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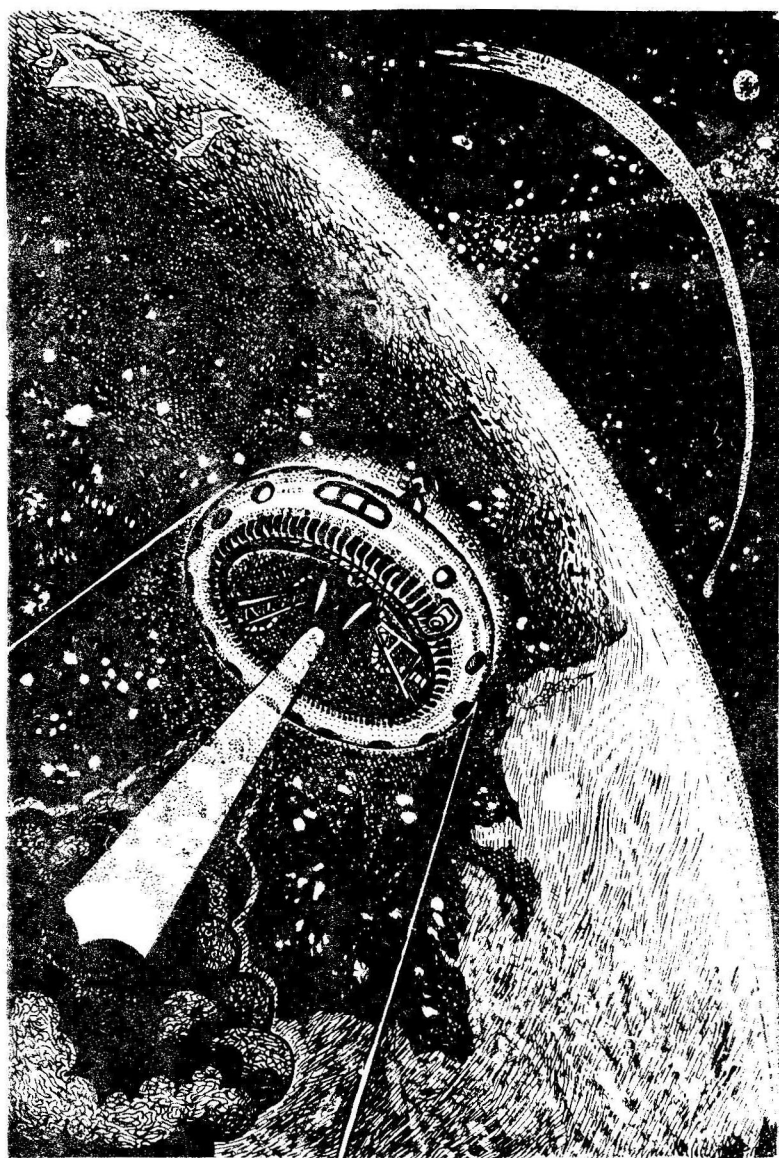
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THE MOON MAKER

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Th e *M O O N*

M A K E R

ARTHUR TRAIN
and
ROBERT W. WOOD

Illustrated by Frank D. McSherry, Jr.

1958

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THE MOON MAKER

When the world-war was at its height, wireless messages signed with the name "Pax" had been received at the Naval Observatory at Washington, in which the sender declared himself capable of controlling the forces of nature. These mysterious messages were followed by the occurrence of extraordinary natural phenomena such as violent seismic shocks and an unprecedented display of the aurora borealis. Coincidentally, there appeared in the heavens a terrible air-craft, the Flying Ring, which, by means of a powerful lavender ray, disrupted the mountains in northern Africa and flooded the Desert of Sahara. The warring nations were informed that if they did not conclude a permanent peace, Pax would shift the axis of the earth and compel the termination of hostilities by turning central Europe into an arctic waste. The nations, convinced at last that, unless they acceded to his demands, human life upon the globe would come to an end, entered into negotiations for peace. At about the same time, Professor Benjamin Hooker, attached to the Department of Applied Physics at Harvard University, determined, by independent research, that the mysterious force had its origin in the wilds of Labrador, and resolved to go there himself to see what he could find out about Pax and his schemes. After much hardship, he discovered the location of the Ring, arriving there at the moment when Pax was about to carry out his threat to deflect the axis of the globe; but, owing to an accident to the machinery generating the lavender ray, an explosion occurred in which Pax and his associates were destroyed. The Flying Ring, however, remained intact, and Hooker, with his friend, the famous aviator Burke, succeeded in mastering its mechanism and starting in it for the United States.

PART I

THE WANDERING ASTEROID

I

"Now," said Bentham T. Tassifer, with an air of defiance, "we'll see!" He was a bandy-legged little man, whose abdominal structure suggested a concealed melon.

Red-faced and perspiring, he arose from where he had been teeing up his ball for the fifth hole, flourished his driver aggressively, and, adjusting his knobby calves at a carefully calculated angle, went through a variety of extraordinary contortions with his wrists and forearms. Outwardly, he was the personification of pugnacious assurance. He had every appearance of being absolutely certain of his ability to swat that small white sphere to a distance of not less than three hundred yards and plumb onto the next green. Inwardly, however, Bentham had no confidence in himself at all. He knew that the chances were just nineteen out of twenty that he would slice into the bushes at about sixty yards and lose a brand new "baby bramble."

