



The Devolutionist

Flint, Homer Eon

Published: 1921

Categorie(s): Fiction, Science Fiction

Source: <http://en.wikisource.org>

About Flint:

Homer Eon Flint (1888 as Homer Eon Flindt –1924) was a writer of pulp science fiction novels and stories. He began working as a scenarist for silent films (reportedly at his wife's insistence) in 1912. In 1918 he published "The Planeteer" in All-Story Weekly. His "Dr. Kinney" stories were reprinted by Ace Books in 1965, and with Austin Hall he co-wrote the novel *The Blind Spot*. Reportedly he died as a result of an involvement in a bank robbery attempt. According to his granddaughter the only witness, was himself a gangster. Source: Wikipedia

Also available on Feedbooks for Flint:

- *The Blind Spot* (1921)
- *The Lord of Death and the Queen of Life* (1919)
- *The Emancipatrix* (1921)

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Chapter 1

Out of their Minds

"Remember, now; don't make a sound, no matter what you see!"

Mrs. Kinney eyed her caller anxiously as they came to a pause in front of the door. His glance widened at her caution, but he nodded briefly. She turned the key in the lock.

Next second the two stepped softly into the room. Mrs. Kinney carefully closed and locked the door behind them; and meanwhile the man, peering closely into the shadows of the place, made out a scene of such strangeness that he nearly forgot the woman's injunction.

The room was the private study of Dr. William Kinney. In itself, it was not at all out of the ordinary. Shelves of books, cases of surgical and psychological instruments, star charts, maps and astronomical apparatus—these told at once both the man's vocation and avocation. With these contents and rather severe furnishings the room was merely interesting, not remarkable.

But its four chairs certainly were. Each of them was occupied by a human being; and as Mrs. Kinney and her caller entered, neither of the four so much as stirred. They were all asleep.

In the nearest chair was the doctor himself, half sitting and half reclining; in fact, all four of the sleepers were in attitudes of complete relaxation. The doctor's gray head was resting on one shoulder wearily.

On his left was a man of medium height and commonplace countenance. "Mr. Smith," whispered Mrs. Kinney, placing her mouth close to the caller's ear, so that he might hear the better.

Opposite these two sat a man and a woman, their chairs placed close together. The one was a slender, well-dressed, boyishly good looking young woman of perhaps thirty; the other a large, aggressively handsome fellow possibly five years older. "Mr. and Mrs. Van Emmon," explained Mrs. Kinney, still in a whisper.

The four sat absolutely motionless; the caller, looking very closely, could hardly make out the rising and falling of their chests as they

breathed. Also, he saw that they were all connected, the one with the other by means of insulated wires which ran to brass bracelets around their wrists. At one point in this curious circuit, a wire ran to a small group of electrical appliances placed on a pedestal at the doctor's side; while the caller was still further puzzled to note that each of the sleepers was resting his or her feet on a stool, the legs of which, like the legs of each chair, were tipped with glass.

After a minute of this the caller turned upon Mrs. Kinney in such complete bewilderment that she instantly unlocked the door, and again cautioning perfect silence, led the way into the corridor. Here she again locked the door. Upon leaving the spot, a quiet young man with keen gray eyes stepped from a room opposite, and at a nod from Mrs. Kinney proceeded to do sentry duty outside the study.

Once down-stairs and safely within the living-room—

"This is rather mean of you Mrs. Kinney!" protested the man. "Tell me all about it, quick!"

The lady complacently took a chair. "Well," she remarked innocently, "I knew you'd want to see him."

"Yes, but—"

"It serves you right," she went on blithely, "for staying away so long. Let's see—you left a year ago June, didn't you, Mr. Hill?"

He swallowed something and managed to reply, "Great guns, yes! I've been in the wilds of New Guinea for a year—without news of any kind! I saw my first newspaper on board the dirigible this morning!"

"Ah, well," commented Mrs. Kinney provokingly, "you'll have to be humored, I suppose." She cogitated unnecessarily long, then left the room to get a folio of newspapers and magazines. One of these she selected with great deliberation, and opened it at the leading article. Even then she would not hand it over right away. "You remember that sky-car idea of the doctor's, don't you?"

"His machine to explore space? He couldn't talk of anything else when I—you don't mean to say"—incredulously—"that he made a success of that!"

"He certainly did. Took a three weeks' tour of the planets, month before last!"

Hill stared in amazement, then leaned forward suddenly and whisked the magazine out of Mrs. Kinney's fingers. He held the paper with hands that trembled in excitement; and this is what he read, in the matter-of-fact black-and-white of *The Scientific New Zealander*:

STAR EXPLORERS RETURN

Dr. Kinney and Party Visit Venus and Mercury

Bringing proofs which will satisfy the most skeptical, Dr. William G. Kinney, G. Van Emmon, E. Williams Jackson, and John W. Smith, who left the earth on December 9 in a powerful sky-car of the doctor's design, returned on the 23rd, after having explored the two planets which lie between the earth and the sun.

They found Mercury to be a dead world, like the moon, except that it once supported a civilization nearly as advanced as our own. They tell of a giant human, a veritable colossus, who was the planet's last survivor.

But on Venus they discovered people still living! They are marvelously developed people, infinitely more advanced than the people of the earth, and enjoying a civilization that is well-nigh incredible. Among other things, they have learned how to visit other worlds without themselves leaving their planet. They do it by a kind of telepathy; they know all about us here on the earth; and they have accumulated data regarding the peoples of hundreds of thousands of other planets! The four explorers are able to prove their statements beyond the shadow of doubt. They possess photographs which speak for themselves; they have brought back relics from Mercury and materials from Venus, such as never existed on the earth. They submit a vast library of extraordinarily advanced scientific literature, which was given to them by the Venusians.

The article went on to detail, to the extent of some eight or ten pages, the main features of the exploration. Hill, however, did not stop to read it all just then. He looked up, his thoughts flying to the strange scene in the room up-stairs. "What are they doing—recuperating?"

"Not exactly." Mrs. Kinney was a little disappointed. "Here—let me point out the paragraph." And she ran a finger down the column until it indicated this line:

Among other things they have learned how to visit other worlds without themselves leaving their planet. They do this by a kind of telepathy.

"That's the explanation," Mrs. Kinney said quietly. Hill fairly blinked when he read the paragraph. "They are trying out one of the Venusian experiments?"

"Of course; you know the doctor. He couldn't resist the temptation. And I must say the others are just as bad.

"Mr. Smith is quite as much interested as Mr. Van Emmon. Mr. Smith is an electrical engineer; the other man is a geologist, and a very adventurous spirit. As for Mrs. Van Emmon—"

"But this account mentions"—Hill referred to the magazine—"E. Williams Jackson.' Who was he?"

"She—not he. Mrs. Van Emmon now; she used to be an architect. She had the other three fooled for ten days; she passed herself off as a man!"

But Hill was too absorbed in the general strangeness of the affair to note this amazing item. He again glanced at the article, opened his mouth once or twice as though to ask a question, thought better of it each time, and finally got to his feet.

"Let me have this?" referring to the magazine.

Mrs. Kinney handed over the rest of the collection.

"I am sure the doctor would want you to read them. I remember he said, just before they started away, that he wished you could have gone with him."

"Did he?" much pleased. Hill made some affectionate remark, under his breath about "the star-gazing old fraud"; then, evidently in a hurry to get off by himself and read, he made his excuses and left the house.

Mrs. Kinney returned to the book she had been reading, glanced at the clock, and noted that it was almost at the hour, previously agreed upon, that she should arouse the four up-stairs. She put the book down and started toward the stairs.

At that instant a large gong sounded in the hall. In the study up-stairs, the doctor's hand moved away from a pushbutton. He stirred in his chair; and as he did so, the other three awakened. First Van Emmon, then "Billie," his wife, and lastly the engineer.

Next second all four were sitting bolt upright, and looking at each other eagerly.

Chapter 2

Back on Earth

"Talk about results!" Billie was first to speak. "Why—where do you suppose I found myself? Out in mid-ocean, in a small boat, with the spray flying into my—that is, into the face of—" She broke off, confused.

"Your agent?" the doctor put in. All Billie could do was to nod; Van Emmon was bursting to talk.

"My agent was a Parisian apache, or I'm a bum guesser! I didn't catch all that was going on, but it certainly sounded like the plans and specifications of a garroting!"

"No such excitement here," said Smith. But his eyes were sparkling. "I was going the rounds with a mail-carrier. How do you explain that, doc? I've never given mail-carrying a second thought."

"That would have nothing to do with it. As for myself, I was looking through the eyes of some member of the House of Representatives, in Washington. I recognized the building. They were calling the roll at the time."

He paused while he made a note of the incident, for the sake of checking up the hour with the newspaper accounts later on. Then he rubbed the knuckles of one hand in the palm of the other—a habit which indicated that a diagnosis was going on in his mind. The others waited expectantly.

"There's a big difference," commented he, thoughtfully, "between these experiences and our last experiments. Then, each of us knew exactly what to expect. Each had a definite image of a certain particular person in mind when he went into the teleconscious state. That made it comparatively easy for us to communicate the way we did, even when you"—indicating the bride and groom—"were still in Japan.

"But to-day neither of us had the slightest idea what was coming. That is, if we followed the rule. Did you"—addressing Smith—"take care to concentrate strictly upon the one idea of view-point?"

"Nothing else. I kept my attention fixed upon eyes and ears, only, just as the instructions read."

"Same here," answered Billie, for herself and the geologist.

"Then we know this much: So long as the four of us are connected up in this fashion"—holding up his braceleted wrists—"we combine our forces to such an extent that we do not need a definite object. It's simply the power of harmony."

Billie was anxious to get it down pat. "In other words, there's nothing to prevent me from locating some one, although unknown to me, so long as we four agree upon the same locality?"

"That's it exactly. If we agree to concentrate upon Greenland, even, we shall find four people there whose view-points resemble our own. The main thing is to find similar view-points."

There was some discussion along this line, in which the doctor made it clear that view-point was simply another name for perspective, and that it had nothing whatever to do with actual mental accomplishments. The view-point was really the soul.

"As yet," he went on, "we should make no attempt to 'put ourselves in the other fellow's place.' Such efforts require a violent exertion of the imagination, and we need practice before tackling the more advanced problems.

"Time enough, after a while, to get in touch with the Venusians. There's none of them that has a view-point like ours. And once we've done that—"

"What?" from Billie, breathlessly.

"Anything! The whole universe will be open to us! Why, I understand from reading these books"—indicating the Venusian manuscripts—"that there is such a thing as an intelligent creature, so utterly unlike ourselves that—" He stopped short.

"For the time being," said Smith quickly, "we'd better be content with something familiar. Is there some other planet in our solar system that would do, doc?"

"No. According to the Venusians, the only others that are habitable besides Venus and the earth, are Mars and Jupiter. And it seems that the people on these two are so totally different—"

"We couldn't get an answer?"

"Very unlikely. Besides, I am having the cube refitted for a two-months' cruise. Rather thought I'd like to visit Mars and Jupiter in person.

"But when it comes to leaving the solar system entirely the telepathic method is the only one that will work; even the nearest of the fixed stars is out of the question."

"How far is that?" Smith inquired.

"The nearest? About four and a half light-years."

"Yes, but what's a light-year?"

"It amounts to sixty-three thousand times the distance from here to the sun!"

Smith whistled. "Nothing doing in the cube, that's sure. Besides, could we expect to find any people like us in the neighborhood of that star?"

"Not Alpha Centauri." The doctor reached for one of the Venusian books, and pointed out certain pages. "It seems that the Class IIa stars—that is, suns—are the only ones which have planets in the right condition for the development of humans. The astronomers already suspected as much, by the way. But the Venusians have definitely named a few systems whose evolution has reached points almost identical with that of the earth.

"Now, until we have acquired a certain amount of ability"—examining the books more closely—"our best chance will lie in the neighborhood of a giant star known to us as Capella."

"Capella." Billie had drawn a star-chart to her side. "Where is that located?"

"In Auriga, about half-way from Orion to the Pole Star. She's a big yellow sun.

"At any rate, the Venusians say that this particular planet of Capella's has people almost exactly the same as those of the earth, except"—speaking very clearly—"except that they have had about one century more civilization!"

Billie exclaimed with delight. "Say—this is going to be the best yet! To think of seeing what the earth is going to be like, a hundred years from now!"

Instantly Van Emmon's interest became acute. "By George! Is that right, doc? Are we likely to learn what the next hundred years will do for us?"

"Don't know exactly." The doctor spoke cautiously. "That's merely what I infer from these books."

"If we do," ran on the geologist excitedly, "we'll see how a lot of our present day theories will be worked out! I'm curious to see what comes of them. Personally, I think most of them are plain nonsense!"

"That remains to be seen." The doctor glanced around. "Remember: what we want is the view-point only; and the place is Capella's planetary system. Ready?"

For answer the others leaned back in their chairs. The doctor touched the button at his side, as a signal to his wife; he settled himself in his chair; and in a minute his head was dropping over against his shoulder. In another second the minds of the four experimenters were out of their bodies; out, and in the twinkling of an eye, traversing space at absolute speed.

For thought, like gravitation, is instantaneous.

Chapter 3

Smith's Mind Wanders

Secretly Smith hoped he might find an agent who also was an engineer. He had this in mind all the while he was repeating the Venusian formula, the sequence of thought-images which was necessary to bring on the required state of mind. The formula had the effect of closing his mind to all save telepathic energy, and opening wide the channels through which it controlled the brain.

No sooner had he repeated the words, meanwhile concentrating with all the force of his newly trained will upon the single idea of seeing and hearing what was happening on the unknown, yet quite knowable planet—no sooner had his head sunk on his chest than he became aware of a strange sound.

On all sides unseen apparatus gave forth a medley of subdued jars and clankings. A variety of hissing sounds also were distinguishable. And meanwhile Smith was staring hard, with the eyes he had borrowed along with the ears, at a pair of human hands.

These hands were manipulating a group of highly polished levers and hand-wheels. So long as his borrowed sight was fixed upon that group Smith was entirely ignorant of the surroundings. All he could surmise was that his agents operated some sort of machinery.

Then the agent glanced up; and Smith got his first shock. For he now saw a cluster of indicating dials, such as one may see on the instrument board of any automobile; but the trained engineer found himself absolutely unable to interpret one of them. They were marked with unknown figures!

Nevertheless, the engineer received an unmistakable impression, quite as vivid as though something had been said aloud. "Progress; all safe," was the thought-image that came to him.

He listened closely in hope of hearing a spoken word. Also, he tried his best to make his agent look around the place. Other people might be

within sight. However, for a couple of minutes the oddly familiar hands kept manipulating the unfamiliar instruments.

Then, somewhere quite close at hand, a deep-toned gong sounded a single stroke. Instantly the agent looked up; and Smith saw that he was inspecting the interior of a large engine-room. He had time to note the huge bulk of a horizontal cylinder, perhaps fifty feet in diameter, in the immediate background; also a variety of other mechanisms, more like immensely enlarged editions of laboratory apparatus than ordinary engines. Smith looked in vain for the compact form of a dynamo or motor, and listened in vain for the sound of either. Then, in swift succession, came two strokes on the unseen gong, followed by a shrill whistle.

Smith's borrowed eyes became fixed upon that group of dials again. Their indicators began to shift, some rapidly, some slowly. Once the agent gave a swift glance through a round window—the place seemed to be lighted by ordinary daylight—and Smith saw something unrecognizable flit by.

A little further progress, and then came three strokes on the gong, followed by a low thrumming. In response to these, the agent deliberately picked out two levers, and pulled them down. When his glance returned to the dials, one of them showed immense acceleration.

By and by came another triple clanging, another pair of levers was pulled down, and instantly the jarring and clanking gave way to a decided rumble, low and distinct, but so powerful that it shook the air. At the same time the agent quit his post and went over to the giant horizontal cylinder.

Now Smith could see that this vast structure was merely part of an engine whose dimensions were quite beyond any former experience. It was a simple affair, being merely a reciprocal machine like the most elementary form of steam engine. But, instead of being operated by steam, it was a chemical machine; Smith's trained eyes told him that the cylinder was really an enormous retort. And he noted with further perplexity that the prodigious piston-rod not only moved with terrific speed, but in a strictly back-and-forth motion; its far end did not revolve.

The agent seemed satisfied with it all. He turned about and walked—so far as Smith could sense in the usual manner of earth's humans—back to the dials again. Just then a door opened a short distance away and another man entered.

Smith would have mistaken him for the employee of some garage. He was dressed in a suit of greasy blue overalls; and as he advanced toward the eyes Smith was using, he looked about the room with practiced

glance. He merely nodded to Smith's man, who returned the nod just as silently; and such was the extreme brevity of it all, Smith was afterward unable to describe the man.

His agent, thus relieved of his duty temporarily, strolled out another door, which took him through a narrow corridor and another door, opening on to some sort of a balcony, or deck. Smith fully expected to look upon an ocean.

Instead, he found himself gazing into a sea of clouds. He was in some sort of aircraft!

Next moment, quite as though it had all been prearranged, a large sky-cruiser hove into sight perhaps a quarter of a mile away. It seemed to materialize out of the clouds, and rapidly bore down upon the craft in which the agent stood.

But the practical man of the earth was eying the air-ship in increasing amazement. For it was truly a ship; a huge vessel wonderfully like one of the old-fashioned freighters which used to sail the seas of the earth. What was more, it had four tall, sloping masts, each spread with something remarkably like canvas; and that whole incredible hulk was actually swinging in mid air!

Looking closer, Smith saw that the masts were exceedingly tall; they held enough canvas to propel ten ships. And each stick sloped back at so sharp an angle—much sharper than forty-five degrees—that the wind not only blew the craft along in its course, but actually supported it as well.

It meant a wind which would make a hurricane seem tame. Either that, or air with greater density than any Smith knew about.

Suddenly the cruiser came about into the wind, and at the same instant it began to take in sail, all the sheets furling in unison. Simultaneously great finlike wings shot out of slits in the sides of the hull; and immediately they began to beat the air, back and forth, back and forth, with the speed and motion of swallows.

