sprang suddenly from behind a great puff-ball, and the two men froze in terror. Then it came swiftly forward and deliberately chose its victim. Burl had escaped when the other man was seized. Now he looked meditatively at the hiding-place of his ancient enemy. Some day—

But now he passed on. He went past the thicket in which the great moths hid during the day, and past the pool—a turgid thing of slime and yeast—in which a monster water-snake lurked. He penetrated the little wood of the shining mushrooms that gave out light at night, and the shadowed place where the truffle-hunting beetles went chirping thunderously during the dark hours.

And then he saw *Saya*. He caught a flash of pink skin vanishing behind the thick stalk of a squat toadstool, and ran forward, calling her name. She appeared, and saw the figure with the horrible bulk of the spider upon its back. She cried out in horror, and Burl understood. He let his burden fall and went swiftly toward her.

They met. *Saya* waited timidly until she saw who this man was, and then astonishment went over her face. Gorgeously attired, in an iridescent cloak from the whole wing of a great moth, with a strip of softest fur from a night-flying creature about his middle, with golden, feathery antennæ bound upon his forehead, and a fierce spear in his hands—this was not the Burl she had known.

But then he moved slowly toward her, filled with a fierce delight at seeing her again, thrilling with joy at the slender gracefulness of her form and the dark richness of her tangled hair. He held out his hands and touched her shyly. Then, manlike, he began to babble excitedly of the things that had happened to him, and dragged her toward his great victim, the gray-bellied spider.

*Saya* trembled when she saw the furry bulk lying upon the ground, and would have fled when Burl advanced and took it up upon his back. Then something of the pride that filled him came vicariously to her. She smiled a flashing smile, and Burl stopped short in his excited explanation. He was suddenly tongue-tied. His eyes became pleading and soft. He laid the huge spider at her feet and spread out his hands imploringly.

Thirty thousand years of savagery had not lessened the femininity in *Saya*. She became aware that Burl was her slave, that these wonderful things he wore and had done were as nothing if she did not approve. She drew away—saw the misery in Burl's face—and abruptly ran into his arms and clung to him, laughing happily. And quite suddenly Burl saw with extreme clarity that all these things he had done, even the slaying of a great spider, were of no importance whatever beside this most wonderful thing that had just happened, and told *Saya* so quite humbly, but holding her very close to him as he did so.

And so Burl came back to his tribe. He had left it nearly naked, with but a wisp of moth-wing

twisted about his middle, a timid, fearful, trembling creature. He returned in triumph, walking slowly and fearlessly down a broad lane of golden mushrooms toward the hiding place of his people.

Upon his shoulders was draped a great and many-colored cloak made from the whole of a moth's wing. Soft fur was about his middle. A spear was in his

hand and a fierce club at his waist. He and Saya bore between them the dead body of a huge spider—aforetime the dread of the pink-skinned, naked men.

But to Burl the most important thing of all was that Saya walked beside him openly, acknowledging him before all the tribe.

THE END

NEXT MONTH

## *“The First Men in the Moon”*

*By H. G. WELLS*

**T**HIS is undoubtedly one of the greatest moon stories ever written. What sort of beings is it possible for the moon to harbor? We know that the moon has but very little atmosphere and we also know that it is almost impossible for any sort of living organisms to maintain themselves on the surface of our satellite. We also know the moon to be a dead world. This means that its interior probably is composed of tremendous grottoes and cavities. If there was any atmosphere at any time, it probably is now contained in the interior of the moon. What sort of beings can inhabit this dead world? It is safe to say that only a Wells could think of the most amazing creatures that he describes so vividly. But somehow or other you gain the impression that it is all very true. Don't fail to read this extraordinary and amazing story.

# A DRAMA In the AIR

By Jules Verne

Author of "20,000 Leagues Under the Sea", etc.



Despair galvanized me. I threw myself upon the madman, we struggled together, and a terrible conflict took place. But I was thrown down, and while he held me under his knee, the madman was cutting the cords of the car. . . . The car fell, but I instinctively clung to the cords and hoisted myself into the meshes of the netting.



**I**N the month of September, 185—, I arrived at Frankfort-on-the-Main. My passage through the principal German cities had been brilliantly marked by balloon ascents; but as yet no German had accompanied me in my car, and the fine experiments made at Paris by MM. Greene, Eugene Godard, and Poitevin had not tempted the grave Teutons to essay aerial voyages.

But scarcely had the news of my approaching ascent spread through Frankfort, than three of the principal citizens begged the favor of being allowed to ascend with me. Two days afterwards we were to start from the Place de la Comédie. I began at once to get my balloon ready. It was of silk, prepared with gutta percha; and its volume, which was three thousand cubic yards, enabled it to ascend to the loftiest heights.

The day of the ascent was that of the great September fair, which attracts so many people to Frankfort. Lighting gas, of perfect quality and great lifting power, had been furnished me, and about eleven o'clock the balloon was filled; but only three-quarters filled,—an indispensable precaution, for, as one rises, the atmosphere diminishes in density, and the fluid enclosed within the balloon, acquiring more elasticity, might burst its sides. My calculations told me exactly the quantity of gas necessary to carry up my companions and myself.

We were to start at noon. The impatient crowd which pressed around the enclosed square, overflowing into the contiguous streets, and covering the houses from the ground-floor to the slated gables, presented a striking scene.

I carried three hundred pounds of ballast in bags; the car, quite round, four feet in diameter, was comfortably arranged; the hempen cords which supported it stretched symmetrically over the upper hemisphere of the balloon; the compass was in place, the barometer suspended in the circle which united the supporting cords, and the anchor put in order. All was now ready for the ascent.