But, as befitted a deputy assistant solicitor at the Department of Justice, he allowed no hint of nervousness to betray itself, looked sternly at Judson, his lank opponent, and remarked again, "Now we'll see!"

Nobody but Mrs. Tassifer knew what a sucking dove Bentham really was in his inmost soul. The world at large regarded him as a rather terrible squatty person who had a chip on each shoulder, for he made almost as much noise insisting on his rights as a native Briton. In point of fact, he thought he looked like Stephen A. Douglas or, in lieu of that, like Robert G. Ingersoll possibly. But that was all on the exterior. And now, as he addressed the ball, he kept inwardly repeating to himself: "Eye on the ball - head steady - follow through. Eye on the ball - head steady - follow through." Then, summoning all his resources, he swung his driver over his shoulder and was about to bring it down with the impetus of a Travis, when he thought he saw a black gnat dancing in front of his eyes.

"Tush!" he exclaimed, waving with his left hand. "These flies!"

"Aren't any flies," retorted his friend Judson, from the Department of Agriculture, "in October."

"Well, I thought there was," said Bentham, dressing at the ball once more. "There it is again!" he added, suddenly striking at something. Then he fastened his eyes on the horizon. "You're right! It isn't here - it's there! See it?" And he pointed out into the blue of space with his driver.

"Flying machine," announced Judson. "Watch it go!"

The black speck was coming swiftly toward them and growing larger every instant.

"It's like a doughnut - round with a hole in the middle!" cried Bentham. "I believe that fellow intends to land here. What impudence!"

By this time, both of them could see plainly the details of the machine which, constructed apparently of polished steel, flashed dizzily in the sunlight as it shot over the golf-course. It was evidently a hollow cylinder shaped like an anchor-ring or life-preserver, about seventy-five feet in diameter, with a tripod superstructure carrying, at its apex, a thimble-shaped device, the open mouth of which pointed downward through the middle of the machine. A faint yellow glare - a sort of luminous vapor - hovered below this gigantic car, which sailed through the air with a deep humming sound.

"It's coming down!" shouted Bentham indignantly. "We'd better beat it! This is an outrage!"

From overhead came a series of crackling vibrations, accompanied by a muffled roar like escaping steam. The car had ceased to move forward and was slowly descending. Strange creakings and snappings echoed like rifle-shots all about them, and a Niagara of what looked like hot steam shot through with a pale-yellow, phosphorescent light, drove down through the cen-

ter of the ring and tore away the surface of the fair green, filling the air with a geyser of earth and grass. The two men, almost blinded by the rain of mud, sand, and small stones, ran like rabbits to the shelter of the nearest bunker.

"Outrageous! Inexcusable!" sputtered Mr. Tassifer, as he cowered on the other side of it. "Fellow must be simply mad! Private property!"

Then, after a couple of minutes, hearing no further sounds and the sand-storm having subsided, they raised their heads and peeked over the top of the bunker. Between the fourth and fifth holes, the turf on the fair green had been torn up in a circular patch of about a hundred feet in diameter, and in the shallow crater thus excavated, and surrounded by an irregular ring of divots, sand, and debris, rested a gigantic flying machine surmounted by a superstructure not unlike the fighting-mast of a battle-ship. The whole affair, embedded thus in the golf-course, had an air of permanency that irritated Mr. Tassifer, and, even as he gazed at the trespasser, a circular manhole opened in the side, a jointed steel ladder was lowered to the ground, and a short man in a strange kind of helmet climbed out and began to descend.

Then it was that Mr. Tassifer rose to the occasion.

"Here, you," he shouted, hurrying threateningly toward the newcomer; "this is private property! You can't land here! Take yourself off!"

The man from the machine leaped to earth and turned a circular glass face, like a small aquarium, to the enraged golfer. From outside, his countenance had a horrible grotesque appearance, like that of a man-eating shark. Lowering his head, he charged like an infuriated bull at Mr. Tassifer, who ignominiously took to his heels and did not look round until he had gained the shelter of the clubhouse piazza. Mr. Judson had arrived there before him.

"I'm going to telephone this minute and get a warrant for that fellow - trespass and assault - we'll see!" The little man was shaking with baffled rage and humiliated dignity. "Right in the middle of the fair green, too! How can we play that fifth hole, I'd like to know?"

"I say, play it as 'ground under repair,'" panted Mr. Judson, who was just getting his breath.

"'Ground under repair!'" echoed Mr. Tassifer scornfully. "There isn't any ground under repair. It's got to be played as 'a rub of the green!'" He glared furiously at Judson.

"*Ground* under repair!" repeated the other stubbornly.

"Rub of the green!" shouted Mr. Tassifer.

A sound of heavy footfalls came from behind them, and they turned to see the man from the flying machine coming up the steps. He had taken off his helmet and looked very pale and tired and quite tame.

"Excuse me," he said huskily. "Can I telephone to the ob-

servatory from here? My name's Hooker and we've just come down from Ungava - five hours. Simply *had* to land on your course - nowhere else! You couldn't let me have a cigarette, could you?"

II

The morning after the successful descent of the Flying Ring among the bunkers and hazards of the golf-course of the Chevy Chase Club, at Washington, Professor Benjamin Hooker awoke to find himself not only famous but, beyond peradventure, the most interesting human being upon the terrestrial globe. Equipped with a marvelous engine capable of navigating space and of discharging a lavender ray which could annihilate anything from a fleet of battle-ships to a mountain-range, he was justly acclaimed "The First Citizen of the World." He, or the nation to which he should give his allegiance, could, it was properly assumed, control the destinies of mankind.