So this was the meaning of the giant reciprocal engine! Instead of the screw propeller which characterized earth's aircraft, these vessels employed the true bird principle, combining it with the simple methods of primitive sailing craft.

As soon as the ship stopped its wind-driven rush and began to employ its wings, the speed straightway slackened; and the ships began to descend. About the same time the figures of several people appeared on what might be called the bridge; and assuming that these people were as

large as the man whom Smith had seen enter the engine-room—a chap of average height—then that ship, in proportion, was all of a mile long!

But Smith's awe was not shared by his agent, who turned indifferently away and looked about the sky as though in search of other sights. In doing so, he leaned over the deck's railing; and Smith saw the sheer sides of the giant ship, extending fore and aft almost indefinitely; while far overhead billowed vast clouds of white cloth. The vessel was now under sail.

About a mile higher up, and almost that distance to one side, the agent's eyes made out two tiny specks. He watched them closely for a moment as they pitched and tossed queerly about; then darted into the engine-room, secured a pair of binoculars of an old, squat pattern, and swiftly focused upon the nearer of the two.

Smith instantly sensed a disaster. The object was a small air-craft, of a sort entirely strange to the engineer; yet he knew that it was disabled. One of its queer wings was broken and fluttering, as the little machine dropped, tumbling and twisting erratically, in an inexplicably slow fashion toward the unseen ground. Smith glimpsed a single figure, presumably strapped in the seat.

Then the focus changed to cover the other machine. It was of the same type; and Smith saw that it was swooping in a steep spiral, its driver leaning over in his seat, looking down.

Next moment the two were in focus together. Every second they dropped closer and closer to Smith's borrowed eyes. And in less time than it takes to tell it, they had come so close that when the occupant of the disabled craft lurched heavily to one side, Smith could plainly make out the long, flying hair of a woman.

She was unconscious, and strapped in!

Her craft capsized. At the same time the other driver—a man—maneuvered so as to spiral exactly around the wreck as it fell. When it came right side up again—now only a half a mile away—he drove down so close that his machine nearly grazed the woman's head. As he did so, he leaned over and tried to unfasten her. But the unsteadiness of her craft prevented this.

He made a second try. This time his own machine narrowly escaped injury; he steered it hastily away from that damaged wing. And then he made a supreme effort.

Bringing his machine directly across the top of the other as it once more righted itself, he touched one of his controls, so that his own flier's spiral increased in steepness. Straightening up, he poised himself while

he coolly measured the distance; and then he calmly leaped a matter of ten or twelve feet, over and down to the top of the other craft.

The shock of his landing steadied it. Clinging fast with one hand, the man bent and unbuckled the woman's strap. Next instant he had lifted her, a dead weight, into his arms and then over his shoulders.

His own machine was still scooting downward, its speed even greater than that of the broken flier. When the man saw it swinging past and below him, he instantly clambered, burden and all, to the edge of the cockpit. For a second he stood, balancing precariously; and then, half jumping, half diving, he plunged once more.

Man and woman landed in a heap in the sound machine. In a flash the rescuer snatched his controls, and tried with all his might to "straighten out." But it began to skid; and Smith saw, despite the shakiness with which his excited agent held the binoculars, that the craft was hopelessly out of control. Next instant the man caught sight of the ship, not a hundred yards away; and steered straight for her.

Smith's agent rushed back to the engine-room, where he immediately located a new group of instruments. Smith recognized a telephone and some wireless apparatus; then found himself staring into some sort of a compound mirror system. Probably it was an illuminated tunnel affair, opening into a long white cabin. Seemingly the place was an emergency-ward.

A moment later the unconscious forms of the two aviators were brought within perhaps twenty feet. Smith could hear nothing; the apparatus seemed made for looking only. But he saw the doctors hurry in, saw restoratives administered, and saw both people revive.

The man was first to become conscious. He looked around, seemed to take in the situation at a glance, and swiftly got to his feet. The doctors laid restraining hands upon him, but he shook them off with a laugh.

He was a powerfully built man, considerably taller than normal and very deep in the chest. He was decidedly blond, and good looking in a cheerful, reckless sort of way.

His concern was for the woman. She regained her senses in half a minute, and shortly was sitting up and looking around. And Smith, ordinarily unobservant of the other sex, found himself staring with all his eyes.

She was young; for that matter, the man was under thirty, also. And the white bandage on her forehead only emphasized the dark eyes and vivid coloring of her face. Smith was half angry that he could not see her more distinctly. He decided that every feature was exquisitely modeled,

that he had never seen such delicate lines, nor eyes as large, as appealing and as soft.

Then he was watching the man again. He approached the woman and took her outstretched hand. He was laughing easily; she, smiling tremulously and gratefully. They looked into one another's eyes quite as though there were no one else in the cabin to be looked at. Next second one of the doctors stepped up bruskiy, and Smith saw a swift blush come to the girl's cheeks. The man reddened, too, and turned away laughing to hide his confusion.

Smith's connection with his agent ended right there. When he reported to the other three, later on, he had to admit that, so far as he knew, the man and the girl were still holding hands.

Chapter 4

New Hearts for Old

Billie's experience was totally different. She found herself transformed into a mental humming-bird.

Her mind seemed to be darting with infinite rapidity, here and there throughout the universe. She got only the most lightninglike glimpse of any one spot; flash after flash of unfamiliar, indescribable situations succeeded each other like the speeded-up scenes of a photoplay farce. For an unguessable length of time this helter-skelter process occupied her mind.

Then there came a scene which stayed. It was dim at first; she was more thoroughly aware of the sound of voices than anything else. Then she saw clearly.

She—that is, her agent—was in some sort of a room, giving instructions to a group of white-clad figures. Before Billie could concentrate upon what was being said the talk ceased; and next moment, amid perfect silence, the agent bent over something which lay on a high table.

Whereupon Billie got a severe jolt. For, unless she was most woefully mistaken, the thing she was now looking at was the unconscious form of a patient; the place was the operating-room of a hospital; and the eyes she was using belonged to a surgeon.

She watched breathlessly. The surgeon's nimble fingers proceeded with the utmost unconcern to open wide the patient's torso. Other pairs of hands, belonging to nurses, aided in this; and Billie found the intricate process decidedly interesting rather than otherwise. Of course she was spared the odor of blood.

As soon as the ribs were entirely displaced, the lungs were carefully laid aside. Extraordinary delicacy seemed called for here. Billie shortly began to wonder if it were not high time to quit when her agent, assisted as before, calmly exposed the patient's heart to full view.

Billie could see it throbbing; more, she could hear it. She watched in wonder for the next step.

They consisted in forcibly untangling the mass of tubes and arteries all about the organ. Presently everything was clear; and then, without delay, the nurses brought forward a strange-looking device.

It was of silver, shaped like a flattened egg, and a trifle smaller than that laboring, human blood-pump; To it was attached a pair of long, flexible, silver pipes, which led to Billie knew not where. And near one extremity the egg was provided with eight curious nozzles.

At times the flying hands partly interfered with Billie's vision; yet she saw nearly all that amazing process, from beginning to end. To put it briefly, the eight nozzles were boldly introduced, almost at a single operation, into tiny incisions in the eight corresponding tubes of the heart. In they were forced, until they filled the arteries and veins; and once inserted, silver clamps were instantly tightened on the outsides of the tubes. All this was done in two or three seconds; and when all was complete, the heart itself had been entirely isolated and its place absolutely taken by that little silver egg.

The patient gave no sign that anything out of the ordinary had occurred. Not a drop of blood had been spilled except in the process of getting at the organ; but now, with a few deft motions of certain instruments, the heart was sliced away from the surrounding tissues, the tubes were severed, and the whole powerful pump, still beating faintly, was removed from the body altogether.

Next, the surgeon proceeded to stanch the bleeding of the tubes; that is, of the stubs projecting below those tight silver nozzles. This done, the nimble fingers calmly replaced the lungs and other items, quite as though they were reassembling a piece of machinery. Lastly, the opening was sewed up in a manner which would have delighted any seamstress.

The two long silver pipes were left protruding. Now, for the first time, Billie saw where they led to.

On a stand alongside the operating-table stood an extremely small, flat box, with its lid open. The pipes ended there. And as the surgeon inspected the outfit Billie saw that it comprised, in effect, a pair of diminutive air-pumps. There were two tiny dials, a regulating device, some sort of an automatic electric switch, and what looked like a steel storage tank; all on a watchlike scale.

Looking more closely, Billie made out two pairs of electric wires running from this case to another of the same size. The surgeon lifted its lid, disclosing two electric storage batteries, each with its own circuit.

In short, the arrangement provided duplicate sources, in vest-pocket size, of power for operating a mechanical heart. The electricity worked

the air-pumps, which in turn supplied the little silver egg—implanted in the patient—with both pressure and vacuum, while doubtless the artificial organ itself housed a valve system which did the rest. The regulating device kept the blood circulating at the proper rate.

The surgeon seemed satisfied with it all, and, after another critical examination of the patient, glanced about the room, straightened up, took a deep breath, and spoke:

"Quick work. Thanks very much, everybody."

And Billie did not know which to be the more astonished at: the fact that the voice was unmistakably a woman's, or that she, Billie, was able to understand all that was said. She did not fully appreciate until afterward that it was her own brain which did the translating; the surgeon's subconscious mind had merely furnished a thought-image which would have been exactly the same, regardless of language.

"Any special instructions, Surgeon Aldor?" inquired one of the white-clad, face-swathed figures.

"No. The usual handling. Simply keep the batteries charged in rotation."

The surgeon took off a mouth mask and a blood-soaked apron, and then swiftly washed her hands. Next she stepped briskly from the room; and the architect who was using her eyes rejoiced to see the door-knobs of the standard height of thirty-five inches, indicating that this agent of hers was of about her own height. From the sound of her footsteps, however, Billie concluded that she was somewhat heavier than herself.

Reaching another room, the surgeon proceeded to don hat and coat. Next, she stepped in front of a long mirror; but the action was so quick, and it took Billie so completely by surprise, she was not able to inspect the image closely. To be frank, she looked first at the woman's clothes, finding that her suit was a very trim affair of blue leather, cut in a semi-military fashion. Slashes of dark-red material across the sleeves were repeated about the collar, while the cap, a jaunty affair with a bell crown, matched the suit. The lower ends of the breeches, much like ordinary riding trousers, were tucked into high lace-up boots of red leather.

Before Billie could see any more other than that the surgeon was small-featured in striking contrast to the robustness of her body, she stepped from the room. A moment later an automatic elevator took her to a lower floor, where she was greeted by a person whom Billie assumed to be a head nurse.

"Anything out of the ordinary, surgeon?"

"No," with a brusqueness which was startling by comparison with her cheeriness upstairs. "I understand that Dr. Norbith wishes to go home as soon as possible?"

"Yes."

"He may go as soon as the cast is hard. Make sure his machine is a smooth one."

The nurse simply nodded as the surgeon stepped on, through a very ordinary pair of sliding doors, and so on out into an anteroom and thence to a porch, where she stood looking into the street for a moment.

It was exceedingly broad, and lined on both sides with imposing structures whose architecture was entirely strange to Billie. She would liked to have examined them all in detail; but she had no control over her agent, who straightway walked down a short flight of steps and thence to a sidewalk.

Here Billie became perfectly willing to neglect the architecture. People were coming and going; people apparently quite as human as herself. Except for a certain gorgeous voluminousness of dress, they seemed for the most part simply men and women of affairs.

For it was comparatively easy to distinguish the sexes. The women's garments, while not making any display of the strictly feminine lines, nevertheless did not attempt to disguise them. Billie saw that loose breeches had completely displaced the skirt with these women; while the men invariably wore either knickerbockers or some other form of short trousers; so that the general effect was very youthful. She saw no men with beards, although several wore their hair long, down to their shoulders, as though to compensate for those women who chose to wear theirs short.

The surgeon seemed to have more leisure than most doctors. She stood for some minutes, greeting perhaps a score of passers-by, all of whom seemed to be proud of the acquaintance. Presently, however, the sidewalk became temporarily clear of pedestrians; and then Billie heard the surgeon mutter something to herself, such as was past all understanding at the time:

"The fools! The poor, ignorant cattle!"

And she turned and stepped to the middle of the street, where Billie had already marked a large number of flying-machines. In fact, the space from curb to curb was practically filled with them, all neatly parked.

Without exception they were ornithopters; that is, machines built on the bird-wing principle, sustaining themselves by a flapping motion rather than by air-pressure due to a propeller. Their size varied from

one-seater affairs of very small size to craft large enough to hold a score. Most were gaudily painted.

The surgeon's own machine was a two-seater, small but powerful in design. She stepped up a short ladder into a comfortable cockpit, provided with a folding top, which at that time was laid back out of the way. She proceeded to adjust various levers and hand-wheels, glanced at certain dials, touched a button, and immediately the craft took flight, its wings beating the air with a dull leathery rhythm which drowned out the faint clanking of the machinery.

A moment later the flier was high above the street. To Billie's disappointment, the surgeon did not glance down enough to tell the architect whether the street belonged to a city of any size. Instead, her agent drove carefully through the traffic, which Billie would have called dangerously dense. She remembered that she had seen nothing but aircraft in that street; no automobiles at all.

And then the flier was rushing through the air at a lively rate. Billie caught quick glimpses of innumerable machines, few of which were moving in the same direction as the surgeon's.

A few minutes more elapsed, and then Billie was experiencing a much higher level, with the machine flying at what must have been a tremendous velocity. Shortly it was all but alone in the sky.

After a while the surgeon's eyes made out something far below, which puzzled Billie exceedingly. It seemed to be a ship under full sail; only, so far as she could see the craft was resting upon clouds, not air. It was still a long way ahead.

And then Billie was given a glance aloft, where she saw another craft, a small flapping affair like the surgeon's. It was just rising on a long slant so as to cross above her course. And at that very instant there came a sharp crack, followed by a splintering crash. The surgeon's flier lurched heavily to one side.

Next second the woman was staring at her left wing. It was broken about the middle and thrashing wildly. Another instant, and a part of the thing came loose, flew off, and struck the surgeon on the top of her head. A muffled cry, and then blackness came.

And the next thing Billie saw was the emergency ward of Smith's great skycruiser, with the surgeon, blinking as she recovered, looking up into the smiling face of her big blond rescuer.

Chapter 5

Capella's Daughter

The first thing that met the doctor's gaze, when his mind entered that of his distant agent, was a clock. It was a very ordinary sort of an instrument, such as one sees in schools and offices; it had two hands, and a pendulum of the usual size and length.

However, this pendulum was swinging at a very rapid rate; nearly twice as fast, judged the doctor, as that of his own chronometer. And its dial was divided into twenty-five equal parts, instead of twelve, each of these parts being further divided into five equal portions. At the moment, these two hands indicated what would have been called, on the earth, about half past three.

Before the doctor could speculate on this, his unknown agent shifted his gaze to a newspaper on a desk before him. Apparently he was thinking of something entirely different; for he absently turned the pages, one by one, his subconscious mind taking it all in.

And the doctor saw that the paper was called simply *The Hourly Journal*; that it was of very nearly the size of most sheets; and that it consisted of about ten pages. The front and back pages, only, contained news items; the remainder were packed solid with advertisements. Not one of these were striking enough for the doctor to remember; he said they were exactly like large-size professional "cards," except that they applied to every business, from candy to bridges. As for the news items, each was short, unsensational, with the simplest kind of headlines. More the doctor had no chance to observe.

Abruptly the agent stowed the paper away, and looked up. Presumably he was seated in some sort of a theater. Directly ahead was the familiar white rectangle of a photoplay-house screen. And all about him were heads and shoulders, seemingly belonging to young folks, of about high-school age. Even to "low necks" for the girls and white collars for the boys, they were identically like people of the earth.

In fact, if it had not been for that clock the doctor would have concluded that there was some mistake, and have ended the experiment. For some time he learned little; the place was filled with a confused murmur. His agent, however, took no part in the conversation that produced this effect; once or twice he yawned.

Suddenly the buzz came to a stop; and next moment a tall figure stepped upon the platform in front of the screen.

"Class," began this person immediately, "to-day we will summarize what we have learned during the past week about the solar system of which our planet is one element."

And as he spoke the doctor saw that there had been no mistake. For, although the agent's subconscious mind had served to translate what was said into language understandable by the doctor, yet his eyes plainly told him that the professor's lips were saying something else.

There was no doubt about it. For all that the doctor could tell by watching the speaker's mouth, he might have been talking in Eskimo. But his meaning was quite as clear as though he had said it in English.

"We will begin with a picture of the sun herself." As the words were spoken, a motion-picture film was projected on the screen. The doctor instantly noted the natural colors, stereoscopic effect, and marvelous clearness, such as branded this exhibition as not of the earth. But the professor was saying:

"The sun controls, besides this world, no less than thirty others"—and the doctor knew, as well as other people know their A B C's, that the earth's planetary family consists of only eight—"no less than thirty others, of which eight are now without life." The speaker turned toward a student on the far left. "Tell us how many of the thirty are still too hot to support life, Miss Ballens."

The girl did not get to her feet. "Ten," was her answer.

"Which leaves, of course, twelve besides our own planet which now possess life in one form or another. Mr. Ernol, can you give us some idea of conditions on any one of these?"

To the doctor's immense satisfaction, the brain whose loan he was enjoying responded to the question. "On Saloni, the vertebrates have not yet appeared. None but the lowest forms of life have been found."

"Is this planet larger or smaller than ours, Mr. Ernol?"

"Larger. It will be a matter of millions of centuries before such beings as humans are evolved there."

"How do we know these facts?"

As though it were a signal, the entire class, with one accord, uttered a single word: "Runled!"

And the doctor found his agent's eyes turned, together with those of every other student in the room, toward the portrait of a highly intellectual-looking man; it hung in the most conspicuous spot on the wall.

"We must never forget," continued the man on the platform, "that, but for the explorations of this man and his space-boat, some eighty years ago, we should know very little. Can any one tell me why his explorations have never been repeated?"