Among those who pressed around the enclosure, I remarked a young man with a pale face and agitated features. The sight of him impressed me. He was an eager spectator of my ascents, whom I had already met in several German cities. With an uneasy air, he closely watched the curious machine, as it lay motionless a few feet above the ground; and he remained silent among those about him.

Twelve o'clock came. The moment had arrived, but my traveling companions did not appear.

I sent to their houses, and learnt that one had left for Hamburg, another for Vienna, and the third for London. Their courage had failed them at undertaking one of those excursions which, thanks to the improvement in aeronautics are free from all danger. As they formed, in some sort, a part of the programme of the day, the fear had seized them

that they might be forced to execute it faithfully, and they had fled far from the scene at the instant when the balloon was being filled. Their heroism was evidently in inverse ratio to their speed—in decamping.

The multitude, half deceived, showed not a little ill humor. I did not hesitate to ascend alone. In order to re-establish the equilibrium between the specific gravity of the balloon and the weight which had thus proved wanting, I replaced my companions by more sacks of sand, and got into the car. The twelve men who had held the balloon by twelve cords, let these slip a little between their fingers, and the balloon rose several feet higher. There was not a breath of wind, and the atmosphere was so laden that it seemed to forbid the ascent.

"Is everything ready?" I cried.

The men put themselves in readiness. A last glance told me that I might go. "Attention!"

There was a movement in the crowd, which seemed to be invading the enclosure.

"Let go!"

The balloon rose slowly, but I experienced a shock which threw me to the bottom of the car.

When I got up, I found myself face to face with an unexpected fellow-voyager,—the pale young man.

"Monsieur, I salute you," said he, with utmost coolness.

"By what right——"

"Am I here? By the right which the impossibility of your getting rid of me confers."

I was amazed! His calmness put me out of countenance, and I had nothing to reply. I looked at the intruder but he took no notice of my astonishment.

"Does my weight disarrange your equilibrium, monsieur?" he asked. "You will permit me—" and without waiting consent, he picked up two bags and emptied them into space.

"Monsieur," said I, taking the only course now possible, "you have come; very well, you will remain; but to me alone belongs the management of the balloon."

"Monsieur," said he, "your urbanity is French all over: it comes from my country. I morally press the hand you refuse me. Make all precautions, and act as seems best to you. I will wait till you have done——"

"For what?"

"To talk with you."

The barometer had fallen to twenty-six inches. We were nearly six hundred yards from the city; but nothing betrayed the horizontal displacement of the balloon, for the mass of air in which it is enclosed goes forward with it. A sort of confused glow enveloped the objects spread out under us, and fortunately obscured their outline.

I examined my companion afresh. He was a man of thirty years, simply clad. The sharpness of his features betrayed an indomitable energy, and he seemed very muscular. Indifferent to the astonishment he created, he remained motionless, trying in

*THIS was one of the very first stories published by our well-known author, appearing soon after 1850. It is perhaps not of the fine quality of some of Verne's later works, but it is a little gem in itself, because, without a doubt, it holds your interest, short as it is, has plenty of excitement and a good deal of action. Moreover, it is not only probable, but in a newspaper account some years ago, the identical thing happened in a slightly different setting. It probably will happen again. We know that you will like "A Drama in the Air."*

the meantime to distinguish the objects below us.

"Miserable mist!" said he, after a few moments. I did not reply.

"You owe me a grudge?" he went on. "Bah! I could not pay for my journey, and it was necessary to take you by surprise."

"Nobody asks you to descend, monsieur!"

"Eh, do you not know, then, that the same thing happened to the Counts of Laurencin and Dampierre, when they ascended at Lyons, on the 15th of January, 1784? A young merchant, named Fontaine, scaled the gallery, at the risk of capsizing the machine. He accomplished the journey, and nobody died of it!"

"Once on the ground, we will have an explanation," replied I, piqued at the light tone in which he spoke.

"Bah! Do not let us think of our return."

"Do you think, then, I shall not hasten to descend?"

"Descend!" said he, in surprise. "Descend? Let us begin by first ascending."

And before I could prevent it, two more bags had been thrown out of the car, without even having been emptied.

"Monsieur!" cried I, in a rage.

"I know your ability," replied the unknown quietly, "and your fine ascents are famous. But if Experience is the sister of Practice, she is also a cousin of Theory, and I have studied the aerial art long. It has got into my head!" he added sadly, falling into a silent reverie.

The balloon, having risen some distance farther, now became stationary. The unknown consulted the barometer and said, "Here we are, at eight hundred yards. Men are like insects. See! I think we should always contemplate them from this height, to judge correctly of their proportions. The Place de la Comédie is transformed into an immense ant-hill. Observe the crowd which is gathered on the quays; and the mountains also get smaller and smaller. We are over the Cathedral. The Main is only a line, cutting the city in two, and the bridge seems a thread thrown between the two banks of the river."

The atmosphere became somewhat chilly.

"There is nothing I would not do for you, my host," said the unknown. "If you are cold, I will take off my coat and lend it to you."

"Thanks," said I dryly.

"Bah! Necessity makes law. Give me your hand. I am your fellow-countryman; you will learn something in my company, and my conversation will indemnify you for the trouble I have given you."

I sat down, without replying, at the opposite extremity of the car. The young man drew a voluminous manuscript from his coat. It was an essay on ballooning.

"I possess," said he, "the most curious collection of engravings and caricatures extant concerning aerial manias. How people admired and scoffed at the same time at this precious discovery! We are happily no longer in the age in which Montgolfier tried to make artificial clouds with steam, or a gas having electrical properties, produced by the combustion of moist straw and chopped-up-wool."

"Do you wish to depreciate the talent of the in-

ventors?" I asked, for I had resolved to enter into the adventure. "Was it not good to have proved by experience the possibility of rising in the air?"