It had been universally known that the nations involved in the world-war had concluded a treaty of peace only under the threat of the mysterious being known as "Pax" to shift the axis of the globe and turn Europe into an arctic waste. It was now, therefore, generally believed that Hooker was himself none other than Pax, and that, having brought about the end of the war, he had returned with his aerial monster to pursue further scientific investigations under the auspices of the national government.

At any rate, Professor Benjamin Hooker, hitherto the most modest of all the retiring inhabitants of Cambridge, Massachusetts, now found himself in the spotlight of publicity, and hailed not only as the arbiter of world-politics but as the dictator of human destiny. True to his instincts, however, Professor Hooker paid no attention to this surfeit of adulation. The day after his arrival, having reported himself at the office of the Secretary of State, he retired to the Congressional Library to prepare his statement for the Smithsonian Institution, and, having rented a hall bedroom in a quiet lodging-house on H Street, resumed the unpretentious existence of a scientific investigator.

By arrangement with the government, the Flying Ring was moved to a large aerodrome beyond the city, where its mysteries were protected from public curiosity by a steel fence, thirty feet high, outside which, both by day and night, armed guards were constantly on patrol. For, in the Flying Ring and in Professor Hooker, the government of the United States realized that it possessed not only the key to permanent peace but to the safety and prosperity of mankind as a whole. It may be said quite confidently that the head on anybody other than Professor Hooker would have been completely turned. Daily there arrived at his boarding-house various ambassadorial representatives of foreign nations, who conferred upon him, in the name of their govern-

ments or monarchs, the highest decorations in their gift. But, as became a true American, he thought little of these decorations, and simply threw their crosses and other insignia into an empty and not very clean bureau drawer. All this fuss and feathers took, in his opinion, a confounded lot of time and interfered with the serious business of life. Yet his very modesty operated to increase his notoriety. Here was a shabby little man, with tousled brown hair, double-lensed spectacles, and a protruding Adam's apple - the most famous man in the world; nay, the most celebrated man since the creation - who, for simplicity and diffidence, surpassed both U. S. Grant and Admiral Dewey, who was content to go on wearing the same very baggy eighteen-dollar suit of clothes for years, and to live in a three-dollar-a-week hall bedroom, when his picture hung in every kitchen from the Atlantic seaboard to the Pacific coast.

But, to speak accurately, Bennie Hooker was not so much disregarding of these things as he was oblivious of them, for when he was not working in the Congressional Library or the Smithsonian Institution, he was wandering around Washington with his eyes on the ground or in the air, engrossed in working out some spatial problem and totally unaware that he was being pointed out at every corner as: "That's him! That's Hooker!"

Thus, pondering on the mysteries of space and time, of infinity, eternity, and the riddle of the universe - or, to be exact, upon an equation which he was figuring out on the seventeenth leaf of his note-book - Professor Benjamin Hooker wandered into Dupont Circle and absent-mindedly seated himself on the southeast end of a green park bench upon the northwest corner of which reclined a young lady dressed in a tan tailor-made suit. Professor Hooker did not know that he was in Dupont Circle; he did not even know that he was on a green park bench, and, if he had, he would not have known upon which end of it he was. Needless to say, he was entirely ignorant of the presence of the young lady in the tan tailor-made suit. The equation was a very annoying one, and, for some reason or other, he found it impossible to integrate it. With his note-book on his knee, Professor Hooker chewed viciously the rubber tip of his lead-pencil and cursed the devil that was in the figures. And, as he was thus engaged, a clear, well-modulated young voice, which appeared to emanate from a point directly over his right shoulder, remarked,

"Why don't you write x in its exponential form, Professor Hooker?"

So far as its arousing Professor Hooker to a consciousness of his physical existence was concerned, the voice might have been the murmur of the night breeze. To him, it was less than the voice of conscience.

"That's so," mused Professor Hooker. "Of course. Why didn't I think of that before?"

And this, as he thought, he proceeded to do. But still the solution would not come.

"But you didn't think of it at all, and you haven't even done what I suggested!" declared the voice.

Then, for the first time, he looked up over his shoulder.

The girl in the tailor-made suit had moved along the bench and was now sitting next him in the closest proximity possible without actual contact. As she sat there, she was slightly taller than Professor Hooker, who, unfortunately, was too preoccupied to be conscious of the trim slenderness of her athletic figure, her alluring cheeks and chin, the long black lashes of her large gray eyes, her low, wide forehead, of the whimsical smile that played about her softly curving lips.

He saw none of these things, but he, somehow, received an impression of vigor, poise, certainty, and comprehension. In other words, his reaction was entirely intellectual and not in the slightest degree physical, which made it very much easier for Professor Hooker to sit as he did on that green park bench and say:

"Plague take the thing! Got any idea what's the matter with it?"

"Let me have your note-book," ordered the young lady, and, without waiting for a reply, removed it genially from his reluctant fingers and annexed the pencil. "There!" she said. "Now, it's simple enough - don't you see? X has the significance of the real part of the complex."

"Well," declared Bennie, with obvious admiration, "you're certainly a shark at mathematics!"

The young lady took out her watch.

"You had better be thankful that I'm not the man-eating variety - it's nearly lunch-time!"