Two hands went up. The professor nodded to a girl seated next to the young fellow whom the doctor now knew as "Ernol." This girl spoke very clearly: "Because the expedition was extremely costly, and the commission has never been willing to appropriate enough to duplicate the work."

"The commission's judgment is, of course, sound," commented the professor calmly. Then he signaled for a change in the picture, which had been showing, in rapid succession, glimpses of world after world. The new picture was more leisurely.

"The planet Alma. Can any one explain why it is of special interest to us?"

For a moment there was no comment, and the doctor found himself studying a "panorama" of some exceedingly striking people. There was quite a crowd; and the doctor was amazed to note how much like the Venusians they were. Without exception they were delicately built, with thin, shriveled legs; all were seated, none standing, in cigar-shaped aircraft of a type entirely new to the doctor.

"The people of Alma," spoke up a boy out of sight of Ernol, "are especially interesting to us because they are, so far as is known, the most highly developed beings in existence."

"In what way are they like us?"

"They are vertebrates, mammals, primates, just as we are."

"And how do they differ from us?"

"They are 'cooperative democrats'; that is, they do not compete with each other for a living, but work together in all things, in complete equality. In this way they have become so wonderfully advanced that—"

The professor interrupted. "We will not go into that." The scene shifted from people to things: a large, complicated-looking column of some sort was being shown. "What does this tell us?"

"It tells us," spoke up some one, "that Alma is entirely surrounded and covered by a great roof, which stands several miles above the surface."¹

"What is the purpose of this roof?"

"To keep in the air and moisture, which all other planets are steadily losing. Alma is a much older planet than ours, which is why her people are so far advanced."

Next came "close-ups" of some inhabitants. At once the doctor saw that these were not Venusians; they had facial expressions as sour and cynical as the typical Venusian's had been pleasant and wise.

"You will note," commented the professor very quietly, "that these people are far from happy."

The class seemed to take it for granted; but the doctor's trained ears instantly caught a false note in the speaker's voice. Was the man sure of his statement?

At the same time the doctor became aware of a certain dullness in the vision he was borrowing. Also, the speaking became much less distinct. It occurred to him that the boy might be drowsy; and an unmistakable nodding shortly made this certain.

"As we see from these photographs," droned the voice on the platform, "happiness does not exist on Alma. And if not there, where else can we expect to find it? Certainly not among the less developed planets.

"So we must conclude that ours is the only world where the people are truly happy. We must thank the commission for the peculiar distinction which we enjoy. Ours is the only civilization which guarantees happiness to all; these pictures prove it for us."

At that instant young Errol lifted his head with a jerk. "How do we know," he demanded, "that these photographs were not very cunningly selected to give us a wrong idea? Perhaps they lie, professor!"

Instantly consternation reigned. The professor fairly froze in his tracks, while every eye in the room was turned in amazement upon the lad.

"What!" exclaimed the speaker sternly. "Where did you get such an extraordinary notion, Mr. Errol?"

The boy had sat up straight, looking about uncertainly. He got unsteadily to his feet. "Why—" he stammered helplessly. "Why, I haven't any idea—What have I been saying, sir?"

The professor checked a hasty answer. He said quietly: "Do you mean to say you are unaware that you spoke just now?"

1. Compare with Venus. It would seem that, whenever a planet reached a certain age, its people will always take steps to preserve its atmosphere; that is, provided their civilization is high enough.

"Yes, sir. I mean—" The boy was badly puzzled. "To be frank, sir, I was almost asleep. I studied about Alma years ago. I know I said something, but as to what it was—"

"That will do." The professor made a sign, and Errol sat down, tremendously embarrassed. "The class will understand that people, when talking in their sleep, usually say things which are the exact opposite of what they know to be true."

The man wet his lips, as though with satisfaction at the neatness of his wording. He added in a generous tone: "I will not reprimand Mr. Errol, because his previous work indicates, as he says, that Alma is an old topic to him. I only wish that he stood as well in certain other studies!"

A ripple of laughter ran over the class, and again the puzzled youth was the target for the combined stares of the students. He slipped down deep into his seat.

"That will do for to-day," said the teacher, glancing at the clock. "Tomorrow we will begin the study of the other suns of the universe—what we commonly call stars.

"However, before you go"—his voice took on a certain ominousness—"let me remind you that it is the custom not to question the sources of our information. We take them for granted. In fact, it is more than a custom; the regulations require that any student who is not satisfied with the sincerity of our public school system shall be suspended for the first objection, and for the second shall forfeit all educational rights whatever.

"You will readily see for yourselves, then, that it will not be wise for any of you to repeat what Mr. Errol unconsciously let slip. And of course none of you will be so unkind as to remind him of what he said."

The students rose thoughtfully to their feet, and Errol passed out with the rest. He had no idea what it was all about, nor the slightest suspicion that his eyes and ears had been used.

But the doctor had learned something of enormous value. He had learned that, when his agent was in a semiconscious state, his—the doctor's—conscious mind could influence the agent.

It was not Errol, but the doctor, who had made the slip!

Chapter 6

The World's Bosses

Van Emmon was afterward unable to recall any experience between his entering the sublimial state and becoming tele-conscious. That is, his only recollection was of a definite scene, experienced through the eyes and ears of his agent.

The place was a large high-ceilinged room, its architecture suggesting some public building. In the center, and directly in front of Van Emmon's agent, stood a large, rectangular table, about which sat a number of men. Van Emmon counted nine of them.

The whole atmosphere was solemn and important. Van Emmon was reminded of old photographs of cabinet meetings in Washington, of strategy boards during the great war. He listened intently for something to be said.

Near the foot of the table—Van Emmon's agent sat at the head—a tall man with an imposing, square-cut beard rose to his feet. He gazed at each of the other eight in turn, significantly; and when he spoke the geologist was so impressed with the deadly seriousness of the scene that he forgot to be amazed at his ability to understand what was said, forgot to marvel that these men were, undeniably, human beings of exceptional character.

"Gentlemen," said the man who had risen, "I do not need to remind you of the seriousness of this occasion. I only wish to congratulate you, and myself, on the fact that we now have a chairman to whom we can look with confidence. I say this without meaning any reflection upon his predecessor."

He sat down, and immediately a white-haired man with a wide, complacent type of face arose and declared: "No reflection is felt, sir. On the contrary, I am exceedingly glad that Mr. Powart is to take my place. I only wish that the commission felt free to discard its rule of choosing by lots; I should like to present Mr. Powart with the chair for as long a period as he would care to fill it."

He took his seat amid a general murmur of approval, while nine pair of eyes were turned in unison upon the pair Van Emmon was sharing. His agent, then, was chairman of some sort of a council, known as "the commission."

Powart got to his feet. Even in this simple act his motions were swift and sure; they harmonized perfectly with the way he talked.

"Thanks, both you. To be frank, I am glad, for the sake of the association, that the youngest commissioner has come to its head at this time. If there were a younger than myself, I would say the same."

He paused and glanced at some memoranda in his hand. Van Emmon was struck, first, by the smooth skin and perfect formation of the hand and wrist; and, second, by the peculiar writing on the papers. He had no idea what it meant, although his agent certainly did. (Afterward the four concluded that, in the case of words written in code or otherwise requiring an effort of the agent's conscious mind, the people on the earth, being in touch only with the subconscious, were never informed. But they never had any trouble in understanding anything that was said aloud.)

"If there are any special matters which should be handled in general session, now is the time to bring them up," said Powart, and remained standing.

An undersized man with a remarkably large head of hair spoke up from the righthand side of the table: "I want to suggest that it is high time we sent another expedition to Alma."

"I agree," from the man who had been Powart's predecessor. Apparently these ten men had nearly dispensed with parliamentary rules. "What are the prospects, Powart?"

"First rate. Runled's old space-boat has been renovated recently, and I understand that enough of the required materials have been mined to insure one round trip."

"It is very fortunate that we shall be able to visit Alma again, even though we use up our entire supply in the attempt. It seems that we shall soon need, and need badly, certain chemical secrets which they alone possess."

"When can the boat start?"

"Within a week. I shall keep in touch with the crew by wireless, and advise you of their progress from time to time. Alma is a sort of a hobby with me; I wouldn't mind taking the trip myself."

There was a long pause. Powart waited, as though in expectation of further remarks, then gave another glance at his memoranda and began:

"Of course, we are mainly concerned with the demonstration in Calastia. As to its cause, I may mention that Eklan Norbith was in a hospital at the time, having a substitution. Had he been on the spot, the uprising would have been checked before any one heard of it.

"But it now seems that Calastia, during the last few hours, has become a seething hotbed of rebellion. Of course, we have isolated the district, and a search for arms is now in progress.

"The head of the recalcitrants is a man named Er nol. He takes his confinement as a matter of course, and no amount of pressure will induce him to talk. Neither can we get anything from his companions, nor from his son.

"It is up to us to decide what measures to adopt."

A large, pugnacious-looking man on the left put in the first comment. "Would it not be a saving of time to provoke violence, in one way or another, and thus form a pretext for disposing of the entire lot?"

"I admire your bluntness," remarked the former chairman across the table, "although I can't say as much for your philosophy. It is our duty to keep everybody contented; we cannot do any public weeding-out until the others are satisfied that the malcontents are really weeds."

"That is clear enough," spoke the shock-headed man. "What are the conditions, Powart?"

"Nearly normal. The percentage of overhead is only slightly higher than average. Until Er nol moved into the locality every one seemed contented with the regular arrangements."

"What is his contention?"

"The usual democratic nonsense. He claims that the commission is autocratic, down to its last deputy. Denies that we have the right to apportion one-half the earnings to the workers and the other half to the owners. States that our system is wasteful, unjust, and demoralizing."

"And what does he propose?"

"Democratic control of industry. You know—that old line of talk."

"Does he deny that the commission has abolished poverty and war?"

"No; but he points out that our present standard of living has not changed for generations, and argues that degeneration must result. Of course, he is right in his fact but wrong in his conclusion."

"Doesn't he admit the necessity of some sort of an international governing body?"

"Yes; but he claims that the commission should be elected by direct vote of the people!"

A general smile of derision greeted this. The only face that remained serious was that of the shock-headed man. He said:

"There must be a slip somewhere, Powart. Isn't there a heavy fine and imprisonment for teaching such stuff? How did Ernol ever get hold of the notion?"

"Probably through tradition. We can't keep people from talking to their own children; perhaps Ernol's great-grandparents told him of the days when every one was allowed to vote."

The shock-headed man got another idea. "What has the man to say against our system of voting in proportion to property interests?"

"Says it's all right in principle; but he claims that the earth belongs to one and all, equally, and therefore each should have an equal voice in its disposition and government."

This time there was no smiling. The pugnacious-looking man spoke for the rest when he said:

"We cannot allow such ideas to gain headway, Powart! Have you a plan?"

"We must keep a close watch upon Calastia, and allow no one to leave its borders. As for Ernol, I have concluded that the best thing will be—turn him loose!"

They looked at him in consternation. He explained:

"I have been reading up the experience of the past few centuries in such cases; and if there is one thing that stands out clearer than any other it is this: the surest way to make the public sympathize with a radical is to persecute him. But disregard him and ridicule him, and his philosophy doesn't last long.

"Instead of trying to make an example of this chap, by severely punishing him, we shall let him go. It may be that he will object to this; he may have discovered the same truths I have been reading, and would like nothing better than to become a 'martyr.' But we shall force him out, if need be."

"But suppose he continues his talking?"

"In that case we must simply watch our chance, and take him secretly; if need be, arrest a thousand others at the same time. The main thing is secrecy; so that the people cannot know, no matter what they may suspect, what has become of him. His final disposition will be a question of mere expediency."

The former chairman approved heartily. "You've got the right idea, Powart. Is there anything further on tap?"

Powart put his notes away. "Every national report is the same as usual; all quiet, and people apparently well satisfied.

"If there is no further business, we may consider ourselves adjourned."

The men got to their feet with the usual accompanying noises. The tall man with the square-cut beard immediately came and offered Powart his hand. Van Emmon noticed that they shook hands almost exactly as Americans would.

"Things seem to be coming your way, my boy," said the bearded man, his keen eyes softening slightly. "I saw the paper this morning. Congratulations! She is one girl in millions. Has she fixed the date?"

"No. Mona was rather taken by surprise—to be frank with you, uncle."

As Powart spoke, he was eyeing the door and nodding permission for an attendant to enter. The man stepped obsequiously forward and presented a message, for all the world like any ordinary aerogram. Powart opened it while his uncle signed.

The chairman gave a low whistle of surprise. "Mona had an accident with her flier, a little while ago, and was rescued by"—he looked closer at the aerogram—"a chap named Fort. She is now recuperating on board the Cobulus."

The tall man took the message and read it himself, while Powart glanced about the room. Van Emmon caught a glimpse of a clock, and he noted the pendulum especially. But before he could learn anything further, Dr. Kinney's hand jerked as before, and the gong rang. The four awakened.

They had been "visiting" over an hour.

A World Becalmed

"I think we have learned enough to form some general conclusions," said the doctor, after the four had told what each had heard and seen. "Van Emmon's friend, Powart, seems to be anything but a democrat. He probably represents the most aristocratic element on the planet; while this man Fort, who rescued the girl, is also probably a member of the leisure class.

"On the other hand, we have Smith's agent, whose name we do not know; he seems to be one of the working class, which Powart despises. The two are at opposite ends of the social scale. Young Ernol, whose father is in trouble, appears to be a rising young revolutionist.

"But Mona—to use the name Powart gave his fiancée—Billie's surgeon—the girl whose life Fort saved—she is not so easy to classify. On the earth we would call her occupation a middle-class one; but that remark she made about people being cattle gives me the impression that she is an aristocrat at heart. I call her a mystery, for the time being.

"As for the planet itself—of course, the people simply refer to it as the earth, or some term which translates that way to us. We need a name for it. What shall we call her—this daughter of Capella's?"

"Capellette," from Billie promptly.

"Fine!" The other two looked their approval. "Now, we are ready to analyze things. What shall we say of her people in general?"

"Speaking for my surgeon," observed Billie, "doesn't she argue a rather high degree of development?"

The others were plainly willing for the doctor to take the lead. He rubbed his knuckles harder than ever as he considered Billie's suggestion.

"A higher degree of development? H-m! Not easy to say. Safer to assume that the development is higher in spots, not in general. Perhaps we'll do well to consider other things first.

"Take those two clocks, for instance. The one that I saw had a pendulum of ordinary length, which vibrated twice as fast as that"—indicating an astronomical clock at his side. "What about the time-piece you saw, Van?"

"Twenty-five-hour dial, and a pendulum of the usual length, same as yours. But—it vibrated no faster than any I ever saw before."

"You're sure?" At the emphatic nod the doctor frowned. "We are forced to conclude that Capellette is not as round as our earth. No other way to account for such a difference in gravitation as the two clocks indicate. Roughly, I should say that the planet's diameter, at the place where I saw the clock, is fifty per cent greater than at the point where Van's agent is located; maybe ten thousand miles in its greatest diameter, Capellette.

"Having greater gravitation would explain why that disabled aircraft which Smith saw fell so very slowly; the planet has much more air than the earth, which means far greater density near the surface. It also explains those big sailing cruisers; nothing else can.

"At any rate, we can guess why we have seen no surface travel. The people of Capellette never tried to work out such a thing as an automobile; why should they, with the birds to imitate, and extra dense air all about them?

"I think we have found the key." The doctor cogitated for a second or two.

"However, let's consider that schoolroom a bit. It was in no way different from what you will find on the earth right now. Why?"

Smith had a notion. "There is such a thing as perfection. Like some electrical apparatus; you simply can't improve them."

"Sounds reasonable," from Van Emmon.

"Yes. And that is undoubtedly how the Capellettes look at the matter.

"Why haven't they got talking-pictures? Because they've perfected the silent variety, of course. Why don't they reform their ways of living, instead of replacing a worn-out heart with a new one? They've perfected surgery, that's why! And why haven't they tried the screw-propeller? They've perfected the bird-wing principle!"

"But that doesn't explain," objected Billie, "why they've been content with an autocratic system of government."

Van Emmon considered this a dig at Powart. "Why, of course their government is autocratic, dear! How else can it be protective?"

"You seem to have a lot of admiration for your Mr. Powart," laying her hand on his.

"I have. He and the others seem to be highly capable fellows, who have undertaken to maintain happiness, and have made good."

"But without the direct consent of the people."

"What of that?" warmly. "Most folks don't care to burden their heads with law-making, anyhow. They'd rather leave it up to specialists."

"Who are only too willing, my dear, to handle the matter—at their own price!"

The doctor put in hastily: "From what you tell me, Van, this commission determines the living conditions for the majority, although it has no popular authority whatever. Moreover, conditions are no better than they were a hundred years ago. There's been no progress. Powart admits that.

"Now, placing that fact alongside the rest, I reach this conclusion: that the people of Capallete, no matter what may have been their experience in the past, do not now care for revolutionary ideas. They want standardization, not change.

"It all roots back in that extra dense air of theirs. See why?"

Apparently the three did not. The doctor explained: "Life is much easier for them than for us. It is no great struggle to gain a livelihood where transportation is so easy and simple. In consequence of this their advancement was much more rapid than ours here on the earth, up to a certain point; and they've reached that point already.

"Coming back to that commission again: instead of trying out a democratic form of government, in which every citizen would be equally responsible regardless of property—they've standardized the protective, paternalistic principle."

"Which is precisely the correct method!" insisted the geologist. "Radical changes of any kind are always dangerous. The only safe method is to improve what we already have."

"Suppose," remarked Billie—"suppose government becomes so thoroughly standardized that it can't be improved further?"

"Then it becomes permanent."

"If it isn't overthrown."

The doctor smilingly interposed. "Let me finish and get this out of my system. By their own confession, the commission's chief function is to keep the majority in ignorance, which is said to be the same thing as bliss. This man Errol and his pitiful rebellion only serve to prove the rule.