"Ah, monsieur, who denies the glory of the first aerial navigators? It required immense courage to rise by means of those frail envelopes which only contained heated air. But I ask you, has the aerial science made great progress since Blanchard's ascensions, that is, since nearly a century ago? Look here, monsieur."

The unknown took an engraving from his portfolio.

"Here," said he, "is the first aerial voyage undertaken by Pilâtre des Rosiers and the Marquis d'Arlandes, four months after the discovery of balloons. Louis XVI. refused to consent to the venture, and two men who were condemned to death were the first to attempt the aerial ascent. Pilâtre des Rosiers became indignant at this injustice, and, by means of intrigues, obtained permission to make the experiment. The car, which renders the management easy, had not been invented, and a circular gallery was placed around the lower and contracted part of the Montgolfier balloon. The two aeronauts must then remain motionless at each extremity of this gallery, for the moist straw which filled it forbade them all motion. A chafing-dish with fire was suspended below the orifice of the balloon; when the aeronauts wished to rise, they threw straw upon this brazier, at the risk of setting fire to the balloon, and the air, more heated, acquired fresh ascending power. The two bold travelers rose, on the 21st of November, 1783, from the Muette Gardens, which the dauphin had put at their disposal. The balloon went up majestically, passed over the Isle of Swans, crossed the Seine at the Conference barrier, and, drifting between the dome of the Invalides and the Military School, approached the Church of Saint Sulpice. Then the aeronauts added to the fire, crossed the Boulevard, and descended beyond the Enfer barrier. As it touched the soil, the balloon collapsed, and for a few moments buried Pilâtre des Rosiers under it folds."

"Unlucky augury," I said, interested in the story, which affected me nearly.

"An augury of the catastrophe which was later to cost this unfortunate man his life," replied the unknown sadly. "Have you never experienced anything like it?"

"Never."

"Bah! Misfortunes sometimes occur unforeshadowed!" added my companion. He then remained silent.

We were drifting southward, and Frankfort had already passed from beneath us.

"Perhaps we shall have a storm," said the young man.

"We shall descend before that," I replied.

"Better to ascend. We shall escape it more surely." And two more bags of sand were hurled into space.

The balloon rose rapidly, and stopped at twelve hundred yards. I became colder; and yet the sun's rays, falling upon the surface, expanded the gas within, and gave it a greater ascending force.

"Fear nothing," said the unknown. "We have

still three thousand five hundred fathoms of breathing air. Besides, do not trouble yourself about what I do."

I would have risen, but a vigorous hand held me to my seat. "Your name?" I asked.

"My name? What matters it to you?"

"I demand your name!"

"My name is Erostratus or Empedocles, whichever you choose!"

This reply was far from reassuring. The unknown, besides, talked with such strange coolness that I anxiously asked myself whom I had to deal with.

"Monsieur," he continued, "nothing original has been imagined since the physicist Charles. Four months after the discovery of balloons, this man had invented the valve which permits the gas to escape when the balloon is too full, or when you wish to descend; the car, which aids the management of the machine; the netting, which holds the envelope of the balloon, and divides the weight over its whole surface; the ballast, which enables you to ascend, and to choose the place of your landing; the india-rubber coating, which renders the tissue impermeable; the barometer, which shows the height attained. Lastly, Charles used hydrogen, which, fourteen times lighter than air, permits you to penetrate to the highest atmospheric regions, and does not expose you to the dangers of a combustion in the air. On the 1st of December, 1783, three hundred thousand spectators were crowded around the Tuilleries. Charles rose, and the soldiers presented arms to him. He traveled nine leagues in the air, conducting his balloon with an ability not surpassed by modern aeronauts. The king awarded him a pension of two thousand livres; for then they encouraged new inventions."

The unknown now seemed to be under the influence of considerable agitation.

"See, there is Darmstadt," said he, leaning over the car. "Do you perceive the château? Not very distinctly, eh? What would you have? The heat of the storm makes the outline of objects waver, and you must have a skilled eye to recognize localities."

"Are you certain it is Darmstadt? I asked.

"I am sure of it. We are now six leagues from Frankfort."

"Then we must descend."

"Descend! You would not go down on the steeples," said the unknown, with a chuckle.

"No, but the suburbs of the city."

"Well, let us avoid the steeples!"

So speaking, my companion seized some bags of ballast. I hastened to prevent him; but he overthrew me with one hand, and the unballasted balloon ascended to two thousand yards.

"Rest easy," said he, "and do not forget that Brioschi, Biot, Gay-Lussac, Bixio, and Barral ascended to still greater heights to make their scientific experiments."

"Monsieur, we must descend," I resumed, trying to persuade him by gentleness. "The storm is gathering around us. It would be more prudent——"

"Bah! We will mount higher than the storm, and then we shall no longer fear it!" cried my companion. "What is nobler than to overlook the clouds which oppress the earth? Is it not an honor thus to navi-

gate on aerial billows? The greatest men have traveled as we are doing. The Marchioness and Countess de Montalembert, the Countess of Podenas, Mademoiselle la Garde, the Marquis de Montalembert, rose from the Faubourg Saint-Antoine for these unknown regions, and the Duke de Chartres exhibited much skill and presence of mind in his ascent on the 15th of July, 174. At Lyons, the Counts of Laurencin and Dampierre; at Nantes, M. de Luynes; at Bordeaux, D'Arbelet des Granges; in Italy, the Chevalier Andreani; in our own time, the Duke of Brunswick,—have all left traces of their glory in the air. To equal these great personages, we must penetrate still higher than they into the celestial depths! To approach the infinite is to comprehend it!"