If Professor Hooker's eyes had been as sensitive to delicate shades of the complexion as they were to the varied hues shown in his spectrophotometer, he would have noticed that a pink flush - very nearly wave-length 6250, he would have said - spread over her face as she caught his eye; but this incident wholly escaped his notice.

At the same moment, the bellow of a factory whistle somewhere over Alexandria way caused Professor Hooker to arouse himself out of his state of semilethargy.

"By thunder, it's one o'clock!" he exclaimed, and, without further ado, he arose, bolted across the Circle, and made a flying leap for a street-car which was just swinging into Connecticut Avenue. The tailor-made girl followed him with an amused gaze.

"I really believe I know more mathematics than he does," she remarked complacently to herself. "But isn't he just a dear?" And with that, she too, arose and walked briskly away, as if she knew exactly where she was going - which she did.

III

He was fifteen minutes late to lunch, and the other boarders

had made way with everything on the table except a single chop and a few scrapings of macaroni which Mrs. Mullins, the landlady, had carefully rescued and preserved for him. But Professor Hooker, who ate merely as a matter of form, did not notice the absence of the other courses and, automatically obeying the law of compensation, evened up on the sago pudding, of which there was an inevitable abundance. Then he went up to his room, lit his pipe, seated himself, cross-legged, sideways on his bed, and got to work at his note-book again. The equation, however, in spite of the young lady's clever suggestions, still refused to be solved. For an hour, he chewed his pencil, arising occasionally and walking up and down, three steps each way, in front of the marble-topped walnut bureau, until the middle-aged spinster who occupied the room below was ready to scream with nerves. As however, she was waiting for a man to come and take her out walking, she was obliged to possess her soul and feet in patience.

"I ought to have let that young woman finish up this calculation for me," Hooker at last conceded to the face in the glass. "I can't handle the thing myself, and now I'll have to go out to Georgetown and bother Thornton with it."

Thornton was the senior astronomer at the new Naval Observatory, and, with his junior associate, Evarts, had been the first scientist to observe the mysterious phenomena incident to the manifestations of Pax's power. But as Professor Hooker, at this point, remembered that he had left one of his other note-books at the Smithsonian, and as this note-book, when found, in turn suggested another unsolved problem, it was almost dark before he boarded the Georgetown car and quite naturally took his seat among the places reserved for smokers.

The evening paper, however, offered very little of interest. In fact, Professor Hooker rarely found anything upon its front pages that he cared to read. The antics of political parties and their bosses, the matrimonial eccentricities of social leaders, "what the man will wear," even the vivid accounts of battle, murder, and sudden death with which its columns were replete meant nothing to him. Disgustedly he folded over the newspaper and ran his eye down the miscellaneous foreign-news items. An obscure paragraph caught his eye.

THE NEW COMET

Geneva, Switzerland - The officials of the observatory here have just published the corrected elements of the orbit of the new comet reported by Battelli last month. They predict that this new intruder into the solar system will be of unusual brilliancy, probably surpassing that of the Great Comet of 1811.

Here was something worth while - something directly pertaining to Professor Hooker's bailiwick. Comets were his specialty. He had a familiar acquaintance with them and their families - knew them all by their first names, so to speak. Now, the Great Comet of 1811 had been the most sensational sidereal exhibition on record. It had caused a confident belief throughout the nations that the end of the world was surely at hand. If the new comet were going to be anything like that - holy smoke!

The full moon was climbing over the ghostly white domes of the observatory as Professor Hooker, still pondering on the comet, trudged up the long hill to where his friend gave his life to the unselfish service of mankind. At the farther end of the building, a light glowed in a single window, and, having been admitted by a sleepy porter, he walked down the long corridor and knocked at Thornton's door. Receiving no response, he waited for a moment, knocked again, and then opened the door himself. Thornton was sitting at his desk, completely absorbed in his calculations.

The grave profile of the astronomer showed through the dim light from the shrouded electric lamp like the head of an ancient statue of some Greek philosopher. Before him lay a litter of white papers covered with figures and an open book of logarithms. Immured in the interior of the great dome, with its monumental walls like those of an ancient Egyptian pyramid, they could hear no sound save the slow tick of the sidereal clock and the faint whir of the complicated machinery that drove the telescope in its infallible following of the movements of the solar system. For upward of two minutes, Thornton remained unconscious of Hooker's presence. Then, with a sigh, he laid down his pencil and, looking up, observed his friend for the first time.

"Hello, Bennie," he exclaimed, with a suggestion of excitement in his ordinarily calm voice; "pull your chair up here! We've got something big - the biggest thing, in fact, that has ever happened in astronomy! We got the elements of Battelli's comet yesterday. Unless I've made some mistake in my figures, there's going to be a smash-up in the universe!"

From Thornton, the conservative, such a declaration had immeasurable significance.

"You mean it's going to hit the earth?" asked Hooker, with interest.

"No," answered Thornton; "but it looks as if it would strike one of the smaller asteroids in a head-on collision-and if it does-"

"Something will drop," finished Hooker. "Which asteroid?"

"Medusa - one I've been following in its orbit for more than two years - a small planet, largely composed of pitchblende."

Hooker pursed his lips into a whistle.

"What do you really suppose will happen?" he inquired.

"No one can tell," replied the astronomer. "The collision might check Medusa in its orbit and cause it to fall into the sun. In falling, it might cross the earth's path and strike us - it might mean the end of the world!"