"In a word, the Capellans have carried the principle of improvement, as opposed to reform, to its logical conclusion. They can go no further."

"And why not?" challenged Van Emmon. "Because the fittest have survived, on Capellette as elsewhere. These commissioners are the fittest."

The doctor nodded gravely. "True enough, Van. But the point I want to make is, the commissioners have put an end to the processes of evolution. They won't allow progress. They stopped all that a century ago.

"Friend, Capellette is a world that has given up. It has quit!"

The Upper Crust

The next time Billie went into the tele-conscious state, forty-eight hours later, she found that she had "arrived" in the midst of a conversation. It told her worlds.

"I answered the telephone," some one was saying, "and Mr. Powart clearly said that he would be here within the hour."²

"I suppose it is just as well," answered the surgeon whom Billie now knew as Mona. "Yes, I dare say it is quite as well."

"Is there any reason why he shouldn't, dear?" inquired the other party, a middle-aged woman, magnificently dressed, of decidedly distinguished appearance.

"No, mother," replied the girl; "not so far as he is concerned. But—Mr. Fort also is coming to-day."

The older woman saw nothing alarming about this. "I am glad to hear it. He impressed me as being a very nice boy, although rather impulsive."

"You don't understand. It's going to be very embarrassing for me. Mr. Fort warned me last night—laughingly, of course, but I think he meant it—that he intended to propose to-day."

Swift anxiety came to the mother's face. For a while she kept silence. And while Mona's conscious mind was occupied with thoughts which Billie could not fathom, her subconscious mind was faithfully taking in all that her roving eyes beheld.

The two Capellans were seated upon the terrace of a large, handsome house, whose architecture Billie tentatively classified as semi-Moorish. Mona next glanced into the grounds, telling Billie that the house was set upon a knoll, high up on the ridge of a tremendous range of mountains. Similar houses dotted what landscape was visible through a mass of

2.The word hour is used advisedly. Of course, the Capellan hour may have an entirely different length from ours.

foliage. It was just the sort of residence colony that Billie herself would have chosen.

Then the eyes came back to the mother, who was saying: "Perhaps, my dear, you would rather that I told Mr. Fort of your engagement." She watched the daughter as though expecting her to refuse the offer.

Which is just what the heart-specialist did, with a proud toss of the head. "Thank you; but I cannot have him think that I lack the nerve to tell him myself."

She excused herself and went into the house, passing through rooms so rapidly that Billie learned little, save that the place fairly swarmed with men in livery. Once in Mona's room, however, Billie discovered that metallic furniture was the rule; that the windows were without screens,³ and that the bed was set down very close to the floor. Otherwise, the room was much like any on the earth.

Mona's clothes interested Billie immensely. Without exception the garments were skirtless, and a large proportion of the suits were in one piece. Headgear was limited to caps, of which Mona owned an immense variety; while she wore nothing but high lace-up boots or pumps. Billie was sure that these were all of leather.

With the aid of no less than four maids, all of whom were very pretty girls, Mona changed to a garment of some lustrous brown material, like silk velvet but with a much longer nap, together with stockings of the golf pattern, and black pumps. Next she proceeded to inspect herself carefully in a mirror.

Billie saw that Smith's estimate of "not over thirty" was accurate enough. The girl was still young as to face, although her body was remarkably robust. And Billie found that her delicacy of feature did not suffer from the close-up.

Instead, her refinement was made only the more striking. Probably it was the high arching of her eyebrows that had made her face patrician; that, together with the sensitiveness of her nostrils. For there was nothing at all cold about her eyes; they were a very dark brown, large and full. And her lips were anything but haughty; they were a deep red and piquantly upturned at the corners. The whole carriage of her head, however, marked her as an aristocrat, but a lovable one.

As she turned from the glass the sound of a laugh came from the front of the house. Billie instantly recognized Fort's voice. Mona gave her hair a final touch and went straight to the terrace.

3. The Capellans seem to have utterly stamped out all forms of insect life except those directly beneficial to man.

"How do you do?" said the surgeon coolly, as she took Fort's eagerly outstretched hand. And again Billie was more interested in the man's gray-leather flying suit, so well becoming his fine muscular development, than in the conventional reply he made. Next moment Mona's mother was saying:

"I have been trying to thank Mr. Fort for what he did yesterday. It was a remarkably brave thing!"

"Indeed it was," declared Mona, with feeling. "And yet, try as I might last night, I was unable to make him see that it was anything out of the ordinary, mother."

"Why, of course," protested the athlete carelessly. "There was nothing brave about it. One is not brave unless one is afraid; and I wasn't afraid. I can take no credit for the thing."

"Do you mean," questioned Mona, "that you are never afraid?"

"Not when I am in the air."

There was silence for a minute, and again Billie used Mona's eyes to good advantage. Fort was certainly a good-looking chap, although slightly untidy in small items of his costume. He was the kind which looks best when somewhat disheveled, anyhow. As to face—a large, handsomely curved mouth, a slightly Roman nose, eyes as big as Mona's and as blue as hers were brown. Decidedly, the man was worth looking at, again and again. Most daredevils are sharp-featured; Fort was kindly. There was something positively reassuring about his kind of audacity.

Presently the mother mentioned Errol, the radical; seemingly these people had been privately informed of what Powart was keeping from the workers. Fort commented:

"I was really frightened when I heard of it. Why, if that fellow's philosophy is listened to, we all may have to work for a living!" His laughter rang above the rest; then he thought of Mona. "Oh, I say, I quite forgot, I assure you."

"Don't mention it," returned the surgeon humorously. "I don't mind telling you that this service of mine is largely camouflage. I belong to the Delusion Brigade."

Fort was greatly surprised. "You, a volunteer?"

"Quite so. There must always be some one of our class to whom people can look, whenever they suspect that we are not democratic. Besides, I have always fancied surgery." She told briefly of her work.

"Why, you are a famous person!" declared the athlete.

"You make me ashamed; I do nothing at all but amuse myself."

"Which is quite as well, Mr. Fort," the mother assured him. "I tried my best to keep Mona out of this; a social conquest is what I had planned for her. But she had set her mind on surgery; so—" And she left the rest to Fort's imagination.

A moment later Billie heard a flying-machine approaching. Shortly it came near enough for her to see that it was greatly like a yacht, painted white all over, and possessing exceptionally tall masts. The canvas was already unfurled and the vessel descending under the control of some unusually powerful wings.

"Mr. Powart's official boat," Mona explained to Fort.

The craft landed softly on the edge of the lawn, some distance away. The three on the terrace did not stir from their places as Powart, accompanied by eight men in uniform, stepped swiftly down a short ladder and strode rapidly to the house. The eight guards, each of whom carried a brown leather box, like a motion-picture camera, took up unobtrusive positions near at hand. These cases, however, were not used for taking photographs; Billie thought them more like some kind of condensed rapid-fire guns.

Before Powart got within ear-shot, Mona leaned toward Fort. "This is my fiance," she said with an evident effort; and when she straightened up her hands were trembling.

Fort took it astonishingly well. He concealed any hint of his feelings as the chairman was introduced. Powart gave him a single penetrating glance, then advanced in his sure, self-confident way, and took both the girl's hands in his own. She remained in her seat.

"I am very glad to see you looking so well. Do you feel fully recovered, Mona?"

"Yes, thank you," coolly. "Or perhaps I should say, thanks to Mr. Fort, here."

Powart turned his keen gray eyes upon the athlete. "If there is any way I can show you how much I appreciate this—"

Fort waved his hand jauntily. "Wait till I do something that costs me a real effort!"

Something in his voice caught the chairman's ear. He scrutinized the athlete more closely; and Billie found herself comparing the two. They were both big fellows; otherwise there was no resemblance. The one was as dark as the other was blond; moreover, he was somewhat heavier than Fort, and of the sort which must be dressed immaculately at all times. His good looks were due to the clean-cut lines of his face; for his eyes were stern and his mouth very strong.

If the one was impulsive, the other was sure. Fort loved to take a chance; the other, would not act until he was absolutely certain. Billie decided that he was the steadier, the more reliable of the two; also, the least likable, for that very reason. Infallibility is a fearsome thing.

The mother arose with some remark about going into the gardens, and Fort offered his arm. Powart took their going purely as a matter of course, and continued to stand—he seldom sat down—directly in front of Mona.

"I hope," said he in his direct fashion, "that you can see your way clear to consider wearing this," and he produced a small, blue velvet case from an inner pocket. And next moment Billie was peeking over Mona's shoulder, so to speak, to see a ring made of some milk-white metal, set with a single oval stone of a blood-red hue. The surgeon gave a tiny gasp at the sight of it.

"Bribery and corruption!" she cried, and started to slip the ring on to the middle finger of her left hand. Before it was done, however, she paused.

"I almost forgot." She gave Powart a sidelong glance. "Last night I thought it over, and—Well, you know how women are about changing their minds."

"Surely you haven't completely altered your opinion of me?" incredulously, rather than anxiously.

"No; I just want more time to think it over, that's all. It is not that I think less of you than before, but somehow, since having such a close call—I haven't quite as much confidence in my ability to meet your expectations." This as though she had worded it beforehand.

Powart showed little concern. "Of course I am sorry; but perhaps it is just as well. Beyond a doubt you will soon come to see it as clearly as you did the other day." He paused as the girl slowly extended the ring to him. "Why not wear it anyhow, Mona?"

"I'd rather not—not until I am sure. It's a dreadful temptation, though!"

And Powart had no choice other than to reflect her smile with one of his own, while he quietly slipped the little case back into his pocket.

Almost with the same motion he took out a watch. "You must excuse me. Business of state, as usual."

"Certainly," as she rose. She gave a quick glance around, then shook her head playfully as Powart took a single eager step toward her. "Next time," she said; and he bit his lip, gripped her hand tightly, and strode

away. In a minute he and his guards were back in the yacht, and in three minutes out of sight.

By that time Fort and Mona's mother had returned. There was a quick exchange of glances between the two women, and then the mother excused herself and went in the house. Fort suddenly became awkwardly self-conscious.

"Well, I must be going." He paused; a gleam of mischief flashed into his eyes—a kind of final come-back. "Next time I rescue you, young lady, I shall let you get hurt ever so much worse, so that I can have an excuse to call more than I have so far!"

His face sobered swiftly. "I nearly forgot. May I congratulate you upon your—engagement? Mr. Powart is a very fine man."

"Thank you; so he is. Really, I have lately come to wonder if I am good enough for him." Then, significantly: "The date has been postponed indefinitely. It is not impossible that I may give him up."

Fort stared incredulously for a second, then saw that she meant it. The blood rushed to his face, leaving him white and shaky with excitement. He made a sudden move toward the girl, checking himself just as suddenly.

"Well!" His usually easy speech nearly failed him. But he laughed as boldly as ever. "I am convinced that you are far from being a well woman, Miss Mona! I shall have to call—often!"

And with a short but exceedingly intense gaze of infinite meaning, he wheeled, clapped his cap to his head, dashed to his machine and was gone.

Chapter 9

The Stagnant World

Smith entered the mind of his Capellan agent at a moment when he was clearly off duty. In fact, the engineer of the Cobulus was at the time enjoying an uncommonly good photoplay.

Smith had arrived too late to see the beginning of the picture; but he found it to be a more or less conventional society drama. And for a while he was mainly interested in the remarkably clear photography, the natural coloring and stereoscopic effect that the doctor had already noted through young Errol. Smith nearly overlooked the really fine music, all coming from a talking machine of some kind.

And then the picture came to an end, and a farce-comedy began. It was an extraordinarily ingenious thing, with little or no plot; afterward Smith could not describe it with any accuracy. However, Mrs. Kinney, down-stairs, plainly heard him laughing as though his sides would give way.

The picture over, Smith's man got up and left the place; and once outside he glanced at his watch and took up a position on the curb, much as Smith had often done when a younger man. The Capellan seemed to know a good many of the people who came out of the playhouse; and meanwhile Smith took note of something of extreme importance.

The playhouse did not have any advertising whatever in sight, except for a single bulletin-board, like the bill of fare of a cafeteria. Moreover—and this is the significant thing—there was no box-office, neither was any one at the door to take tickets.

The place was wide open to the world. It was located on a very busy street in what appeared to be a good-sized city; but, to all appearances, any one might enter who chose to.

"Free amusements," thought Smith, "to keep the boobs happy."

Shortly his agent stepped down the street, which seemed to be greatly like one in any city on the earth, except that there was remarkably little noise. Perhaps it was due to the total lack of street-cars and surface

machinery in general. Certainly the space between the sidewalks was used for little else than the parking of flying-machines. The buildings housed a variety of stores, all built on a large scale. There were no small shops at all.

Smith's agent quickly reached his own flier, a small two-seater ornithopter finished in dull gray—Smith's favorite color, incidentally—and in a minute or two he was well under way. Smith had a chance to watch, at close range, the distorted S-motion of the machine's wings. But the flight lasted only a few minutes, and presently the craft was again at rest.

This time it was parked under a tremendously long shed, which Smith afterward saw was really a balcony, one of a tier of ten. Opposite the spot was a large building, like a depot; and over its roof Smith saw the huge bulk of an airship.

It was, of course, the Cobulus; and it was when Smith's agent passed through a checking-in room that his name was heard for the first time. "All right, Reblong," was the way it came, from the official who punched his time-card. And Reblong, with Smith making eager use of his eyes, went directly through a hatch in the side of the great ship, and thence down a corridor to his engine-room.

Smith got little opportunity to study the machinery. Reblong gave the place a single sweeping glance, then strode to a short, black-bearded chap who stood near the instrument board.

"Everything as usual, my friend?" He had a pleasant voice, as Smith learned for the first time.

"Yes—as usual!" The man's voice was bitter. "That's just what's wrong! There's never any improvement; it's always—as usual! Say, Reblong; no offense, but I think we are fools to put up with what we are given!"

Smith's man complacently seated himself in front of the instruments. "Personally, I think we are mighty lucky, instead of foolish."

"Lucky!" The other man snorted. "I wish Ernol could hear you say that! He'd have a fit!"

Reblong was not at all disturbed. "By the way, what's become of the chap? I haven't seen him around for weeks?"

"Don't know, exactly," with some uneasiness. "He went back to Calastia, and that's the last I heard of him."

"Calastia? I saw an item in the paper last night, to the effect that Calastia was under quarantine. All news cut off."

The man instantly smelled a mouse. "Quarantine! Why should that cause the news to be cut off? There's something more than quarantine the matter, Reblong!" He began to pace the room excitedly. "I say it

again, we're fools to believe everything the commission tells us. I think they've been hoodwinking us about long enough!"

Reblong suppressed a yawn. "I don't care if they do, old man. I'm willing to leave it up to them to run the government."

"And that's exactly what's the matter!" cried the other. "You and every other chap except those Ernol has taught, thinks that the commission is God-given and can do no wrong!"

"Yes?" politely. "Maybe so; only, you can't blame us for thinking pretty highly of a government that has done this." Reblong checked the items off on his fingers, meanwhile eying his companion steadily: "It has done away with the liquor traffic; it has fully protected women in industry; it has put an end to child labor; it has abolished poverty; it has abolished war; and"—with considerable emphasis for so quiet a man—"it has provided you and me and everybody else with a mighty fine education, free of charge!"

Reblong's manner, by its very emphasis, had the effect of making the other man suddenly quite cool. "Correct; I admit them all. And at the same time I want to show you that the commission has accomplished all this, not primarily for our benefit, but in the interests of the owners.

"They gave us prohibition because drinking was bad for business; no other reason, Reblong! And that's why the women are protected, too; a protected, contented woman brings in better dividends to the owners than one who is worked to death.

"Neither did it pay to allow child labor; it resulted in misery and reduced production, in the long run, and that meant reduced dividends. Poverty didn't pay, either; poor people do not make efficient workmen. War was abolished, Reblong, not for any humanitarian motives, but because peace brought in fatter profits and less waste.

"And as for our compulsory education"—he snapped his fingers contemptuously—"just what does it amount to? Simply this: it didn't pay the owners to allow illiteracy! An educated workman is a better dividend-producer than an ignorant one. That's all there is to it, Reblong! Don't fool yourself into thinking that the commission has done all this for your benefit! Not much!"

"Maybe you're right," conceded Reblong. "As for myself, I don't care a rap what the commission's reasons were. I'm satisfied!"

The other man looked disgusted. "Satisfied! Just because you're guaranteed your dollar an hour, and your pension at sixty! Satisfied, when half the company's profits go to the owners, not one of whom ever did a

bit of work in his life! A bunch of people who do nothing but blow in the money we earn, and spend more in a day than we do in a month!"

"They're welcome," commented Reblong with much indifference. "If I got all that you have told me is coming to me, I'd probably ruin myself with high living anyhow."

"You don't mean to say that you've swallowed that old piffle!" said the black-bearded chap incredulously.

"I don't see any piffle about it. As I look at the matter, the owners are doing us a genuine favor. Not only do they take the burden of our surplus earnings off our shoulders, but they run our government for us without charge."

"Well, I'll be utterly damned!" The other fellow looked as though the words were not half strong enough. "I never thought a full-grown man could continue to believe the stuff we were taught when we were kids! Don't you ever think for yourself, Reblong? Why, look here!"

He came closer and spoke with painstaking clearness, as though he were addressing a child.

"The commission, instead of assuring us that increased wages would be our ruin, could just as well be educating us to spend wisely! Just as well, Reblong! And as for child labor—man, children ought to be kept out of industry until they're twenty, instead of sixteen! Every last one of us ought to be given a college education, instead of merely the children of the rich! And all this could be done, too. There's no earthly reason why we should permit that bunch of parasites in Hafen to graft off us any longer! Put 'em to work, like you and me, and make life easier for us all!"

"But," objected Reblong, a little upset, "there's only a few of the owners. They couldn't help much."

"But their servants could. Do you know that there's ten servants, on an average, to every family of the rich? Servants who do nothing but make life still easier for people who already hog it all!"

"Well, suppose they did all go to work; who would run our government for us, my friend?"