The rarefaction of the air was fast expending the hydrogen in the balloon, and I saw its lower part, purposely left empty, swell out, so that it was absolutely necessary to open the valve; but my companion did not seem to intend that I should manage the balloon as I wished. I then resolved to pull the valve-cord secretly, as he was excitedly talking; for I feared to guess with whom I had to deal. It would have been too horrible! It was nearly a quarter before one. We had been gone forty minutes from Frankfort; heavy clouds were coming against the wind from the south, and seemed about to burst upon us.

"Have you lost all hope of succeeding in your project?" I asked with anxious interest.

"All hope!" exclaimed the unknown in a low voice. "Wounded by slights and caricatures, these asses' kicks have finished me! It is the eternal punishment reserved for innovators! Look at these caricatures of all periods, of which my portfolio is full."

While my companion was fumbling with his papers, I had seized the valve-cord without his perceiving it. I feared, however, that he might hear the hissing noise, like a water-course, which the gas makes in escaping.

"How many jokes were made about the Abbé Moilan! said he. "He was to go up with Janninet and Bredin. During the filling their balloon caught fire, and the ignorant populace tore it to pieces! Then this caricature of 'curious animals' appeared, giving each of them a punning nickname."

I pulled the valve-cord, and the barometer began to ascend. It was time. Some far-off rumblings were heard in the south.

"Here is another engraving," resumed the unknown, not suspecting what I was doing. "It is an immense balloon carrying a ship, strong castles, houses, and so on. The caricaturists did not suspect that their follies would one day become truths. It is complete, this large vessel. On the left is its helm, with the pilot's box; at the prow are pleasure-houses, an immense organ, and a cannon to call the attention of the inhabitants of the earth or the moon; above the poop there are the observatory and the balloon longboat; in the equatorial circle, the army barrack; on the left, the funnel; then the upper galleries for promenading, sails, pinions; below, the cafés and general storehouse. Observe this pompous announcement: 'Invented for the happiness of the human race, this globe will depart at once for the ports of the Levant, and on its return the pro-

gramme of its voyages to the two poles and the extreme west will be announced. No one need furnish himself with anything; everything is foreseen, and all will prosper. Thus pleasure will be the soul of the aerial company.' All this provoked laughter; but before long, if I am not cut off, they will see it all realized."

We were visibly descending. He did not perceive it!

"This kind of 'game at balloons,'" he resumed, spreading out before me some of the engravings of his valuable collection, "this game contains the entire history of the aerostatic art. It is used by elevated minds, and displayed with dice and counters, with whatever stakes you like, to be paid or received according to where the player arrives."

"Why," said I, "you seem to have studied the science of aerostation profoundly."

"Yes, monsieur, yes! From Phaeton, Icarus, Architas, I have searched for, examined, learnt everything. I could render immense services to the world in this art, if God granted me life. But that will not be!"

"Why?"

"Because my name is Empedocles, or Erostratus."

Meanwhile the balloon was happily approaching the earth; but when one is falling, the danger is as great at a hundred feet as at five thousand.

"Do you recall the battle of Fleurus?" resumed my companion, whose face became more and more animated. "It was at that battle that Contello, by order of the Government, organized a company of balloonists. At the siege of Maubeuge General Jourdan derived so much service from this new method of observation that Contello ascended twice a day with the general himself. The communications between the aeronaut and his agents who held the balloon were made by means of small white, red, and yellow flags. Often the gun and cannon shot were directed upon the balloon when he ascended, but without result. Where General Jourdan was preparing to invest Charleroi, Contello went to the vicinity, ascended from the plain of Jumet, and continued his observations for seven or eight hours with General Morlot, and this no doubt aided in giving us the victory of Fleurus. General Jourdan publicly acknowledged the help which the aeronautical observations had afforded him. Well, despite the services rendered on that occasion and during the Belgian campaign, the year which had seen the beginning of the military career of balloons saw also its end. The school of Meudon, founded by the Government, was closed by Buonaparte on his return from Egypt. And now, what can you expect from the new-born infant? as Franklin said. The infant was born alive; it should not be stifled!"

The unknown bowed his head in his hands for some moments; then rousing himself, he said, "Despite my prohibition, monsieur, you have opened the valve."

I dropped the cord.

"Happily," he resumed, "we have still three hundred pounds of ballast."

"What is your purpose?" said I.

"Have you ever crossed the seas?" he asked.

I turned pale.

"It is unfortunate," he went on, "that we are be-

ing driven towards the Adriatic. That is only a stream; but higher up we may find other currents."

And, without any notice of me, he threw over several bags of sand, then, in a menacing voice, he said, "I let you open the valve because the expanding gas threatened to burst the balloon; but do not do it again!"

Then we went on, "You remember the voyage of Blanchard and Jeffries from Dover to Calais? It was magnificent! On the 7th of January, 1785, there being a north-west wind, their balloon was inflated with gas on the Dover coast. A mistake of equilibrium, just as they were ascending, forced them to throw out their ballast so that they might not go down again, and they only kept thirty pounds. It was too little; for, as the wind did not freshen, they only advanced very slowly towards the French coast. Besides, the permeability of the tissue served to reduce the inflation little by little, and in an hour and a half the aeronauts perceived that they were descending.

"What shall we do?" said Jeffries.

"We are only one quarter of the way over," replied Blanchard, 'and very low down. On rising, we shall perhaps meet more favorable winds.'

"Let us throw out the rest of the sand."

"The balloon acquired some ascending force, but it soon began to descend again. Towards the middle of the transit the aeronauts threw over their books and tools. A quarter of an hour after, Blanchard said to Jeffries, 'The barometer?'

"It is going up! We are lost, and yet there is the French coast."

"A loud noise was heard.

"Has the balloon burst?" asked Jeffries.

"No. The loss of the gas has reduced the inflation of the lower part of the balloon. But we are still descending. We are lost! Out with everything useless!"