"Gee whiz!" ejaculated Professor Hooker. "When is this interesting event going to take place?"

"I calculate that the comet and the asteroid will come into collision at three o'clock on the morning of the eighteenth of next month. You can come over and see it if you like."

"I'll be here," Bennie assured him, jotting down the date. "And now," he added, pulling his note-book from his pocket, "be

a good fellow and solve this equation for me, will you?"

"Good Lord!" protested Thornton. "Really, don't you think it's almost bedtime? I'm no good outside my own line, anyway."

"This *is* your line," retorted Bennie. "Look here, Thornton; don't go back on me. All this fooling-around of mine with radium and that sort of stuff has weakened my mathematics. I've simply got to solve this equation. I almost solved it this morning," he added, with a shamefaced recollection of the girl in the tan suit.

"There's no use your calling on me," answered Thornton definitely. "It would take a week for me to catch up with you, anyhow."

Hooker's face clearly showed his disappointment.

"But, Thornton," he protested, "who else is there but you? You're the most expert mathematician in America!"

The astronomer laughed.

"I wish I were," he replied. "But the fact of the matter is my mathematics is by no means my strong point. Anyhow, I haven't the time. It's simply out of the question."

"Well, who *is* there?" persisted Bennie.

Thornton leaned back meditatively.

"I suggest your trying the research professor of applied mathematics at the new National Institute."

"Thanks," answered his friend, slipping his note-book back into his pocket and putting on his hat. "By the way, what's the gent's name?"

Thornton's eye twinkled.

"His name," he said, "is Miss Rhoda Gibbs."

IV

PROFESSOR BENNIE HOOKER arose next morning and got on line in company with Mrs. Mullins' other boarders for his bath in the tin tub just as usual. But something was different. Breakfast, while no stodgier than usual, did not taste quite the same, and he answered Miss Parkinson, the spinster who roomed beneath him, quite sharply that he wasn't responsible for the milk or for the maple sirup either, although, in his absent-mindedness, he had appropriated considerably more than his share of both. The fact of the matter was that Thornton had told him to go to a woman for assistance - a woman!

It was now upward of thirty years since there had been a woman in Bennie's life - leaving out, of course, Miss Beebe, his landlady in Cambridge, and Bridget McGee, the biddy who cleaned his room in the house on the Appian Way, where Miss Beebe resided. He had never liked women, anyway - not since they had insisted on swathing him as a child in flannel soaked in various kinds of healing oils, and his experience with Miss Beebe and the McGee had not increased his regard. They were fools - or just scrawny fakers, aping intelligence like Miss Beebe, who filled him with disgust. Yet, had he known it, that withered virgin adored the

ground upon which Bennie's carpet slippers trod, and she had not raised the rent on him for eighteen years. Such are life's tragedies. And now to be sent to one of the despised sex to crave succor, to beg for aid, humbly to be shown how to solve a not extraordinarily difficult problem in astronomical mathematics - it simply made him sick. He wouldn't go to her-he simply wouldn't!

As he sat on his bed, smoking defiantly an after-breakfast pipe, he could see her in his mind's eye, - a lean, flat-chested, bony person, with a sharp nose and chin, thin gray hair - and a mole, perhaps. "Snippy" - that is what she would be like - in the Beebe order! She would listen to him with a supercilious sniff and condescend patronizingly to put him in the wrong. Yet, he was very anxious to solve his problem, for ever since he had navigated the Flying Ring back from Ungava, he had been meditating on the possibilities afforded by this machine, which could negative the force of gravity. No; he must suppress his natural feelings in the matter and seek out this horny old maid - the research professor of applied mathematics at the National Institute - and get it over with. But he wouldn't change his collar for her - no, sir!

Still recalcitrant, he took the car over to Georgetown and inquired of the porter at the observatory for the research professor. The nearer he got to her the more averse he was to calling upon any woman for assistance; but once having appealed to the porter, it was too late to draw back, particularly when the latter conducted him to the door of a small room overlooking the garden, knocked, and left him there.

"Come in!"

The words had a certain musical quality as if half sung, although spoken, and while he did not recognize the voice, its cheerfulness communicated itself to the dejected spirits of the professor. With his pipe still in his mouth, to show his superiority, Hooker turned the knob and pushed open the door.

There, between two high French windows, sat the tan tailor-made girl! She had evidently been dictating, for a weazened, stenographic-looking male with a tonsure was bending over a note-book with elevated pencil. As Professor Hooker entered, the stenographer arose stiffly, and the tan young lady lifted her face toward the door and said,

"Good morning!" Then turning to the stenographer: "You may go, Stebbens. I want seven copies of that condensation of Hiroshito's 'Theory of Thermic Induction.'"

Bennie stared at her, choking with embarrassment.

"Are you the research professor of applied mathematics?" he exclaimed, as the stenographer slid by him.

"That's me," she laughed.

"I ought to have guessed it," responded Bennie humbly.

"How did you get on with your problem?"

"I didn't," he replied. "The truth is, I got side-tracked on something else."

Then, suddenly becoming conscious of his pipe, he thrust it hurriedly into his trousers pocket.

"For heaven's sake go on smoking!" said the girl. "I don't believe you could think at all without your pipe."

"That's true, too," said Bennie, replacing it where it belonged, with gratitude. "Do you mind taking a look at these equations? I'm after something different this time - not as hard as the other one - but I'm not sure of the solution." He laid his note-book down before her.