"Who! Why—if we can do the work, I guess we can certainly do the governing, Reblong."

Reblong turned away, plainly bewildered. "It doesn't look right to me, old man. I'd rather let things stand as they are, so far as I'm concerned."

Somewhere a warning instrument was thrumming loudly. The man with the democratic ideas automatically turned to his locker, and proceeded to change his outer clothing. Reblong meanwhile took off his suit

and slipped into some full-length overalls. As he buttoned them up around the neck he stepped in front of a glass.

Smith was nearly floored. The man was almost his exact double; an ordinary, everyday sort of a chap, with a very commonplace face. Perhaps, like Smith's, his face concealed a remarkable technical knowledge; but nobody would have given him a second glance. Was he, thought Smith, a typical Capellan workman?

The other man was ready to go. He hesitated, studying the floor; then said, regretfully:

"The worst part of it is, Reblong, everybody I talk to is as bad as you are. They all admit that things are not what they should be—but nobody cares!"

He went to the door, and Reblong heard him say, under his breath, as he turned the knob:

"Great Heavens! What's come over the world anyhow? Has it gone stagnant?"

Chapter 10

A Ripple in the Pool

It seemed as though he were right. The whole great pool of humanity which comprised Capellette was still, quiescent, stagnant. Was there nothing to arouse it, no ripple in the pool?

The doctor had this question uppermost in his mind when he located young Errol. He found him getting ready to accompany his father, who seemed about to take advantage of the freedom Powart had conditionally given him. There was no doubt about it; the radical was going straight back to his revolutionary teaching.

He was saying, "Of course, my boy, I can't compel you to stay at home." The doctor delighted in the vigorous, frank manner and powerful voice of the man; they belonged perfectly with his black hair and bristling beard, his flashing eyes and aggressive nose. "I'd rather you stayed out of this; at the same time, I'd be a proud man if you didn't!"

The student calmly finished his dressing. "What time did you tell the men to come?" was all he said; and the father chuckled, then sighed.

The two took flight in a small two-seater. It was night, and the doctor took note of the planet's system of signal lights. Within five minutes, however, the flight ended with a landing in some sort of a deep depression; the doctor called it a ravine.

Climbing from the machine, the two apostles stepped a few paces in total darkness; then the elder man produced a small electric torch, which he wig-wagged above his head. There was a series of answering flashes at a distance; and next moment a door, let into the side of the ravine, opened right in front of the pair.

They stepped in and closed the door after them, then turned their light down a long corridor. Reaching the end of this the doctor noted a loophole in the wall, from which projected something suspiciously, like the muzzle of a machine gun. He had no difficulty in imagining the consequences should some one open that hidden door without first giving the signal.

Much as one might enter a lodge-room, the two radicals showed their faces at a port-hole in a door, after which they passed guards with mask-like helmets. In a few seconds they found themselves in a brilliantly lighted hall, very large and commodious except for the heavy pillars which supported its low ceiling. It was half filled with men.

The elder Errol had no use for formality. After brief greetings to some kind of a committee, he took his place on a platform; while his son unconsciously gratified the doctor by looking over the crowd. Presumably they were all workers; and in one way they were all alike; the habitual contentment in their faces had been momentarily replaced by excitement. However, they were quiet and well behaved enough.

"Comrades," began the radical without delay, "I appreciate your coming here at all, under the circumstances. The commission plainly warned me that any further teaching would be disastrous. I am not sure, but I imagine they would arrest both myself and those found with me. If there is any one who feels that he would rather not take the risk, now is the time for him to go."

There was a moment's pause; then, in the back of the hall, two men who had been sitting together got up and hurriedly went out. Errol waited, but there was no further exodus.

"I will lose no time then, but proceed to give you the proofs regarding the commission." He produced a small parcel of photographs. "These pictures are the most dangerous things I have ever carried on my person. I took them in the dead of night, by flashlight, in the library of the University of Calastia.

"They are"—he paused portentously—"reproductions of pages from the secret census!"

To most of the men this meant something highly significant. They craned their necks in their excitement.

"I am going to pass them around, negatives and all. You see where I have checked off the most important items. They prove to any one with reason that the commission has been lying to us; that the workers are being taxed more heavily than the owners; that the owners are being favored in every way. I don't care whether you agree with my ideas or not; these photographs"—his voice shook the hall—"prove that the commission is not even giving you what you thought you were getting!"

He took a single step down from the platform, his hand outstretched, about to pass the parcel to the man in the nearest seat. At that instant all the lights were extinguished.

There was a moment's stunned silence; then the place broke into an uproar. Yells of fright and anger, the crashing of chairs, screams of pain; all these young Errol heard without himself giving voice. He was sprinting down one side of the hall.

Suddenly there came a flash of light straight ahead. Errol had reached the outer corridor. And the doctor heard a great commotion going on outside the door in the ravine; a smashing and thudding, which filled the corridor with noise. Next second the door gave way, and simultaneously young Errol leaped into the niche behind the thing which the doctor thought a machine gun. Another second, and he had the device in operation.

From its muzzle shot a thin stream of fire, which extended the whole length of the corridor. It lighted up everything with a bluish-white glare, revealing a mob of men at the door. They fell back, yelling with pain, some of them dropping in their tracks. And all the while the apparatus was dealing, not a shower of bullets, but a streak of liquid fire, which hissed and screamed like the blast from an oxygen blow-pipe.

But it was all over in a second or two. A noise from behind, and young Errol started up suddenly, only to find himself in the grip of a veritable giant of a man. His struggles were simply useless. In a moment he was being carried bodily back into the hall, which the doctor saw was now lighted as before.

On one side, lined up amid a mass of wrecked chairs, stood most of the workers at bay. On the other were four men with small boxlike devices, such as Billie had already seen in the hands of Powart's guards, and which were kept trained threateningly upon the crowd. On the platform stood Errol, now quite helpless in the grasp of two stalwart fellows.

The mob from the door poured in. Immediately they made captors of all the workers, who had precious little to say. Apparently they had been warned. The doctor also concluded that the capture was a piece of treachery, in which bribery had been employed.

Two minutes later young Errol was placed in a large passenger flier, which the doctor labeled "Black Maria." Presumably the elder radical was taken in another; at any rate after another flight in the darkness, father and son shortly found themselves together again.

They were now in the drawing-room of some private residence, concluded the doctor. This puzzled him somewhat until, after a brief wait under the eyes of a half-dozen guards, the two radicals were taken into another room.

Here, lying on a couch, was a man whom the doctor soon identified. He was none other than Mona's patient, Eklan Norbith, the commission's deputy in Calastia. He was a burly, dark-featured fellow; and even though rigid in his plaster cast, he looked competent and formidable.

"Ernol," said he in a heavy, domineering voice, "there is no need to state the case to a man of your intelligence. You gave your word to stop your teachings; you have been caught in the act. Frankly, I rather thought you would do it; that is why I am here to-night. I want—to deal with you personally."

He paused for breath, and then went on, still ignoring the student, "Ernol, you know what I want. I want those photographs; and what is more, I am going to have them. You must have passed them to some one who escaped in the confusion; they have not been located on any one who has been captured, nor were they hid in the hall. Now I will give you exactly ten seconds ⁴ to tell me what you did with them."

He eyed a clock on the wall.

The radical, whose hands were tied behind him, nevertheless managed to strike a defiant pose. "I don't intend to tell you, Norbith. It is true that I handed them to one of my comrades; but I shall not tell you which one."

"Your time is up," said the man with the silver heart evenly. "Will you tell?"

Ernol contented himself with a contemptuous shake of the head. The man of the couch, for the first time conceding young Ernol's presence, now ordered him brought forward.

"I know," he told the father, "that it would be useless to work with YOU. You are just fool enough to imagine that suffering means martyrdom.

"But I told you that I must have those photographs. I meant it. I shall have that information if I have to torture you until I get it!"

"Go right ahead!" taunted the revolutionist; but his face was white.

Norbith turned to the boy's guards. "Strap him into this chair!"

It was done in half a minute. The doctor had no way of seeing how the boy took it, except that he studiously avoided his father's eyes, and that he made no sound.

"Now move him under that clock!"

One of the guards gave a low exclamation, instantly checked at a cold stare from Norbith. And meanwhile the boy was being placed just below, and a little to one side of the big clock.

4. For the sake of clearness, the Capellan second, whose actual length is of course unknown, is used here as though it were uniform with earth standards.

"Remove the lower half of the clock-case!"

It was done in a few seconds. The instrument's pendulum now vibrated freely in the air, its weight swinging almost to the boy's head where he sat.

"Move him until I drop my hand," said Norbith.

A slight push, and instantly the doctor became aware that the heavy pendulum of the clock, on reaching the outward extremity of its swing, was now gently tapping at the boy's left temple. TAP-TAP-TAP-TAP it went, with the peculiar quickness due to the planet's powerful gravity.

"Keep him there until I tell you to move him."

The tapping continued. To the doctor, of course, the thing was entirely devoid of pain. It made much the same noise the dentist makes with his mallet, only it went on and on, until perhaps two minutes had passed.

"Stop!"

Instantly the boy was moved away. The student said nothing; neither did the father. Yet the doctor noticed something which meant volumes to his trained senses.

The boy's gaze was no longer clear. Instead, dancing lights appeared wherever he looked; tiny flashes of violet and orange, which shimmered before his pupils even though he closed his lids.

"Will you ask your father to tell?" inquired Norbith.

"No—damn you!"

It was the first thing the boy had said. And it came through set teeth, in a voice which the doctor scarcely knew.

"Move him back; a little further this time."

The tapping began again. This time the boy's head got more of the force of the swing; the tapping was more like a blow. THUD-THUD-THUD came the sound now; and in a few seconds the boy could see nothing for the shivering flames. He gave a faint groan.

"Ready to talk now?"

"Damn you—no!" in a voice that shook with pain.

"Move him closer!"

The thud became a pound. The doctor looked for the skull to give way at any moment; he tried his best to control the subconscious, but the boy's agony was too great. The dancing lights had become a continuous flare; the lad moaned steadily.

And then quite without warning, the boy broke down and gave out a terrible shriek. Norbith ordered the guards to move him away from the clock.

"Ready now?" he inquired calmly.

The boy's answer was a snarl. "No!"

"Once more!"

The thud-thudding began again, and now it had a sharp sound which the doctor instantly recognized. In a moment the boy was shaking the air with cries of such awful agony that the doctor—

"Stop!" cried the father convulsively, his face streaming with tears. "God—the boy doesn't—know! Don't torture him—like that!"

The man with the metal heart said:

"Will you tell now?"

"Don't do it father!" the boy whispered through palsied lips. But no Capellan heard him.

The father was saying to Norbith, "I gave the whole outfit to—"

And then that crashing and smashing came to an end. The boy had fainted.

Chapter 11

The Double World

The four felt that they understood the situation quite well, indeed. It was really simple, this far-off world with its standardized life, this petrified civilization in which everything was guaranteed except the one real essential—progress.

But what was Fort going to do about it? Billie was not the only one who was interested; Van Emmon was equally curious, and Smith privately believed that the geologist was slightly jealous of the distant athlete. Certainly he was as eager as any one to continue the investigation, and stoutly defended Powart against any criticism.

"He's the right man in the right place!" he insisted. "Lord, I wish I was in his boots!"

"Well, I'm rather thankful you're not, dear," commented Billie with a look which quickly brought an answering light to his eyes. Yet, behind her remark there was a certain wistfulness which the doctor did not overlook.

Yes, the four felt that they were very well acquainted with Capellette.

But the most amazing part of the whole proposition was yet to be discovered. It was not until after nearly two weeks of daily investigation, in fact, that the whole astonishing truth of the matter was uncovered.

It came through Billie. Fort was now calling regularly at Mona's house, evidently trying his best to understand the girl and make himself understood; for he said not a word about his suit. And one day he suggested that they make a much longer flight than any they had so far taken together.

"I haven't been down into the contact for a long while. Have you?"

And the two set out, Billie wondering mightily what "the contact" might be. They flew for several hours in a direction which would have been called "westerly" on the earth; and during the time they were above land, Billie saw no sign of factories, farms, or other forms of industry. In fact, hill and valley alike were laid out with handsome residences,

beautifully kept grounds, vast parks and extensive greens, suggesting golf. That was all.

Then she noticed something that made her marvel. The sun, which had stood directly overhead when they left the house, within less than three hours began to descend with increasing rapidity; so that in half the length of an ordinary afternoon it had approached to within an hour of setting. Its motion was so rapid that it could almost be seen.

Soon Billie concluded that the two fliers were bound for the bottom of some unusually wide and exceptionally deep canon. She tried to remember what she had read of the earth's greatest chasms; was it possible for the sun to disappear in mid-afternoon in such? And yet the flight went on and on, until Billie began to wonder if a chasm could be a hundred miles deep.

Soon she could dimly discern the dark mass of the opposite side. The fliers were steadily approaching this, and all the time going deeper and deeper. Once Mona turned her eyes searching to the right and left; whereupon Billie was still further mystified to see that, although the cleft was fifty or sixty miles in length, yet its extreme ends seemed entirely open to the world. Nothing but a deep "V" of blue sky was to be seen in either direction.

The sun disappeared altogether. Always the two walls grew closer and closer together, until at last Billie could see, despite the semidarkness, a heavy growth of vegetation on the opposite wall. Beneath her, as well, the surface was densely wooded.

Still they descended! It was unbelievable; surely the chasm did not extend right into the heart of the globe. They had been flying for hours!

At last came a time when the far wall of the cleft was so near that Billie could have shot a deer upon it. She estimated the distance at two hundred yards; and then, and not until then, did she realize that Mona, in order to inspect this bank, was now LOOKING up. The wall which had seemed right ahead, all along, was now actually overhead!

Were they entering some sort of a cave? If so, it had dimensions that staggered the imagination. What was more, if it were a cave, how could the mind of man account for vegetation on its roof?

Within a few minutes Fort called from his machine; whereupon Mona located a landing-place, a small clearing dimly visible in the distance. The opposite wall of the chasm—or the roof of the cave, whichever it was—now approached to within five yards of the tops of the two machines. Mona and the athlete stepped out, and looked around.

Billie's senses swam. This clearing, as has been said, was only a few yards away from the tops of the bushes on the roof. Moreover, all this vegetation, instead of growing at right angles from the surface in the usual way, was all lying flat against the soil, and all pointing in one direction—back, the way they had come!

The sky was not overhead any longer; it was a mere strip of very dark blue, lying far off on the horizon. That is, to the right; on the left, the cavelike cleft extended still further, its limits shrouded in darkness.

"Queer, isn't it?" laughed Fort. "Shall we walk around?"

Whereupon the two young people set out on a narrow, but much worn trail. Keeping the sky always at their right, they passed through the thicket, Mona's eyes telling Billie that the queer horizontal vegetation grew always toward the light.

It was much like the growth at the bottom of any gulch; only the two were walking in the normal way, upright, at right angles to the surface, quite as though it were level ground!

Overhead the thicket grew in the same fashion; Billie thought the foliage much like ferns. Here and there, however, was a small flowering shrub; and it was to one of these that a tiny, orange-colored bird came flying.

And Billie wondered why Mona did not gasp in astonishment. For the bird, when it alighted upon the shrub, was not over eight feet above Mona's eyes; and unless there was something decidedly wrong with the girl's vision, the bird had alighted upside down!

There it clung, chirping flatly, moving its head from side to side and watching the two with bright, unfrightened eyes. But Mona was not much interested; she and Fort moved on. And shortly Billie was gazing at a fresh wonder.

Directly opposite them, on what Billie was now calling the roof, instead of the wall, there appeared a deep furrow in the ferns. She saw that it was a path, much like the one Mona was treading; it meandered in and out of sight from time to time. What was the meaning of it? Billie began to wonder if "the contact" was the name of some mechanical illusion, like a distorted mirror.

The two had been walking for nearly an hour when, right ahead of them, the thicket opened up, and another clearing presented itself. That is, Billie called it another clearing, until she looked more closely and made out two flying-machines in it. They were the ones the pair had come in!

Now Billie was positive that they had not turned around in their walk; they had kept the sky on their right all the while. In fact, the sky was still on that side. They were approaching the clearing from the side opposite the one they had gone out from!

Yet, neither the athlete nor the surgeon seemed to see anything peculiar in the fact. Instead, they looked at one another as much as to say, "Well, time to go, isn't it?"

Then Fort stared up at the mysterious roof. There was another clearing there, a little to one side; which accounted for Billie's overlooking it at first. Fort led the way over opposite.

"Shall we try it?" he dared Mona.

"You first," she replied, indifferently.

Whereupon the athlete, without another word, pulled his cap down tight, made sure his pockets were buttoned, cleared the shrubbery away from his feet and—leaped! Leaped straight into the air, and as he went up, he flipped his body as only an acrobat can, so that he turned a mid air somersault.

But he did not come back to where he jumped from. Instead, his jump took him five yards, which separated the ground from the roof; and when he landed HIS FEET WERE RESTING ON THE ROOF, AND HIS HEAD WAS POINTING DOWNWARD, TOWARD MONA.

"It's easy," he remarked, craning his neck so that he could look at the girl. "Come on; I'll catch you!"

And then Billie's senses whirled as the surgeon duplicated the feat. Next second Mona was standing beside Fort, five yards above the spot she had just left; and in that second everything had become precisely reversed; the two were now looking up! Looking up, to behold their machines, apparently upside down, just over their heads!

As though this were not enough, Mona picked a leaf from a shrub and threw it some seven or eight feet up. It remained motionless in mid air!

It was too much for Billie. She felt that she could not contemplate the thing any longer with safety to her sanity. She exerted her will, and broke the connection with Mona; so that a few minutes later her three friends on the earth were listening to her account.

The doctor waited until she was all through; then, "While you were having that experience I was in touch with young Errol again. The boy has recovered and is still in jail, but they let him have his books now. And I've been helping him study geography."

"Well?" eagerly.

"Very simple. Capellete is a double world!"

"Double!"