"Provisions, oars, and rudder were thrown into the sea. The aeronauts were only one hundred yards high.

"We are going up again," said the doctor.

"No. It is the spurt caused by the diminution of the weight, and not a ship in sight, not a bark on the horizon! To the sea with our clothing!"

"The unfortunates stripped themselves, but the balloon continued to descend.

"Blanchard" said Jeffries, 'you should have made this voyage alone; you consented to take me; I will sacrifice myself! I shall drop into the water, and the balloon, relieved of my weight, will mount again.'

"No, no! It is frightful!"

"The balloon became less and less inflated, and as it doubled up its concavity pressed the gas against the sides, and hastened its downward course.

"Adieu," said the doctor. 'God preserve you!'

"He was about to throw himself over, when Blanchard held him back.

"There is one more chance," said he. 'We can cut the cords which hold the car, and cling to the net! Perhaps the balloon will rise. Let us hold ourselves ready. But—the barometer is going down! The wind is freshening! We are saved!'

"The aeronauts perceived Calais. Their joy was delirious. A few moments more, and they had

fallen in the forest of Guines. I do not doubt," added the unknown, "that, under similar circumstances, you would have followed Doctor Jeffries' example!"

The clouds rolled in glittering masses beneath us. The balloon threw large shadows on them, and was surrounded as by an aureola. The thunder rumbled below the car. All this was terrifying.

"Let us descend!" I cried.

"Descend, when the sun is up there, waiting for us? Out with more bags!"

And more than fifty pounds of ballast were cast over.

At a height of three thousand five hundred yards we remained stationary. The unknown talked unceasingly. I was in a state of complete prostration, while he seemed to be in his element. "With a good wind, we shall go far," he cried. "In the Antilles there are currents of air which have a speed of a hundred leagues an hour. When Napoleon was crowned, Garnerin sent up a balloon with colored lamps, at eleven o'clock at night. The wind was blowing north-north-west. The next morning, at daybreak, the inhabitants of Rome greeted its passage over the dome of St. Peter's. We shall go farther and higher!"

I scarcely heard him. Everything whirled around me. An opening appeared in the clouds.

"See that city," said the unknown. "It is Spires!"

I leaned over the car and perceived a small blackish mass. It was Spires. The Rhine, which is so large, seemed an unrolled ribbon. The sky was a deep blue over our heads. The birds had long abandoned us, for in that rarefied air they could not have flown. We were alone in space, and I in the presence of this unknown!

"It is useless for you to know whither I am leading you," he said, as he threw the compass among the clouds. "Ah! a fall is a grand thing! You know that but few victims of ballooning are to be reckoned, from Pilâtre des Rosiers to Lieutenant Gale, and that the accidents have always been the result of imprudence. Pilâtre des Rosiers set out with Romain of Boulogne, on the 13th of June, 1785. To his gas balloon he had affixed a Montgolfier apparatus of hot air, so as to dispense, no doubt, with the necessity of losing gas or throwing out ballast. It was putting a torch under a powder-barrel. When they had ascended four hundred yards, and were taken by opposing winds, they were driven over the open sea. Pilâtre, in order to descend, essayed to open the valve, but the valve-cord became entangled in the balloon, and tore it so badly that it became empty in an instant. It fell upon the Montgolfier apparatus, overturned it, and dragged down the unfortunates, who were soon shattered to pieces! It is frightful, is it not?"

I could only reply, "For pity's sake let us descend!"

The clouds gathered around us on every side, and dreadful detonations, which reverberated in the cavity of the balloon, took place beneath us.

"You provoke me," cried the unknown, "and you shall no longer know whether we are rising or falling!"

The barometer went the way of the compass, accompanied by several more bags of sand. We must

have been 5000 yards high. Some icicles had already attached themselves to the sides of the car, and a kind of fine snow seemed to penetrate to my very bones. Meanwhile a frightful tempest was raging under us, but we were above it.

"Do not be afraid," said the unknown. "It is only the imprudent who are lost. Olivari, who perished at Orleans, rose in a paper 'Montgolfier;' his car, suspended below the chafing-dish, and ballasted with combustible materials, caught fire; Olivari fell, and was killed! Mosment rose, at Lille, on a light tray; an oscillation disturbed his equilibrium; Mosment fell, and was killed! Bittorf, at Mannheim, saw his balloon catch fire in the air; and he, too, fell, and was killed! Harris rose in a badly constructed balloon, the valve of which was too large and would not shut; Harris fell, and was killed! Sadler, deprived of ballast by his long sojourn in the air, was dragged over the town of Boston and dashed against the chimneys; Sadler fell, and was killed! Cokling descended with a convex parachute which he pretended to have perfected; Cokling fell, and was killed! Well, I love them, these victims of their own imprudence, and I shall die as they did. Higher! still higher!"

All the phantoms of this necrology passed before my eyes. The rarefaction of the air and the sun's rays added to the expansion of the gas, and the balloon continued to mount. I tried to open the valve, but the unknown cut the cord several feet above my head. I was lost.