The girl glanced at it thoughtfully for a moment, and, drawing toward her a pad of yellow paper, she swiftly integrated the equation before Bennie's embarrassed but admiring eyes.

"I suppose one gets groggy occasionally," she said. "Of course I can see that you're on some gravitational problem."

"Yes," he replied; "I'm trying to calculate the rate at which the velocity of the Flying Ring - Pax's antigravity machine that I found up in Labrador, you know - would increase as it left the earth if I took it out into space. The attraction of gravitation, at a distance, say, of twelve thousand miles above the earth would amount to comparatively little, and our velocity would increase at a simply terrific rate. I must get an absolute solution of the problem. Skooting round in space would have to be done by a sort of dead reckoning, I suppose, anyhow, but a knowledge of our velocity would be essential, wouldn't it?"

"By 'our velocity' do you mean that you are planning to take me with you?" inquired the young lady pleasantly.

At this highly indelicate suggestion, Professor Hooker stared at his fair companion blankly.

"You - I - thunder - no!" he stammered, suddenly turning pink and experiencing a sensation of warm stickiness around his collar. "Wouldn't do at all, you know! No idea of such a thing! Hope you didn't think -"

She leaned back again in her chair and rested her head against the wall, looking dreamily over Bennie's head to a great astronomical chart hanging upon the opposite side of the room.

"You know," she responded, and there was almost a suggestion of awe in her voice. "I have sometimes thought of the unlimited possibilities which the Flying Ring would afford to a person who had the courage to avail himself - or herself - of them. There is nothing, so far as I can see, to prevent your navigating the Ring anywhere in space. Provided you arranged for a sufficient supply of oxygen, a flight to the moon would hardly present any difficulties at all."

"Very little," answered Bennie. "It is perfectly plain that Pax had anticipated just such a flight, for the Ring is fully equipped with oxygen-tanks and all sorts of similar appliances. It may be that he actually did visit the moon! So long as I can get uranium cylinders for my tractor, I could take the Ring anywhere. But there are other considerations, certain chances that a chap oughtn't to take - unless he hopes to accomplish something

worth while. The navigation of interplanetary space is an entirely new game, and the chances are that, no matter how much care I took, I shouldn't learn all the rules the first time. Then, if anything went wrong —'

"If anything went wrong, and your engine ran down, or something happened to your machinery, you might find yourself caught between the gravitation of the moon and of the earth and whirling round and round forever through the universe."

Bennie took a long pull on his pipe.

"That would be a new kind of immortality, wouldn't it?" he remarked whimsically.

V

There was soon no doubt regarding Thornton's prediction. Careful observation, supplemented by independent calculations, demonstrated beyond peradventure that the asteroid Medusa would certainly pass through the head of the comet, which now blazed nightly in the sky like the beam of a huge search-light. Never had such a meteor been known before, for it surpassed in brilliancy and size the famous comet of 1811. All night long the streets of every American city were filled with crowds of people watching the huge fire-ball, the diameter of which appeared to the terrestrial observer to be nearly half that of the moon itself. From the dawn of time these dragons of the sky have caused consternation in the hearts, not only of the ignorant savage but in those of the half-civilized as well, and even among the educated classes there still lingers some echo of that fear, inherited through millions of generations of men, who, from the birth of the race, have sought to read upon the scroll of the heavens the tracings of the hand of Fate. And so the boulevards of the capital swarmed with thousands of people, who gazed in silence at this monster of the sky. Unlike the Chinese, who endeavor to scare away such celestial demons by exploding firecrackers and making all the noise humanly possible, these Occidental multitudes viewed the comet in solemn if not religious awe, realizing poignantly, for the first time, that our universe is not protected from attack by wandering celestial bodies. Had a hostile Zeppelin appeared upon the horizon, a fleet of aeroplanes would have instantly arisen to meet and destroy it. But no known human agency existed which could go forth to challenge and possibly vanquish a fire-monster appearing thus malevolently out of the infinity of space. The man in the street walked with his nose pointing to the midnight zenith, and next morning complained at breakfast of having a most unaccountable "crick" in his neck; but the crowd was still save for the new boys, who ran nimer and thither shouting shrilly: "Extree! Extree! All about the comic!"

Consumptive old men, gray-bearded and withered survivors of antebellum days, wastrails of the vissitudes of fortune came

crawling out of garrets to set up small, battered brass telescopes on weather-beaten mahogany tripods. And about these collected knots of people, who eagerly paid small sums to get a nearer view of this astonishing phenomenon which portended no one knew what. In the "black-and-tan" quarters of the city, the impassioned tones of the exhorters, mingled with the groans and wailings of converts and the chant of salvation-hymns, filled the air, for there, at least, the conviction prevailed that the day of Judgment was at hand, and that the sheep were at last to be definitely separated from the goats.

Four days after the meeting of comet and asteroid, which was duly reported by observing astronomers, newsboys were again crying, "Extra!" in the streets of Washington. An evening paper had been made the recipient of the following, the result of calculation on the part of Thornton:

EARTH TO BE ANNIHILATED!