"Yes! There are two globes, instead of one. They're twins, and Siamese twins at that!" He drew a figure on his knee, thus:

[Illustration: two circles touching each other]

"Just imagine the earth and Venus of the same size, and so near to one another that their combined gravity has brought them together! That's Capellette! And the contact is the place where they touch!"

They considered this in wondering silence for a while. Then the doctor continued:

"It's just as we had deduced; each of the planets is larger than the earth. I saw the figures in that geography.

"But astronomically they are one. They revolve around Capella together; they rotate about a common center daily, just as the earth rotates on its axis. This common center is, of course, in the contact."

"Are both globes inhabited?" Billie was greatly interested.

"Yes. All parts of both planets are developed to the same extent, and evenly settled. They are just one great nation, with a common language. This, of course, is traceable to the great density of the air, enabling the people to fly wherever they wanted to go. There never has been such a thing as an 'Old World' and a 'New World' with them.

"The really remarkable fact, however, Billie has already hinted at. The country near Mona's home shows no sign of industry; there's nothing but parks and magnificent estates. And the geography explains it all. One of the planets is devoted entirely to industry and the homes of those who are engaged therein; the workers inhabit that globe exclusively. There are about ten billion of them.

"The other globe is exclusively a residence tract, set aside for the homes of the rich; what they call the owners. There is no industry of any kind. No workers live there, excepting the army of servants and park attendants which the owners need for their own comfort. The population is about a hundred million, of which only one in ten is a capitalist. The rest are serving people."

Van Emmon seemed to feel that it was his place to comment. "In other words, Newport on a grand scale!"

"Is that the way Powart seems to regard it?" from Billie.

"Apparently. There were a lot of things in his talk which I couldn't understand until now; but it's clear enough—the doctor's right."

"Then," pursed the girl deliberately, "the Capellans have divided the world between them, so that the working classes inhabit one-half, and the capitalists the other?"

The doctor explained that the dividing was all done by the owners. "Every bit of the land on the residence planet is privately owned, with the exception of certain small amusement tracts. Theoretically, the planet is open to one and all; practically no worker is welcome there for more than a few hours, and then only in one of those parks. There is no hotel."

Van Emmon was straining his memory. "Let's see—I heard Powart name the place. He called it—called it—Hafen!"

"Yes. And the other—the world which is the home of the working people, but which they do not own; the world whose factories and farms provide a standard living for the workers and lives of luxury for the owners—this world is known as Holl. But if I read young Errol's mind aright, these words mean nothing more or less than—Heaven and hell!"

Chapter 12

Cause and Effect

From that time on the four did not hold any more formal discussions of what they learned. This was due to a most extraordinary discovery.

They found that they could keep in touch with each other while they were "visiting"! It was a tremendous help; it enabled them to communicate and compare notes as they went along. The doctor declared that the Venusians themselves had not been able to do more.

Thus, when Powart called on Mona a few days after she had declined his ring, Billie was able to tell the other three all that took place, as fast as it happened. As usual, Powart's stay was a brief one.

"I hope you have recovered your former self-confidence," said he, consciously repressing the masterful note in his voice. "Not that I am unwilling to wait, Mona."

"You are very patient," she assured him. "I am glad to say that I am no longer troubled with any doubts of myself. Something else worries me now."

He frowned at the implication. "What is it?" coldly.

"Frankly, it is your record." She knew she was jarring him terribly, but she went on with evident relish, "You are the most important man in the world. Odd, isn't it, that I should find fault with that? But it is a serious objection. You are still a very young man; you have become one of the commission; for a year, you are its head. The point is, what's before you?" She paused to let this take effect. "You've already accomplished all that any man can possible accomplish in the political field. You haven't any future!"

Powart grasped the thought with his usual instant decision. "I understand. You are right, too. I had not thought of it before." A slight pause. "You fear that you may come to tire of me; is that it?"

She nodded emphatically. "If you had asked me a few years ago, before you had reached the top—it would have been different."

He remained standing, frowning hard. Presently he glanced at his watch, and said he would have to be going.

"I will see what can be done about it," he stated. "I have a plan which should get results."

"Are you going to take up a hobby?" eagerly.

"Not a new one; but a hobby I have always had." And with this enigmatic reply he was off.

Van Emmon kept track of his further movements, and reported everything to the other three. Powart had not been in flight long before he sent off a wireless despatch, to which he received a most extraordinary reply. It was from the expedition which he had sent to Alma a week before:

People of Alma give us warm welcome. Invite us to stay. We propose to do so. The planet infinitely preferable to either Hafen or Holl. Accept our resignations or not, as you please, and be damned to you!

Powart made no comment upon this, which he read in privacy after carefully decoding it. Van Emmon had no idea what he was thinking, of course, but wondered mightily how the chairman was going to deal with the situation. He could scarcely read that aerogram to the commission. For some time he paced the cabin of his yacht, and at the end he behaved like a man whose mind had been pretty strongly made up.

The commission met, it seems, in a central part of Hafen. Powart reached the place some hours after leaving Mona. He arrived to find the other nine members waiting for him; and without the least delay he took his place at the head of the table.

"We will postpone the usual routine until the next session if you like," said he. There was no objection; whereupon Powart produced a message from his pocket.

"You will recall the expedition to Alma. I have just received their first report since reaching the planet." And then, to the vast amazement of the people on the earth, he read—not what Van Emmon had seen him receive, but this, in his strong, matter-of-fact voice:

"People of Alma facing starvation, due to overpopulation and land-exhaustion. Have disabled our boat and will not permit us to return, although allowing us to use wireless, which they do not understand.

"They are constructing a fleet of huge space-boats, all heavily armed, intending to cross over to Hafen and Holl, and conquer the Capellans."

Powart glanced keenly around the table. "This is all that has been received. Evidently our men were prevented from sending any more. I

expect nothing further. It remains for us to decide, at once, what we should do."

The silence of the next few minutes was largely due to consternation. To most of the commissioners the problem was staggering. They looked up in eager relief as the shock-headed man broke the silence.

"It seems to me that war is not inevitable. Apparently the thing that Alma needs is food. We still have a good deal of underdeveloped land on Holl; why not make a bargain with them?"

"You mean present them with enough land to raise the food they need?" from the former chairman.

"Yes, in exchange for whatever manufactured goods they can supply, and which we need. I see no reason for an invasion."

Powart coughed slightly. "I do. We must not think that Alma is the same sort of a world as ours. It is a much older planet, and somewhat smaller. Yet it is more than eight times as densely populated as Holl. What land we could spare would be only a fraction of what they need. They intend not merely to invade and conquer us, but to destroy us just as we destroyed the Ammians!"⁵

The nine sat for an instant in stunned silence at this amazing fabrication. Then the big man with the aggressive face leaped to his feet, brought his fist down upon the table with a thump, and shouted:

"Well, then, if it's war, it's war!"

"Aye!" cried Powart's uncle; and in a flash the whole council was on its feet. "War be it!" they shouted.

In another moment the excitement had abated as suddenly as it had arisen. They got back into their seats, looking slightly abashed. Powart still remained standing.

"Then the only question is, shall we make preparations at once, or wait until we have thought the matter over further?" His tone was one of scientific indifference; and the discussion of the next few minutes was all in favor of his scheme. It ended in a motion to resolve the commission into a ways and means committee for the purpose of common defense.

"Second the motion!" cried the aggressive man; and the response was unanimous. Powart directed that a memorandum be made of the vote; then pressed one of a row of pushbuttons at his hand. An attendant immediately entered.

"Bring File 6, Folio 1,164, Sheet 10," ordered Powart with his usual decisive exactness. The attendant disappeared, and in less than a minute

5. Doubtless referring to some aboriginal tribe or race, such as the Indians of America.

returned with a large sheet of parchment. Powart immediately located the passage he desired.

"The action you have just taken," he stated, "amounts to a declaration that a state of war exists. Under such circumstances, the law explicitly states the function of the chair. Read!" and he handed the parchment to the nearest commissioner. Within ten minutes the law had been read by every man present. Powart instantly continued with his statement:

"This commission is hereby automatically converted into a general staff, with myself, the chairman, as supreme commander. Your functions, while this state of war endures, will consist partly in proposing what steps I shall take, partly, in advising me regarding my decisions, and partly in carrying out whatever orders I may give."

He pressed another button, and when the attendant responded, Powart made a signal with his hand. The attendant turned on his heel, saluting, faced the door he had left open behind him, and ordered:

"In single file—march!"

A company of guards trooped straight into the hall, and formed a hollow square about the table. The nine men stared at Powart in astonishment and perplexity. He did not keep them waiting.

"Pursuant to the authority vested in me by these acts, I hereby declare that a state of war exists between us and the people of Alma. I also declare the International Commission dissolved as such; the same is now my general staff, and will remain where it now is—indefinitely!"

The nine looked at each other blankly. Were they under arrest?

"And further, I hereby declare that martial law now exists throughout all the domain formerly under the rule of the commission! Until peace is declared, my word"—he paused ominously—"is the sole and only law!"

Chapter 13

The Rebel

Meanwhile Billie was still "haunting" Mona, and shortly was able to tell the other three that Fort had called, taking the surgeon out in a machine large enough to hold them both. They proceeded to a near-by park, where a game of aerial punt-ball was already in progress.⁶

Billie took great interest in the darting play of the little flylike machines, the action of the mechanical catapults, and the ease with which the twelve-inch ball was usually caught in the baskets on the machines' prows. She reported the score from time to time in a manner which would have made a telegrapher jealous.

Returning from the game, Mona and Fort became pretty confidential, the natural result of a common enthusiasm; for their side won. But Fort was content for a while to merely watch Mona, who was driving.

Finally the conversation made an opening for him to say, "I asked your mother, Mona, what she thought of me as a prospective son-in-law."

The girl was in no way rattled. "I suppose she told you that it wouldn't make any difference what she might say; I'd do as I pleased anyhow. Didn't she?"

Fort nodded, slightly taken back. Then his boldness returned. "Well, I had to bring up the subject somehow. And now that I've done it—do you love me well enough to marry me, Mona?"

She pretended to be very busy with the driving; so that Billie never knew whether Fort looked anxious or not. Presently Mona said:

"I think—I rather think I like you too well to marry you. What I mean is, I'm afraid it would spoil you, my dear boy. You're too well satisfied with yourself. I don't want to marry a man who is content to fly around half the time and admire me the other half; although," she added, "I like to be admired as well as any one."

Fort looked as though he would, with an ounce more provocation, take her in his arms and say something to get quick results. But he didn't.

6. The game is described more or less completely in various sporting publications.

"I see," pretty soberly, for him. "You want me to get in and do something important. Like Powart?" suddenly.

But Mona would not answer him directly. "It's only fair to say that I've given him an ultimatum, too." She hinted at what she had told the chairman. "I said nothing about—you."

Fort took a deep breath. Mona gave him a glance or two, and Billie could see a startling change come over him. It was amazing; Fort, for the first time in his life had made a serious resolve!

"This makes everything very different!" he declared; and even his voice was altered. There was a determined, purposeful ring about it which was altogether unlike his usual reckless tones.

"Thanks for not telling Mr. Powart," Fort went on in the same quiet way. "Clearly, I should tell him myself. And I shall. After that it is up to me!"

Next instant he had thrown off his seriousness, and for the remainder of the flight was his former jovial self. He seemed a trifle ashamed, however, of his old lightheartedness; so much so that Mona warned him not to tamper too much with his disposition. "I like it too well, boy."

He went straight home after a hurried leave-taking, and Mona did not see him again until after the declaration of war. The next the four heard of him was through Van Emmon; Fort called upon the self-made commander-in-chief as quickly as he could.

"I have the honor to inform you," said Fort, coming straight to the point, "that Miss Mona has seen fit to encourage my suit. In short, sir," with the strange new note of resolution in his voice, "I am your rival for her hand! I thought it only right that you should know."

Powart took this as he took everything, standing. And Van Emmon could see no sign that the announcement had disturbed his poise.

"You are considerate," he stated with the faintest trace of sarcasm. "Let me call your attention to the fact that, because of the position which recent events have forced upon me, it is quite within my power to dispose of your opposition"—significantly.

"Quite so! I shall appreciate your consideration also." Then the athlete permitted himself a slight smile. "On second thoughts, however, you can't afford to be other than considerate. If anything happens to me now, Miss Mona will naturally think of you; for she knows I have come here!"

A single exclamation escaped Powart, and from the light in Fort's eyes, Van Emmon knew that the chief was sorely provoked. However, he spoke with his usual coolness and certainty.

"Under the circumstances, you will be exempt, Mr. Fort, from the conscription which is now under way. I shall do nothing that might hinder your activities in any way? I take it"—evenly—"that you hope to accomplish something—big?"

Fort bowed. "It is my intention to set a mark even further than your own, sir!"

For the first time Powart laughed. It was a really hearty laugh, as though Fort's preposterous boast was so utterly ridiculous that sarcasm was out of place.

"Mr. Fort"—when his mirth had subsided—"I only wish your judgment was as sound as your optimism! Tell me—do you intend to make yourself ruler of a bigger world than this?"

Fort dropped his seriousness for an instant. "To tell the truth, Powart, I haven't any plan at all—yet. Thanks for the exemption. In return, I assure you that whatever I do will be as truly in the interests of the people as what you have done."

Powart eyed him keenly. For a moment Van Emmon thought he would try to learn if Fort had any suspicions. But he said nothing further than a curt, "The audience is ended."

A few minutes later Billie, through Mona, knew that Fort was reporting progress. He did it by telephone.

"Thought you'd like to know," he finished. "Hope I didn't rouse you out of bed."

It was night in Mona's part of the world, and Billie had come upon the girl just as she was preparing for bed.

"Thank you," she said, through a tremendous yawn. "I was just about to retire. Good luck"—another yawn—"and good—"

Her voice changed. "Mr. Fort!" sharply. "Powart's declaration of war on Alma is a frame-up! Never mind how I happen to know; it is true; they are not planning to invade us at all! He trumped up this affair in order to make himself dictator!"

"What!" The athlete was astounded. "Are you sure of this, Mona?"

The girl's manner had changed again. "I beg your pardon?" she inquired, vastly confused. "Did I say something that—why, I am not aware, Mr. Fort, that I had said anything more than 'good night!'"

"You AREN'T!" His voice was strained and excited. "Mona—you just now said something of the most extraordinary—surely—incredulously—you recall saying something, don't you?"

She was still bewildered. "I do not!" Then gathering her poise again, "What did I say?"

"You said—" He stopped and waited a long while before going on. Then he stated with a soberness that was almost stern:

"Mona, you told me something which could have come only through a supernatural agency. I am sure of it, from your manner. You were temporarily possessed." He paused again.

She sensed his earnestness, and spoke just as seriously. "It is not impossible. I have heard of such things before. I was sleepy, and—the point is, what did I say?" she demanded.

"I do not intend to tell—you. What I learned gives me a great advantage over Powart; that's all I can say. More would be dishonorable. Will you take my word for that, Mona?"

"Certainly," with swift decision, and a grace that Billie envied. Whereupon she went to bed, but not to sleep until after many an hour of wide-eyed wondering.

Fort next showed himself to Smith, through Reblong. He had secured a pass to the engine-room of the Cobulus; and shortly his breezy manner completely broke down the engineer's usual reserve.

"Always glad to show the machinery," said Reblong, denying that the visitor was making any trouble. Fort's technical knowledge had delighted him. "Come again any time you like."

Which Fort did, the very next day. And this time he brought a package of sweetmeats, during the eating of which the two men became pretty friendly.

"You're different from most of the folks of your—station," Reblong finally made bold to remark. "Any harm in my saying so?"

"On the contrary," laughed the athlete. "I rather pride myself on my democracy.

"The fact is, I want you to tell me a few things about your fellow-workers. I understand you're one of the officers of your guild?"

"Secretary," replied Reblong, a little dubiously. Was Fort a secret investigator?

"Then you can tell me. Is there any dissatisfaction? Are the men entirely content with their treatment?"

Reblong hesitated about replying, and Fort assured him, "This is a purely personal matter with me, old man. I am really anxious to know whether the working world is as well satisfied, as happy as I am."

And thus Fort discovered, just as another man had already discovered, that the average Capellan workman was entirely satisfied with what he knew to be unjust treatment. Even when Fort told Reblong what he had

learned about Powart's trickery—leaving out all details about Mona, of course—the engineer would not listen to any hint of revolution.

"I don't like to question your word, Mr. Fort"—Reblong was very uncomfortable—"but I have such confidence in the commission that—well, you understand."

And Fort said, just as the other fellow had said after talking with Reblong—Reblong, the representative Capellan workman; Reblong, who voiced the opinions of his billions of fellow-workmen when he refused to consider a rebellion—Fort said:

"Well, I'll be utterly damned!"

Chapter 14

Under Martial Law

Van Emmon was pretty cross because Billie, through Mona, had told Fort about Powart's game. More than once he protested hotly, "You shouldn't have done that! It's all their affair, not ours!"

And Billie usually returned, just as warmly, "I don't care! I think Powart is a scoundrel!" And it was in the midst of one of these tiffs that the doctor interrupted, exactly as though the telepathy was telephony:

"Quiet, you two. Fort has called at the prison, and is being introduced to young Errol. He—"

"I've been talking with your father," Fort was saying to the son. The guard had left them alone in the cell. "But he isn't interested in my ideas. He seems to think he's done all that needs to be done in getting himself imprisoned."

The boy nodded. "He considers himself a martyr, Mr. Fort; and I guess he's satisfied like everybody else." He spoke bitterly.

All Fort's own youthful enthusiasm returned with a rush. "You're just the chap I'm looking for! If you're genuinely ambitious to do the people a great service, now's your chance!"

And he went on to tell the boy about Powart's frame-up. He gave every detail of Mona's strange disclosure, and the boy believed him absolutely.

"I might have known there was some trick about it!" cried the lad. "Alma isn't that kind of a planet! By Heaven, Powart deserves to be assassinated!"

"Nothing doing," replied the athlete promptly, his eyes sparkling with the old light. "The first thing is to get you out of here; you, and the other hundred and fifty who were put in at the same time."