"Did you see Madame Blanchard fall?" said he. "I saw her; yes, I! I was at Tivoli on the 6th of July, 1819. Madame Blanchard rose in a small-sized balloon, to avoid the expense of filling, and she was forced to inflate it entirely. The gas leaked out below, and left a regular train of hydrogen in its path. She carried with her a sort of pyrotechnic aureola, suspended below her car by a wire, which she was to set off in the air. This she had done many times before. On this day she also carried up a small parachute ballasted by a firework contrivance, that would go off in a shower of silver. She was to start this contrivance after having lighted it with a port-fire made on purpose. She set out; the night was gloomy. At the moment of lighting her fireworks she was so imprudent as to pass the taper under the column of hydrogen which was leaking from the balloon. My eyes were fixed upon her. Suddenly an unexpected gleam lit up the darkness. I thought she was preparing a surprise. The light flashed out, suddenly disappeared and reappeared, and gave the summit of the balloon the shape of an immense jet of ignited gas. This sinister glow shed itself over the Boulevard and the whole Montmartre quarter. Then I saw the unhappy woman rise, try twice to close the appendage of the balloon, so as to put out the fire, then sit down in her car and try to guide her descent; for she did not fall. The combustion of the gas lasted for several minutes. The balloon, becoming gradually less, continued to descend, but it was not a fall. The wind blew from the north-west and drove it towards Paris. There were then some large gardens just by the house No. 16, Rue de Provence. Madame Blanchard essayed to fall there without danger; but the balloon and the car struck on the roof of the

house with a light shock. "Save me!" cried the wretched woman. I got into the street at this moment. The car slid along the roof, and encountered an iron cramp. Madame Blanchard was thrown out of her car and precipitated upon the pavement. She was killed!"

These stories froze me with horror. The unknown was standing with bare head, disheveled hair, haggard eyes! There was no longer any illusion possible. I recognized the horrible truth. I was in the presence of a madman!

He threw out the rest of the ballast, and we must have now reached a height of at least nine thousand yards. Blood spurted from my nose and mouth!

"Who are nobler than the martyrs of science?" cried the lunatic. "They are canonized by posterity."

But I no longer heard him. He bent down to my ear and muttered, "And have you forgotten Zambecarri's catastrophe? Listen. On the 7th of October, 1804, the clouds seemed to lift a little. On the preceding days, the wind and rain had not ceased; but the announced ascension of Zambecarri could not be postponed. His enemies were already bantering him. It was necessary to ascend to save the science and himself from becoming a public jest. It was at Boulogne. No one helped him to inflate his balloon. He rose at midnight, accompanied by Andreoli and Grossetti. The balloon mounted slowly, for it had been perforated by the rain, and the gas was leaking out. The three intrepid aeronauts could only observe the state of the barometer by aid of a dark lantern. Zambecarri had eaten nothing for twenty-four hours. Grossetti was also fasting.

"My friends," said Zambecarri, "I am overcome by cold, and exhausted. I am dying."

"He fell inanimate in the gallery. It was the same with Grossetti. Andreoli alone remained conscious. After long efforts, he succeeded in reviving Zambecarri.

"What news? Whither are we going? How is the wind? What time is it?"

"It is two o'clock."

"Where is the compass?"

"Upset!"

"Great God! The lantern has gone out!"

"It cannot burn in this rarefied air," said Zambecarri.

"The moon had not risen and the atmosphere was plunged in murky darkness. 'I am cold, Andreoli. What shall I do?'"

"They slowly descended through a layer of whitish clouds. 'Sh!' said Andreoli. 'Do you hear?'"

"What?" asked Zambecarri.

"A strange noise."

"You are mistaken. Consider these travelers, in the middle of the night, listening to that unaccountable noise! Are they going to knock against a tower? Are they about to be precipitated on the roofs? 'Do you hear? One would say it was the sea.'"

"Impossible!"

"It is the groaning of the waves!"

"It is true."

"Light! light! After five fruitless attempts,

Andreoli succeeded in obtaining light. It was three o'clock.

"The noise of violent waves was heard. They were almost touching the surface of the sea! 'We are lost!' cried Zambecarri, seizing a bag of sand.

"'Help!' cried Andreoli.

"The car touched the water, and the waves came up to their breasts. 'Throw out the instruments, clothes!'"

"The aeronauts completely stripped themselves. The balloon, relieved, rose with frightful rapidity. Zambecarri was taken with vomiting. Grossetti bled profusely. The unfortunate men could not speak, so short was their breathing. They were taken with cold, and they were soon crusted over with ice. The moon looked as red as blood.

"After traversing the high regions for a half-hour, the balloon again fell into the sea. It was four in the morning. They were half submerged in the water, and the balloon dragged them along, as if under sail, for several hours.

"At daybreak they found themselves opposite Pesaro, four miles from the coast. They were about to reach it, when a gale blew them back into the open sea. They were lost! The frightened boats fled at their approach. Happily, a more intelligent boatman accosted them, hoisted them on board, and they landed at Ferrada.

"A frightful journey, was it not? But Zambecarri was a brave and energetic man. Scarcely recovered from his sufferings, he resumed his ascensions. During one of them he struck against a tree; his spirit-lamp was broken on his clothes; he was enveloped in fire, his balloon began to catch the flames, and he came down half consumed.

"At last, on the 21st of September, 1812, he made another ascension at Boulogne. The balloon clung to a tree, and his lamp again set it on fire. Zambecarri fell, and was killed! And in presence of these facts, we would still hesitate! No. The higher we go, the more glorious will be our death!"

The balloon being now entirely relieved of ballast and of all it contained, we were carried to an enormous height. It vibrated in the atmosphere. The least noise resounded in the vaults of heaven. Our globe, the only object which caught my view in immensity, seemed ready to be annihilated, and above us the depths of the starry skies were lost in thick darkness.

I saw my companion rise up before me.

"The hour is come!" he said. "We must die. We are rejected of men. They despise us. We will not endure it. Let us crush them!"

"Mercy!" I cried.

"Let us cut these cords! Let this car be abandoned in space. The attractive force will change its direction, and we shall approach the sun!"

Despair galvanized me. I threw myself upon the madman, we struggled together, and a terrible conflict took place. But I was thrown down, and while he held me under his knee, the madman was cutting the cords of the car. "One!" he cried.

"My God!"

"Two! Three!"