ASTEROID "MEDUSA" WILL TORPEDO OUR PLANET ON APRIL 22. CATA-
CLYSM NOW ABSOLUTELY CERTAIN

It is announced positively by the officials of the National Observatory that the asteroid Medusa, having been arrested in its orbit by its collision with the comet, is now plunging toward the sun with an increasing hourly acceleration and will undoubtedly hit the earth in less than five months from to-day. Calculations have shown that the point of impact will be in Mexico on the line of latitude passing through Tampico, though it is possible that the body may fall in the Pacific if the time of arrival is a little later than that predicted, or in the gulf of Mexico, if earlier. The opinions held by the leading scientific men of the country as to the immediate effects of the collision differ in the extreme. Some consider that, aside from earthquakes, tidal waves and considerable atmospheric disturbances, the destructive effects will be confined to an area of not more than three or four hundred miles radius. Others believe, however, that the concussion will destroy all life over the greater part of two Americas, and that the "splash" of the asteroid will bury the United States under a layer of fused rock, broken stones, dust, and mud to a depth varying from several miles in Texas to several feet in Maine and Oregon. All agree, however, in the belief that every building in the United States will be razed to the ground by the shock, and that the atmospheric disturbances will be such as to render the loss of life enormous over the entire continent.

The most extreme view is that taken by Professor Katz, of Columbia, who asserts that the impact will reduce our globe to powder. His colleague, Professor Smithers, claims that that part of the earth's surface subjected to the blow will be entirely fused and vaporized, while other scientists believe that the concurrent earthquake shock will travel completely around the earth and destroy all life upon both hemispheres. All agree that, if nothing worse occurs, the vast bulk of the asteroid will penetrate the film of the earth's surface for several hundred miles, the globe's diurnal rotation will be affected, the shape will be changed, and its orbit around the sun will be altered. Ultimate consequences cannot be predicted but THE END OF THE WORLD IS AT HAND!

The civilized world received the astounding news of the pending annihilation of the earth, first, with the amused silence of incredulity, and then with a gasp of horror that swept over the entire surface of the globe. The immediate reaction of the human brain to this inconceivable catastrophe was that of sublime disbelief in its possibility. The finite mind, incapable, as it is, of grasping the infinities, resolutely declined to accept any proposition outside the history of man's experience. Since that moment when the human race in the course of evolution, had appeared

upon the face of our planet, the latter's orbit through space had never been attacked or even affected by any other celestial body, and since the earth had spun for countless millions of years in its regular course about the center of the solar system, and summer had inevitably followed winter, and men had been born, made love, fought, and died, no one was ready at first to accept the simple scientific truth that, if a meteorite weighing perhaps only a single ton could fall flaming earthward to bury itself in some farmer's plowed field, there was no reason, in the nature of things, why a meteorite a million times larger should not do the same thing, or why another planet several times larger than the earth should not shatter it to atoms.

Kings, emperors, presidents, sultans, and rajahs, with their courts, Cabinets, and wise men, treated the preliminary announcement of the observatories of Washington, Moscow, and Greenwich much as they had in the past treated the prophecies of clairvoyants and others that the day of Judgment was positively going to occur on certain specified dates. The newspapers carefully refrained from any editorial comment. Somebody, evidently, had made a big mistake which would presently be discovered, and then everybody would breathe easily again. But, unfortunately, the supposed mistake obstinately continued to remain undetected, and further observations merely served to corroborate those already made and to substantiate, not only the probability but the absolute certainty of what Thornton had prophesied.

Then, with a shriek of astonishment and despair the newspapers of all the nations gave themselves over to this, the greatest sensation in the history of the planet, and the combined energies of astronomers throughout the entire globe were concentrated upon determining, so far as possible, the size and weight of the falling asteroid, and the point upon the surface of the earth which would receive its momentous impact.

It was soon authoritatively announced that its diameter was not less than ninety or more than one hundred and sixty miles, and that, unless it was deflected from its course by the attraction of the moon or of some planet, it would strike the earth in the neighborhood of Galveston, Texas, with a velocity of nearly nineteen miles a second. What the precise result of this terrific concussion would be upon the earth and its movement, it was, of course, impossible for anybody to predict accurately or even imagine.

Would the earth be shattered, or would it resist the titanic blow of this monster from out of space? Would both bodies retain their integrity so that, one embedded in the other in a strange and horrible association, they would gyrate through eternity? What would the effect be upon the earth's orbit, its climatic conditions, and its life? What might happen at the worst, the mind of man refused to conjecture. But it was admitted that, beyond peradventure, the best that could be hoped for would be that the asteroid itself might suffer annihilation - in which event, its shattered

carcass would lie smothering a thousand miles of the earth's surface, changing the latter's axis and sending it staggering along a new orbit under conditions which might render human life upon the globe impossible. And the blow itself! Could life continue after such a shock, which would be greater by ten thousand times than that of the most violent earthquake known in the history of man?

And in the midst of all this rumpus, Professor Benjamin Hooker suddenly stated that he purposed going out in the Flying Ring to meet the asteroid in its fall through space, attack it with the famous lavender ray that had disrupted the Atlas mountains, and either deflect it from its course so that it should not strike the earth at all or blow Medusa into smithereens! Yet his announcement that he intended to sally forth and slay the celestial monster - like a little scientific David - did not tend to assuage the universal terror in the slightest.

PART II

THE FLYING RING

I

Bentham T. Tassifer had had a very hard day indeed. He had discovered, to his disgust, that fear is a great leveler, and that the professional dignity of a deputy assistant solicitor at the Department of Justice counted for very little when the world was on the point of extinction. Like forty or fifty million other citizens of the United States, he had attempted to participate in the scramble to "get onto the lee side of the earth," but his efforts had been totally unavailing.