Whereupon he proceeded to outline a scheme such as would look utterly incredible in the mere planning. Perhaps it is best to relate the thing as it happened, instead.

Two nights after Fort's call on Errol, Fort again presented himself to Reblong. This time it was at the engineer's apartments.

"I was hoping to find you about to go on duty. I've been wondering how your engines control the steering." He was eyeing Reblong steadily. "Some time when it is convenient I wish you would show me all over the ship, and explain everything." He turned as though to leave.

"Oh, that's all right, Mr. Fort," Reblong hurried to assure him. "I'd just as soon accommodate you right now as at any time. The ship is always open to me."

Reblong had said exactly what Fort had hoped and planned that he would say. Fifteen minutes later the two men were inside the big air-cruiser, alone except for a few cleaners, who were finishing the usual work of preparing the ship for its next cruise. But Reblong could not know that Fort had carefully made sure of this fact beforehand.

The engineer took the athlete from one end of the cruiser to the other, showing him how the pilot was able to control its motions with the utmost delicacy, thanks to automatic mechanism in the engine-room, electrically connected with the bridge.

"Suppose I was the pilot now," commented Fort, standing on the bridge and looking up at the stars. "All I need to do is to set these dials"—indicating the pilot's instruments—"to 'ascend,' and the engine-room would do the rest automatically. Is that it?"

Reblong said this was practically true, and led the way back to the engine-room. The place was full of a gurgling sound, now, due to the fuel being run into the tanks. Reblong glanced at the indicating tube. "We've already got enough," he estimated, "to take the ship a thousand miles."

And next instant Fort had leaped upon him. Reblong staggered back in his surprise, stumbled against a chair, and sat down heavily, helpless as a child in the athlete's iron grip.

"Sorry, old man," remarked Fort, meanwhile pushing him, chair and all, toward the instrument-table. "But it's simply got to be done." Like a flash he let go the engineer and snatched a strap from the table—where he had of course previously placed it—and again threw himself upon his man before Reblong recovered from his surprise. In a second he was strapped tight in his chair; and not until then did he think to use his feet. Another strap put an end to his kicking.

"Surprised you, didn't I?" The athlete was enjoying himself hugely. "Now—I must remind you that I'm taking a big chance in doing this. If

you make a noise, I shall treat you as any desperate man would treat you!" There was a look in his eyes which clinched the matter.

Immediately he disappeared in the direction of the nearest cleaners. Reblong heard sounds of struggling from time to time; and evidently he implicitly believed that Fort would take vengeance upon him if he called for help; for he kept perfectly quiet. After perhaps twenty minutes the athlete returned, breathing heavily, but happy.

"The last one almost spilled my beans," said he—to use the expression Smith employed. "He happened to see me shutting another one into a closet, and jumped me from behind. I had to lay him out." Reblong must have looked alarmed. "Oh, no harm done. They'll all live to tell about it for the next twenty years."

Next he made certain adjustments in the engine-room mechanism. Then he went to the telephone, and located the man in charge of the depot. "Hello—Mr. Fort speaking; Reblong isn't able to come to the phone." He winked at the man in the chair. "There's something wrong with the fuel indicator. Shut off the supply for a while, will you?"

The gurgling soon stopped. Reblong watched in continued silence as Fort disappeared again, this time taking the elevator to the bridge. He was back again in a couple of minutes.

"Now, old man," addressing the engineer, "you can guess what I'm up to. I'm going to navigate this cruiser alone!"

"I've set everything for the ascent. You see what I've done; if I've made any mistakes, it means good-bye for the Cobulus, for me, and—for you!

"I leave it to your good sense to tell me if there's anything I've overlooked." And he laid his hands on the starting-levers.

Reblong said nothing so far, such was his chagrin and wonder. But now he evidently considered seriously what Fort had said.

"I see you mean it, Mr. Fort. And—you ought to know that once you've cleared the landing-dock, you'll have a hard time to keep her level unless you're up on the bridge. That is, while you're shifting the wing-angle. But you ought to be down here to do that; and, meanwhile, she might nose down and slam into something, and—" Reblong shuddered.

"I see." The athlete pondered for a moment. Then he lifted the engineer bodily, chair and all, and moved him over nearer the instrument. Next he loosened one of Reblong's hands, just enough to permit him to reach certain of the levers. He also did some more tying of knots and shifting of buckles, roped the chair to a stanchion, and made sure that Reblong could not undo himself.

"It's up to you," said Fort with the new light in his eyes. "You run this thing as it ought to be run, and you're safe. Trick me in any way, and I'll get you!"

Reblong took a single look at those eyes. "I understand," said he, in a low voice; and without further ado the athlete went to the elevator.

In less than a minute the order came to "cast off." The engineer did not hesitate, but threw the levers and turned the wheels which Fort had expected to operate himself. Another second and the great craft was rising from its seat.

Shouts, muffled and faint because of the ship's double windows, sounded from outside. Reblong saw the sheds sinking rapidly below him. In thirty seconds the vessel was free of the dock.

"First gear ahead," came the signal; and again Reblong obeyed. Practically he had no choice. Another man, of nobler training, might have preferred to be loyal at all costs. But Reblong, the representative Capellan workman, saw the lights of the sheds shift slowly to the rear, then go out of sight as the speed increased. He saw one or two fliers preparing to pursue, but he knew that the cruiser would easily outstrip the best of them.

The Cobulus had got clear away!

It was an hour later that the four, this time through the doctor and young Er nol, learned the sequel to Fort's daring feat. The boy was alone in his cell, awake in the darkness, when one of the guards marched up to his door and unlocked it.

"Come out," he ordered; and Er nol preceded him down the corridor, up a flight of stairs, through another corridor and thence into the exercise grounds. On the other side of this was a small building, with no opening save one door, now bright with light. Inside, Er nol found the other men who had been arrested with him, closely watched by a dozen of the prison guards. His father was not there; apparently they were waiting for him to be brought.

"It worked all right," whispered the man at Er nol's right, as the boy was lined up. Er nol only nodded slightly, keeping his eyes fixed upon the door. A moment later, the elder Er nol arrived, accompanied by a man whom the doctor instantly recognized.

It was Eklan Norbith, the man whose infernally ingenious use of the clock's pendulum had wrung the truth about the secret photographs from the boy's father. He looked even more cruel and repellent now, than he had that night on the couch. Apparently quite recovered, he made a truly forbidding figure.

He had evidently been sent for by the warden; for, with a slow, malignant stare at the row of prisoners, he stated the case in his heavy, ominous tones:

"You are all supposed to know the rules. One of you has been smuggling drugs into the prison; we have found specimens in each cell. It only remains to learn which of you is the guilty party; and that, I propose to uncover within one minute!"

He paused, and glared around again. The stillness was unbroken for a moment; then one prisoner coughed nervously. This started half the rest to doing the same; and under cover of the noise, Errol whispered to the man on his right:

"No sight of him yet! I'm afraid you showed the drug too soon."

"I waited until I heard the clock strike," protested the other; and then both stood on their guard as the commission's deputy went on with his arraignment:

"It is my duty to inform you, although you probably already know it, that this building is made of iron. Floor, walls, and ceiling are the same." The doctor saw that the prisoners' feet were all bare. "And the whole place is heavily wired with high-power electricity!"

"The guards and I will now leave you to yourselves." His teeth showed in an evil smile. "We will give you a few kilowatts as a starter, and shut it off after ten seconds. If you are not ready by that time to tell me which of you is guilty, I will then let you have the current twice as strong!"

The prisoners looked at each other anxiously. Errol threw back his head defiantly.

"Don't weaken!" he exclaimed. "The juice can't hurt you!"

Immediately the guards backed out, keeping their weapons trained on the crowd. Norbith was the last to go. He left the door open; and from where the boy stood he could plainly watch the man as he worked the switches, just outside.

Instantly the place was in an uproar. Of course, the doctor felt nothing of the prickling, nerve-shaking pain that gripped every one of those barefoot men. They leaped and darted here and there, bluish sparks flashing wherever they touched the iron; or they fell after a step or two and writhed on the floor, shrieking and cursing with the exquisite torture of that awful current. Errol alone kept from shouting; he stood and took it, trembling like a leaf.

But it lasted only a moment or two. The uproar ceased. Norbith stepped back into the room.

"Well?" The slow smile again. "Want to tell now?"

For answer the boy clapped his hand to his mouth and blew a shrill whistle. Norbith stared in astonishment. Then, all of a sudden, a tremendous thing happened.

A veritable hurricane swooped down upon the place. There was a vast rush of wind, accompanied by a thunderous noise, like breakers. Then two huge masses of metal clanged against the sides of the building; there was a grinding crash, and the whole structure rocked and swayed as though in the grasp of some supernatural monster. Next second the lights went out; the wires had snapped.

"All aboard; look out, below!" sang out a voice. It was Fort, calling from far overhead.

And then, slowly at first but with quickening speed, the iron building rose into the air; arose, and floated away like a toy balloon. It was fast in the grip of the Cobulus's grappling-irons!

Norbith was the only officer left in the room. He regained his senses with lightning speed. Out came his electric torch; he trained it on the prisoners.

"By God!" he cursed. "You'll not get away, you—" And he fumbled with the weapon in his belt.

It was one of the boxlike machine guns. Young Errol hesitated only an instant. Then he dashed forward.

The box spat fire. The boy threw his weight against the deputy, so that the man lost his balance and toppled out the door into the arms of the guards below.

And the doctor brought his own mind back to his body not one second before the lad, burnt through and through by the flame of the man's weapon, fell back into the room—dead.

Chapter 15

Powart Strikes

From then on until the end the doctor was out of it. Try as he might, he could find no other mind with which to connect, no other view-point like his own. He had to content himself with what the others learned.

Their knowledge of the rescue stopped short soon after the Cobulus, with its living freight, quitted the prison grounds. Reblong, as Smith watched, continued to operate the engines during about two hundred miles of flight; then Fort, having shown one of his new comrades how to steer, came down to the instruments, leading the force of cleaners whom he had kidnaped.

"Thanks very much," to Reblong, in the voice of a man who was having the time of his life. "I dare say you feel a little sour about this; but later on you can have the satisfaction of having helped, even though against your will."

"What are you going to do now?" Reblong wanted to know as the athlete released him from his chair. The other Capellans were content to stare and listen.

The strange glint came back into Fort's eyes. "It's up to you, folks!" And he explained the situation, making it clear that they, the cruiser's workmen, would not dare return and tell the truth, for fear of punishment for disloyalty. In the end the Cobulus was halted, and Reblong and the rest were set down in an unsettled mountain country, with enough supplies to last a year.

Thus the engineer became a fugitive. Smith learned nothing further from him. For all practical purposes, the investigation was narrowed down to what Billie, through Mona, and her husband, through Powart, were able to uncover. But it was enough; enough to strain their imaginations to the snapping point, and make all four doubt their new-found senses.

Van Emmon declared that he intended to warn Powart that his plan was suspected. "It's only fair," stoutly, "after what you told Fort, through Mona." And Billie had no answer to that.

So the geologist watched the chief closely, finding it decidedly hard to catch him in the required state of semiconsciousness. Apparently Powart was always alert, even up to the exact moment of going to sleep; after which he invariably slept like a log, but awakening with a start, bolt upright in bed. But Van Emmon continued to watch his chance.

Meanwhile another message had been received from the Alma expedition. It ran as follows, after decoding:

People here are planning to construct a great fleet to visit Hafen and Holl about the middle of next year. To carry a regular army of missionaries, to preach the gospel of social democracy.

Better make the most of your reign while it lasts, Mr. Powart. Married yet?

The chairman was glad to get this, rather than otherwise. Somehow the thing strengthened his whole plan. From his standpoint the proposed invasion of missionaries "to preach the gospel of social democracy," was far more to be feared than a military invasion.

So, although he made certain changes in the message, he did not have to counterfeit his earnestness when he presented the matter to his staff, the former commission. Perhaps the expedition's last remark, "Married yet?" had something to do with the vigor of his tones.

"They are planning," he told the nine, "to undo all that our civilization has accomplished. Unless we can circumvent them, Hafen and Holl will be turned into bedlam."

He lost no time about what he had next to say. "Knowing what we do about Alma's designs upon us, I believe that it would be folly to wait until we are attacked. They doubtless possess inventions against which we would be powerless; they are such highly advanced people in such matters. So what I propose is to prevent them from attacking us at all!"

He paused portentously, finding in each face before him an anxious excitement which was exactly what he wanted. They were hanging breathlessly upon his words.

"Let me remind you that Alma is not only our nearest neighbor in the solar system, but that, at present, only a few million miles separate us. She is within a few weeks of the nearest point. Furthermore"—speaking with care—"we must remember that Alma is not only nearer the sun than we are, but it is a much older planet. Were it not for the glass with which she is completely roofed in, the people would suffer from lack of

air. In short, this roof of theirs is vitality itself to them. Now, my campaign—subject to your suggestions and advices—shall be to puncture that roof!"

The sensation was tremendous. None of the nine had ever heard the like before. And yet, such was the dominating energy of their commander, it bridged the gap for them all; instantly they saw that his idea was the best possible.

"The only question, of course—sir—is the matter of means." The shock-headed man spoke with immense respect. The others looked as though they envied him his nerve.

Powart was ready with his reply. "I have already considered this. Briefly we shall construct a piece of artillery of such dimensions that we can bombard the planet directly!"

He explained that it meant operations on a scale never before attempted. It meant a cannon as much beyond what had ever been made before, as that roof had exceeded anything of the kind. "And so far as I have figured the matter, the total resources of Holl will have to be pressed into service for the purpose. There will be no opportunity for insurrection while this work is in progress."

And he went on to elaborate. The nine made some suggestions, a few of which were adopted. The thing was worked out, then and there, with such completeness that the plan was publicly announced the very next day.

Powart himself carried a copy of the manifesto to Mona. He found her superintending the work of her gardeners. She did suggest going into the house, but offered him a seat on the grass beside her. He stood instead.

"It seems to be the only thing to do," commented the surgeon, after reading the document in silence. She had not the remotest idea, of course, that the whole thing was based upon pure fraud. "Are you sure that this bombardment will not cost a good many lives?"

"I doubt if there will be any loss at all," he replied. "It is my intention to communicate with Alma just before the first shot is fired, and warn them what to expect; so that they can keep away from the spot we shall aim at, and get supplies ready for repairing the break."

"I see. Your plan is to keep them so busy mending breaks that they will lose all interest in their proposed invasion." She laughed a little. "Really, it is a rather comical sort of warfare. But you certainly deserve a great deal of credit for finding such a humane way out of the difficulty. You will go down in history as the world's greatest man!"

Powart drew a deep breath. But he said quietly enough, "Don't you think that I have done enough to—dispose of that objection of yours?"

She was momentarily at a loss for words. "Really—the thing is so immense—I can hardly believe that you did all this entirely on my account. Did you?"

He was taken off his guard. "Yes—I mean, no. Your objection was what set me to thinking; but the opportunity of doing our people a service—that, Mona, is what—" He hesitated; it was not easy, with the girl staring innocently at him, declare that he had not deliberately formed his opportunity out of thin air.

But she had no suspicions. Billie had not been able to reach her again.

The four on the earth knew little of Fort. He called up Powart two days after the Cobulus's sensational flight, reporting that he had been kidnapped "by some masked men" along with Reblong and the others, but that he alone had escaped. The ship, was found, abandoned, in an undeveloped part of Holl; and all signs indicated that the former prisoners had separated at this point. Prolonged search failed to locate them, or the missing employees.

Fort continued to go and come quite as before. He called frequently upon Mona, with whom he was exceedingly careful to avoid all reference to Powart, for fear he might blurt out the truth. The girl told him that he still had a lot of time to make good; she would not marry, she said, until after all danger from Alma was past. He was satisfied.

"I have a little scheme up my sleeve," casually, "such as may amount to something, and may not. I need just about that much time to finish it, anyhow."

"Is it anything you can talk about now?"

"Not yet."

And the subject was dropped.

Thus matters stood when half the industrial army of Holl, taken from their regular tasks, were set to the making of the giant gun and its equally giant projectiles. Monstrous though they were to be, however, they were no less prodigious than Powart. Could Fort, wondered Mona, possibly equal him?

And so the weeks passed into months, and finally the great day came.

Chapter 16

The Blast

"I am glad to see so many moving-picture men," said Mona thoughtfully. "If it were not for photographs, I doubt if coming generations would believe this."

And she turned her glasses again upon the scene. From the cockpit of Fort's newest ornithopter, about three hundred yards from the ground and less than that distance from the spot, she could watch operations with exceptional ease. Fort agreed with her comment.

"Yes; to merely state that the mouth of that cannon is a hundred feet in diameter, and that it is set a mile and a half into the ground, at an angle of thirty degrees—it's too much of a strain on the imagination. However, I understand they've taken flash-light pictures from the interior, such as will make it easier to believe."

A huge compound crane was slowly swinging the first projectile into place over the muzzle of that colossal gun. Mona eyed the immense shell with curiosity.

"As I understand it," she said, "the projectile is really a number of shells, telescoping, one within another. I've forgotten how many there are."

"Fifty. The idea, of course, is that the original charge of powder within the cannon will send the projectile at something like two miles a second. Upon reaching a certain point in space another charge will be automatically fired in the base of the outermost shell. Thus it will act as another cannon, from which the remaining shells will be shot. And so on, until the forty-ninth shell has been blown to the rear. The remaining one will, by that time, have traveled far enough to get out of our gravitation into Alma's."

"What is the size of the fiftieth shell?"

"Only two feet in diameter; ⁷ but of such length that it will hold five tons of explosive. It is expected to demolish a square mile of their roof."

The great projectile was carefully lowered until its tip was flush with the volcano-like mouth of the cannon. The proceeding took a long time; and it was well toward the end of the work that Powart's handsome yacht swept into the space provided for it in the circle of spectators. By prearrangement this space was next to that occupied by Mona and Fort.