I made a superhuman effort, rose up, and violently repulsed the madman,

"Four!" The car fell, but I instinctively clung to the cords and hoisted myself into the meshes of the netting.

The madman disappeared in space!

The balloon rose to an immeasurable height. A horrible cracking was heard. The gas, too much dilated, had burst the balloon. I shut my eyes—

Some instants after, a damp warmth revived me. I was in the midst of clouds on fire. The balloon turned over with dizzy velocity. Taken by the wind, it made a hundred leagues an hour in a horizontal course, the lightning flashing around it.

Meanwhile my fall was not a very rapid one. When I opened my eyes, I saw the country. I was two miles from the sea, and the tempest was driving me violently towards it, when an abrupt shock forced me to loosen my hold. My hands opened, a

cord slipped swiftly between my fingers, and I found myself on the solid earth!

It was the cord of the anchor, which, sweeping along the surface of the ground, was caught in a crevice; and my balloon, unballasted for the last time, careered off to lose itself beyond the sea.

When I came to myself, I was in bed in a peasant's cottage, at Harderwijk, a village of Gelderland, fifteen leagues from Amsterdam, on the shores of the Zuyder-Zee.

A miracle had saved my life, but my voyage had been a series of imprudences, committed by a lunatic, and I had not been able to prevent them.

May this terrible narrative, though instructing those who read it, not discourage the explorers of the air,

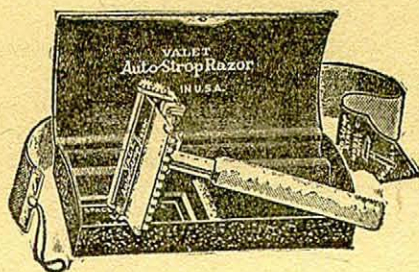
THE END

## Stars

OUT through space my spirit leaps,  
 Swifter far than light;  
 Up to the lunar craters,  
 Gilded, banked with night;  
 Over the channeled, ruddy Mars,  
 Up through Saturn's rings;  
 Parting the hair of comets,  
 On my spirit wings;  
 Out where vast and awful voids  
 Space the Milky Way—  
 Room for earths by hundreds  
 To spin the night and day;  
 Straight through stuff of orbs unborn,  
 Mammoth nebulae;  
 Lost where stars by thousands  
 Light the Ether Sea;  
 Far in timeless, boundless space  
 Till systems cease to roll;  
 Ever vainly seeking  
 Hope and the Supersoul.  
 Millions die who never knew  
 Half I see and ken  
 While I circle madly  
 Through the stars. And then—

Back to earth my spirit falls,  
 Tired of cosmic dust;  
 Needing a human being,  
 Human love and trust;  
 Gliding down on fancy's wings  
 Deep among the hills,  
 Where the elms and maples  
 Arch the flowered rills;  
 Back to dark-haired Mirabel  
 All my being flies;  
 Back to a wide-arm welcome  
 And the cosmos of her eyes.

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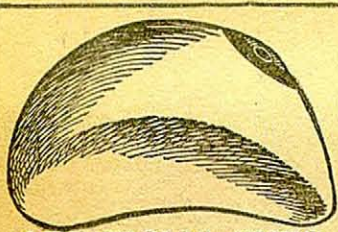
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**The Second Deluge**

(Continued from Page 701)

the ark and shook it to its center, and while New York, a few miles away, saw story after story buried under waters, crowded Cosmo's brilliantly lighted saloon, and raised their voices to a high pitch in order to be heard?

Had all the invitations which he dictated to Joseph Smith after their memorable discussion, and which were sent forth in the utmost haste, flying to every point of the compass, been accepted, and was it the famous leaders of science, the rulers and crowned heads who had passed his critical inspection that were now knocking elbows under the great dome of levium? Had kings and queens stolen incognito under the shelter of the ark, and magnates of the financial world hidden themselves there?

It would have been well for them all if they had been there. But, in fact, many of those to whom the invitations had gone did not even take the trouble to thank their would-be savior. A few, however, who did not come in person, sent responses. Among these was the President of the United States. Mr. Samson's letter was brief but characteristic. It read:

To COSMO VERSAL, Esq.

Sir:

The President directs me to say that he is grateful for your invitation, and regrets that he cannot accept it. He is informed by those to whose official advice he feels bound to listen, that the recent extraordinary events possess no such significance as you attach to them,

Respectfully,  
JAMES JENKS, Secretary.

It must be remembered that this letter was written before the oceanic overflow began. After that, possibly, the President and his advisers changed their opinion. But then communication by rail was cut off, and as soon as the downpour from the sky commenced the aero express lines were abandoned. The air-ships would have been deluged, and blown to destruction by the tremendous gusts which, at intervals, packed the rain-choked air itself into solid billows of water.

None of the rulers of the old world responded, but about half the men of science, and representatives of the other classes that Cosmo had set down



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on his list, were wise enough to accept, and they hurried to New York before the means of transit by land and sea were destroyed.

Among these were Englishmen, Frenchmen, Italians, Spaniards, Germans, Austrians, Poles, people from the Balkan states, Swedes, Danes, Russians, and a few from India, China, and Japan. The clatter of their various tongues made a very Babel inside the ark, when they talked to one another in groups, but nearly all of them were able to speak English, which, after many years of experiment, has been adopted as the common language for transacting the world's affairs.

There was another letter, which Cosmo read with real regret, although hardly with surprise. It was from Professor Pludder. Instead of expressing gratitude for the invitation, as the President, trained in political blandiloquence, had done, Professor Pludder indulged in denunciation.

"You are insane," he said. "You do not know what you are talking about. Your letter is an insult to science. These inundations" (this, too, was written before the sky had opened its flood-gates) "are perfectly explicable by the ordinary laws of nature. Your talk of a nebula is so ridiculous that it deserves no reply. If any lunatic accepts your absurd invitation, and goes into your 'ark,' he will find himself in Bedlam, where he ought to be."

"I guess you were right," Cosmo remarked to Joseph Smith, after reading this outburst. Pludder would not contribute to the regeneration of mankind. We are better off without him."

But Cosmo Versal was mistaken in thinking he had heard the last of Abiel Pludder. The latter was destined to show that he was hardly a less remarkable specimen of *homo sapiens* than the big-headed prophet of the second deluge himself.

As soon as it became evident that there would be room to spare in the ark, Cosmo set at work to fill up the list. He went over his categories once more, but now, owing to the pressure of time, he was obliged to confine his selections to persons within easy reach. They came, nearly all, from New York, or its vicinity; and since these last invitations went out just on the eve of the events described in the last two chapters, there was no delay in the acceptances, and the invitees promptly presented themselves in person.

(To be continued)

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**WIRE** is a material which has the property of being able to carry an electric current. It is the most perfect conductor of electricity that we have. The electrical conductivity of wire has been determined by experiment. The electrical conductivity of a wire is the ratio of the current which it carries to the electromotive force which causes it to flow.

**The Copper**

The property of the wire of electrical conductivity is shared by the large class of metals. The most common of these are iron, copper, zinc, and silver. The electrical conductivity of these metals has been determined by experiment. The electrical conductivity of a wire is the ratio of the current which it carries to the electromotive force which causes it to flow.

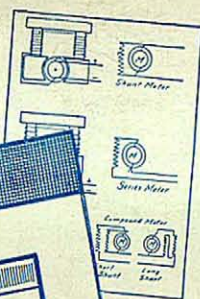
**The Steel**

The wire is the most important material in the electrical industry. It is used for making motors, generators, transformers, and for all other electrical apparatus. The electrical conductivity of wire is the ratio of the current which it carries to the electromotive force which causes it to flow.

TABLE I  
**PROPERTIES OF PURE COPPER WIRE**

Length	Weight	Area	Resistance	Volume	Weight
1000 feet	3.1416 grams	.000804 sq. mm.	103.6 ohms	.00000804 cu. m.	0.0804 gms.
1000 feet	15.708 grams	.01017 sq. mm.	20.7 ohms	.00001017 cu. m.	0.1017 gms.
1000 feet	39.48 grams	.0403 sq. mm.	8.28 ohms	.0000403 cu. m.	0.403 gms.
1000 feet	157.08 grams	.1634 sq. mm.	2.07 ohms	.0001634 cu. m.	1.634 gms.
1000 feet	394.8 grams	.653 sq. mm.	0.828 ohms	.000653 cu. m.	6.53 gms.
1000 feet	1570.8 grams	2.62 sq. mm.	0.207 ohms	.00262 cu. m.	26.2 gms.
1000 feet	3948 grams	10.5 sq. mm.	0.0828 ohms	.0105 cu. m.	105 gms.

- Symbols**
- Transformer
  - Telephone Outlet, Public
  - Telephone Outlet, Private
  - Bell Outlet
  - Buzzer
  - Flash-Button Outlet, Number
  - Indicator Lamp
  - Annunciator & Worker of Points
  - Speaking Tube
  - Watchman's Clock Outlet
  - Watchman's Station Outlet
  - Master Alarm Outlet
  - Alarm



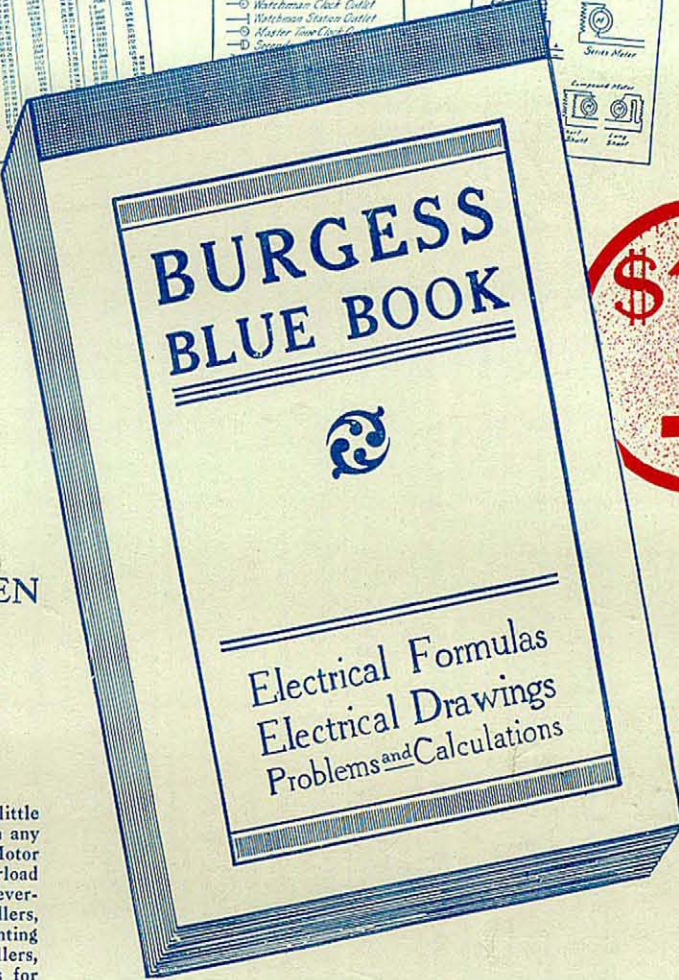
**ELECTRICAL UNITS**

**Notes of Units**

The electrical units are the units used in electrical calculations. They are the units of electrical quantity, and they are the units of electrical power. The electrical units are the units used in electrical calculations.

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