As soon as the yacht had come to a stop its thrumming wings keeping it as steadily suspended in mid air as any of the lighter craft roundabout, Powart himself stepped out upon the tiny bridge. It was the signal for a great outburst of applause, in which Fort joined as heartily as any one.

"You don't seem at all envious of Mr. Powart," commented Mona, watching the athlete curiously.

He looked around as though surprised, and protested:

"On the contrary, I am really proud of his success. You see, it's this way, Mona: If he fails, then I fail too!"

And before she could ask what he meant he raised his voice enough for the dictator to hear:

"Congratulations, Powart! Everything coming along all right?"

Powart gave Fort one of his piercing looks, but showed no sign of irritation as he replied: "All reports satisfactory. We shall have our little fireworks promptly on the second." Then to Mona: "Sorry I cannot invite you aboard my ship; but I shall be so occupied with the ceremonial end of this, you know, that—"

"Of course," instantly. "I would really be in the way; and I shouldn't care to be that, to-day of all days."

And Van Emmon, through Powart's eyes, judged that the dictator stood mountain-high in her respect at that instant.

Fort listened with the utmost indifference, seeming to take a boy's rapt interest in the spectacle below him rather than in the affair at his elbow. He glanced at his watch and remarked: "Less than half an hour now. I can hardly wait!"

Mona eyed him speculatively. "What did you mean, just now, about your success depending upon Mr. Powart's?"

"Just that," he returned lightly. "Why, if he fails, my little scheme is a miserable fiasco! I shan't be able to marry you at all; that is, unless you grant an extension!"

Mona did not respond to his levity.

7. All dimensions are necessarily a matter of judgment; but they represent the opinion of an architect, whose sense of proportion is presumably better than average.

"I wish you'd be serious!" she rebuked him. "Just think what this affair means!"

He pretended to be thoughtful. "Oh, to Alma, you mean! Yes, indeed; the folks will be badly upset, I imagine, if the projectile actually reaches their roof."

"Why, do you think it may not?" surprised.

"It's barely possible. The whole thing has been very scientifically calculated, of course; but the slightest flaw in the mathematics could cause a miss. Yes, the projectile may never reach its mark; it's something to be considered."

"In which case," returned Mona, evidently convinced that he was teasing, "in which case, your own scheme falls through!"

"Oh, no," with the utmost calm. "My scheme depends upon the cannon, not upon the projectile."

Mona nearly lost her temper. "I wish you wouldn't talk in riddles!" But Fort was plainly unwilling to say anything further just then; he changed the subject, directing Mona's glasses toward a point far to the rear, where the blue wall of the contact loomed, some twenty miles away. The spot had been chosen, of course, because there were fewer inhabitants in that locality than any other; the discharge of the gun would mean an immense volume of smoke and gas, likely to prove disagreeable for days. Nobody cared to live near the contact, because of its queer, sunless conditions.

"Almost time we were getting out of here," said Fort, after another look at his watch. As he spoke a warning whistle on Powart's yacht sounded shrilly; and with one accord the surrounding horde of sight-seers—all belonging to the leisure class, of course—began to back away from the spot. The workmen, down below, were already taking flight. A moment later Powart, speaking for the benefit of a recording phonograph, began as follows:

"Precisely at the hour, minute and second determined by the commission's mathematicians the projectile will be slid into the cannon. The concussion will explode the powder in the breech. This final act is to take place"—he glanced at his watch—"within two minutes.

"By so doing, the people of Hafen and Holl, through me, their commander-in-chief, do hereby deliberately take the offensive against Alma." He hesitated, then went on with fresh determination: "Rather than permit them to prepare for the threatened invasion, then, we thus proceed to bombard their roof, in order to so harass them that they shall be made helpless against us."

Mona turned her gaze from the dictator, and took up her glasses. The great cannon was nearly a mile away from them now; not a single aircraft was closer than Fort's and Powart's, which were still backing away. The blast was not a thing to be sneered at. Mona's hands shook with excitement.

Powart's eyes were on his watch. "The thing is beyond all human power to prevent now. The projectile will be released by clockwork. In fact"—his voice rose, his excitement finally getting the better of him—"it is even now sliding! It is only a matter of seconds; the projectile is lubricated so as to slide easily."

A breathless pause; another look at the watch, then:

"By this time, my friends, the projectile has reached—"

And even as the words quit his mouth, the cannon belched forth.

Chapter 17

The Devolution

Mona removed from her ears two tiny devices like collar-buttons. She noted Fort and the others doing the same. Without this protection their eardrums would have been burst. And while the girl was doing this she heard the athlete hailing the dictator:

"Good for you, Powart! It's a fine job, and I'm ever so much obliged to you."

The dictator stared in amazement. Mona looked from the one to the other, perplexed. Fort was laughing shakily.

"You may as well make your apologies now, Powart; you're out of it! I've won, and you've lost! I've done a bigger thing than you have!"

Mona gave an exclamation of impatience. "What do you mean?" she cried shrilly. "Are you out of your head?"

"Not a bit of it! I mean just what I say! Powart hasn't succeeded; he's failed. And because he has failed, I've outdone him."

He was gazing impudently at the dictator as he said this; Powart was leaning over the railing of the bridge, a short distance away, too indignant to speak. Next instant, however, Fort glanced at his watch.

"Have to be leaving you now," he called. He turned his machine around. "You'll learn soon enough, Powart, exactly what I mean. And you'll know that I'm right. Good-by!"

Within a minute he and Mona were two miles away. Fort kept silent all the while. He seemed to be intent upon getting the most out of his machine, and kept looking anxiously at his watch. Finally Mona could hold in no longer.

"Boy, I've simply got to know what your game is. You've kept me waiting long enough."

He immediately began to explain. First, he told her frankly and fully, just what she had said to him over the telephone, when she was under Billie's "influence." "I was so sure it was genuine I went right ahead on that lead, Mona."

"You are positive you heard me say that?" from the girl thoughtfully.

"Absolutely. And somehow I knew it was the truth."

"Powart had tricked us; not merely the workers, whom he has been hoodwinking all along, but you and me and all the rest! So I looked into the matter and discovered that the poor devils on Holl have been treated all wrong. All wrong, Mona! I never realized it before, until I investigated; but they've been enduring rank injustice for generations, and we've encouraged them to be satisfied with it."

"I know it," she interrupted softly. "I've known it for years, boy. What could we do to help them?"

"Exactly!" cried Fort, looking ahead and down, toward the chasm of the contact, then at his watch once more. "Exactly what I found out, Mona! There was no use telling them the truth; they wouldn't believe it! They were too well satisfied."

"And so, when I heard of Powart's scheme to bombard Alma, I saw a way to free the poor idiots on Holl! A way to release them from their bondage—OUR bonds, Mona—and defeat Powart's trickery, and win you—all at one move!"

The girl was plainly thrilled. Yet she kept her voice comparatively cool as she asked:

"So far, so good. But I don't see that you've done anything at all except to kidnap me."

He made an impatient gesture. "Look at the ground!" he ordered curtly; and Mona wonderingly obeyed.

They were nearly to the contact. This time, however, they were not flying down into the cleft, but over it. The curious, canonlike chasm where the two worlds touched was perhaps ten miles below them.

"Look closely!" shouted Fort excitedly. He was glancing at his watch again, and changing the angle of his wings. "By heavens, we are just in time!" The craft dove perilously; he straightened its course. "Look closely, I tell you! It's something you've never seen before, and will never see again!"

And Mona, staring down at the point where Hafen and Holl came together—the curious region of balanced gravitations, like nothing else anywhere in the universe—saw, as she passed over, something that made her senses whirl.

Hafen and Holl were no longer one!

The two globes were now a quarter of a mile apart, and the distance was steadily growing. Even as Mona watched the gap increased until almost a mile separated the two great worlds.

"Do you see?" cried Fort, fairly squirming in his seat. "Do you see what I've done, Mona?"

"I've taken Ernol and his friends—the bunch I rescued from the prison—and put them to work. Put them to work digging a tunnel! We've been flying above that tunnel just now. It runs—from the contact to the cannon—the bottom of the cannon, Mona!

"When Powart's shot was fired, the recoil—the kick—broke the contact! Understand? Do you see it?"

Mona stared in dull wonder. When she found voice it was strangely flat and commonplace.

"Yes, but—I don't see how the recoil could separate two worlds as large as Hafen and Holl!"

Fort chuckled breathlessly. "You forget something. You're thinking only of the gravitation; you're forgetting the centrifugal force."

Hafen and Holl, by their daily rotation—around the contact as a center—were always tending to separate. That recoil was just enough to turn the balance; they'll never touch again.

"And what's more," he rushed on, "Powart's shot is sure to miss! The recoil threw the cannon out of line. Hafen had already moved before the projectile left the gun. Powart—has failed!"

Suddenly the surgeon wheeled upon the athlete. "Boy, we're headed in the wrong way! We'll land in Holl, not in Hafen!"

"Who wants to live in Hafen now?" he shouted, clinging desperately to his controls. The craft was tossing in the newly created air-currents. "Don't you see?"

"I've cut Hafen from Holl forever! The workers aren't to be slaves any longer; they're to have their world to themselves, to use entirely for their own benefit; not for the owners!

"And the owners—back there—they're going to have their own world, too, just as they've always insisted! But from now on it's to be their farm, too, and their factory; they've got to get along without Holl from now on.

"Mona—the commission wouldn't allow evolution, and the workers wouldn't listen to revolution! So I've given them—devolution!"

"What?" she cried.

"I've given them devolution. I've given the race of man—a fresh start."

But Mona was scarcely listening.

"Turn back!" she screamed. "I want to go back to my home! I don't want to live in Holl. Turn back, I tell you!"

Fort's face went white. He looked up at her appealingly. "You don't mean that, Mona! Say you don't!"

"I do! I want to go back!" She glanced down at the ever-widening gap. "Hurry! Turn back, or I'll do it myself!"

Fort gazed straight into her eyes for an instant; then, his face whiter than ever, he brought the craft to an abrupt halt in mid air. He looked at his watch for the last time, and said, in a strangely hollow voice:

"Just as you wish, Mona. There's plenty of time to get back before the air gets too thin in the gap.

"The point is, though, that if you go, you go alone!" They looked at one another unwaveringly. "So far as I'm concerned, I shall spend the rest of my life on Holl! No Hafen for mine! From now on I live with the workers. Come—what do you say, Mona?"

She answered instantly and stubbornly: "I go back. What about you?"

He took a parachute from a locker. "Holl is below." He buckled the thing across his chest and stepped up on the edge of the cockpit.

"Do you mean it, dear?" said he softly.

She stared at him stonily. He turned away, his mouth shaking slightly, then held out his hand.

"Good-by, then, for the last time!"

Mona suddenly grasped his hand. For an instant hope flared in Fort's eyes, then faded, leaving his face gray and drawn. He poised himself, letting go her hand reluctantly. Then he turned resolutely.

"It's the only thing for a man to do, Mona! As for you—turn about and go as fast as you can! You've got just time enough. Good-by!"

And with Mona unable to utter a single word, able only to watch and to feel, the athlete leaned to one side so as to clear the wing, pulled his cap down tightly, and jumped into space.

Chapter 18

The Silver Heart

Mona leaped to the controls. She turned the craft about automatically and started toward Hafen. Then she glanced over the side. What she saw brought her heart to her throat.

About a mile below, and under Fort as he sank through the air, was another flying machine which neither had noticed before. In it was the figure of a man standing; he was maneuvering his craft so as to intercept the falling aviator. And the clear air of the high altitudes carried the sound of his voice faintly but surely to Mona's ears.

"Thought you'd get away, did you, Fort?" in heavy, insolent tones. "Well, you get—left, my boy!"

"Eklan Norbith!" cried Fort at the same instant. Next second he had landed on the deputy's machine.

"Norbith!" thought Mona, immediately recalling her patient at the hospital. She hesitated only an instant, then dove in a steep spiral down toward the two.

Fort had fouled his parachute on a stanchion, in landing. Breathless, he lay in a tangle heap, looking up at the towering bulk of the deputy.

"You're not going to get clear this time, Fort, like you did that night with the Cobulus and Errol's gang!" Norbith was saying savagely, gloating over the man at his feet. "Thought the lad killed me, I suppose. I was barely stunned. And I've been on your tail—ever since."

His eyes glowed with anger. Mona watched him in silence as she circled nearer. Norbith! The commission's deputy in Calastia; he represented all that was evil and cruel in the government. It was he who did the nasty work, the things which Powart himself was too much of a gentleman to do. Norbith—the strong, cruel right arm on an unjust law!

"Well"—Fort had regained his breath somewhat—"now that you've got me, Norbith, what do you intend to do about it?"

"Do!" The man's voice fairly boomed. "I'm going to tear that parachute off your back and pitch you overboard, you infernal outlaw! And I'm going to claim that you resisted arrest!"

At that instant he noted Mona for the first time. He started as he recognized her. "The surgeon!"

Then his rage came on him again. "You hold your tongue, young woman, or I shall have it—pulled out! Do you understand?" he demanded, thrusting his face up toward hers.

And then Fort was upon him. All he cared for now was to get his fingers in Norbith's throat. And next moment Mona was desperately steering his machine clear of the other as it swayed and thrashed about under the struggling of the two men.

The advantage was with the deputy. Powerful man that he was, he was more than a match for even Fort's great strength, while the athlete's agility did him no good in the restricted space of the cockpit. The parachute hindered him, too. Down on the ground, on a clear spot, it would have been different. As it was, Fort was quickly thrust to his knees, and, despite all that he could do, he could not fight off the deputy's grip. In a moment it had shifted to the athlete's throat.

"You would, would you!" roared the deputy. "By—you'll be dead even before you reach the ground!"

Fort struggled wildly. In a moment he was strangling; Mona could see his protruding eyes and lolling tongue. She could not help. She was not athlete enough to leap to his aid. But all of a sudden, just as Fort had once come to her own rescue, her tongue came to his.

"Boy! Boy! Tear open his shirt! Tear open his shirt!"

Fort heard. For a second he hesitated, dull wonder in his starting eyes; then he reached up, and with a spasmodic jerk of his hands, ripped Norbith's shirt wide open. The man's bare chest was exposed.

"Don't you see?" shrieked Mona hysterically. "Look, boy! Look!"

And Fort saw. Saw the two silver tubes leading from the brown scar in the breast of this man—the man whose heart had been replaced by a silver instrument. Saw the tubes, leading to a belt around the man's middle, where the pumping mechanism was concealed. And as Fort saw, he understood.

With a final burst of strength he raised his quivering fingers and clutched one of the little pipes. A jerk, an exclamation from Norbith; and then, even as Fort's head fell back insensate, his hand snapped the little tube in two.

"Good God!" swore the deputy. "You—you've—" He gasped and spluttered; he let go of Fort. The athlete dropped like a log into the bottom of the craft.

But Eklan Norbith stood upright, his hands thrashing wildly, his mouth twitching horribly. One end of the broken tube hissed with escaping air; the other end spouted blood. The deputy swayed; his head dropped to his shoulders.

And then the air rushed into his lungs for the last time; he gave a single piercing shriek, tottered, and fell backward out of the machine.

Fort opened his eyes to see Mona bending over him, bathing his head. He looked around dully, blinked once or twice, frowned as though trying to remember, and then said:

"How—did I get here?"

"I waited until Norbith's machine steadied," said she in a wonderfully soft voice, "and then flew down close enough to pick you up."

He remembered. Suddenly he grasped at her arm and tried to get up. "Hurry!" he cried. "You've only got time enough to make it! The gap—don't take any chances!"

But the girl was paying no attention to where the machine was going. She was looking at the man and seeming to be perfectly satisfied.

"I don't care," she declared a little shakily. "Holl looks good enough to me, dear—if you're going to be living on it!"

The craft rocked perilously.

Back on the earth, three of the four stirred in their chairs. The doctor was the first to arouse. He sounded the gong to warn his wife, and the action helped to awaken the others; Billie first, then Smith. But Van Emmon did not rouse. Still connected with the dictator, Billie's husband was twisting and turning in his chair, moaning slightly under his breath. In his subconscious mind some terrible scene was being enacted. Suddenly his mouth flew open, and the words fairly tumbled forth:

"Ernol—at the contact—he's telephoned! Everybody knows now!" Next: "Billie: Why didn't you tell me? I could have warned Powart!" And then, in a voice of agony:

"God, what a mob! They'll kill him!"

But he was still unconscious. The doctor exclaimed in fear.

"Quick!" he ordered. "Into the connection again!" And he threw himself back into his chair.

In a minute the three were still. Except for two great tears from Billie's eyes, there were no signs of life. Two minutes passed, then three. Finally all four roused together.

"Well!" Van Emmon was the first to speak. His voice was harsh and strained. "By George, that was a narrow squeak! I thought sure I was a goner! They threw Powart—out of his yacht!"

Billie caught his hand and patted it. Her lips were trembling; she could not trust herself to speak. Her husband stared at her with eyes that were still bewildered and tried hard to understand.

Smith could say nothing. The doctor, however, got to his feet and stretched.

"Phew!" taking off the brass bracelets and reaching for a handful of the Venusian books. "That was—going some!"

He located a passage in one of the books. "I guess we've had enough of people like ourselves. What do you say," eagerly, "to visiting a place where they're not even the same sort of animals as we are?"

He looked around enthusiastically. Smith made a brief sound of agreement, and remained in his chair. Both he and the doctor looked to Billie and Van Emmon for comment.

But the man and the woman were content to look at one another. Their minds had room for only one problem; their eyes saw nothing, cared to see nothing, save that which love seeks and, having found, is satisfied with.

Did it make any difference to Billie that her husband had sympathized with Capellette's greatest despot and worst failure? Did it make any difference to Van that Billie approved when the woman she was allied with discarded the despot for the devolutionist?

Or was Billie still his chief reason for existing, and was Van hers?

That was the real question! Small matters like life in other worlds—they could wait!

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The only man who knew of their existence was Brent Taber, secret agent, specially commissioned to find out their plans and avert the world's destruction.

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