There wasn't a chance even for him - Bentham T. Tassifer - to get further from Washington than he could be taken in a taxi. To New York, perhaps! But New York had gone mad. Its harbor was blocked with liners, cruisers, tugs, and ferry-boats away out beyond Sandy Hook, so that there was no means of departure for those already loaded with their terrified human freight. Tassifer had expostulated, insisted, ordered, roared that it was imperative that he, if anybody, should at once secure passage for Europe. But berths on the liners sailing from Newfoundland were selling for twenty-five thousand dollars each. And he hadn't the money. He had thought of asking for a war-ship to take him away - like a recalled foreign ambassador - but he had been informed that they were all otherwise engaged. His feelings were deeply hurt. Also, he was - although he did not admit it - agonized with fear. He was only fifty-three. And he didn't want to die young.

He found his wife already at the supper-table and rather snippy; so he resolved to put on a brave front and laugh the matter off.

"Well," she inquired severely, as he removed his napkin from

its ring decorated with an enameled design of the Clan McIntosh plaid, "did you get anything?"

Delicately detaching a fish-ball from its comrades, he made as if he didn't fully understand.

"Get—anything?" he repeated vaguely. "Oh, you mean passage? No—that is, I didn't take your suggestion seriously. Did you really mean that you wanted to run away?"

Mrs. Tassifer fixed him with a pair of fiery, if watery, gray eyes, and her lips drew down into a thin line.

"Bentham," she almost hissed, "don't trifle with *me*! You *know* you are just as anxious to get away from this God-forsaken country as I am—as everybody is! Do you suppose I am going to wait here calmly for a planet to fall on my head?"

Mr. Tassifer was frightened, but he preserved his outward placidity and sampled a piece of fish-ball.

"I don't believe a word of it," he answered, avoiding her glance. "Who ever heard of such a thing? Asteroid—rot!"

"Nobody else thinks it's *rot*, as you call it!" she snapped. "Rhoda certainly knows about such things, and she says it's absolutely sure."

"Rhoda!" snorted Bentham. His wife's niece was a constant thorn in the side of his pride. He resented her cleverness, conscious that, if women got the vote, he could never manage to keep his job—some college girl would get it probably.

"Well, she's a real professor, isn't she?" demanded Mrs. Tassifer, who admired her brother's daughter in spite of her intellectual superiority.

"S'pose so," mumbled Bentham, removing a small bone from his mouth.

"Rhoda says," continued his wife, "that Professor Hooker is going to start out in his flying machine and drive that asteroid off, so it won't hit the earth at all!"

"Ha—ha—ha!" laughed Mr. Tassifer, but without mirth.

"Ha—ha—ha!" she mocked him. "You are very irritating at times, Bentham!"

When she spoke that way, he took warning; that quiet evenness was not to be misinterpreted.

"That crazy lunatic that landed on our golf-course? Bosh!"

"They say he is a very wonderful man," she commented.

Bentham turned round and faced her, for he was now on safer ground.

"Look here," he said impressively: "Take it from me, there's nothing in it—even if Rhoda says so! I saw Seabury at the Cosmos Club last night, and he said none of the big fellows took any stock in this Hooker at all. Stands to reason, it's just — buncombe! Flying Ring! Oh, my!"

"You know Rhoda is awful thick with that fellow just the same," suggested his wife, a little nervously. "I wouldn't be a bit surprised if she tried to get him to take her along."

"What!" exploded Bentham, scattering molecules of fish-ball

over the table-cloth in front of him. "Rhoda go with him? Who ever heard of such a thing! An unmarried woman! What would everybody say?"

"She hasn't admitted it in so many words," his wife answered, "but I can tell by the way she acts. She thinks he's the most extraordinary man that ever lived. Talks about the 'wonderful opportunity' of flying about in space—and all that!"

"Flying fiddlesticks!" he retorted. "If she goes off with that fellow, I'll never have her in the house again—never!"

"Maybe there won't be any house," commented Mrs. Tassifer grimly.

"Don't say that!" he expostulated. "Don't!"

"I *knew* you were afraid," she thrust at him.

"I'm not," he answered defiantly. "I don't believe a word of it. As for getting passage for Europe, it's impossible—I asked at the War Department this morning. I couldn't even get standing-room on one of those open scow-tows the cruisers are taking over. The millionaires have bought up every berth on the liners and tugs. Twenty-five thousand dollars apiece they're asking! What chance has a poor man got, anyway, in this world?" Tears stood in his eyes.

"All the same," she answered, "I'm not going to give up hope. And, what's more, I believe Professor Hooker will be able to do something. I'd like to see the inside of that Ring, too. Rhoda says she can arrange it. Will you go with me?"

"Y-e-e-s," admitted Mr. Tassifer.

II

While it was quite true that the "big fellows" at the Cosmos Club and elsewhere took little stock in Hooker, and the public at large were openly incredulous, it was nevertheless the fact that the announcement of his proposed attempt to destroy the asteroid created an extraordinary amount of interest. For Professor Hooker's plan had at last received the approval and cooperation of the government, and he was now almost ready to undertake his flight. His crew was to consist of Atterbury and Burke, who had been in daily consultation with him for weeks, and little remained to be done except to verify some of their more important calculations and install a new dynamo and their uranium turbine.

Among the privileged few to whom he had offered to exhibit his sidereal war-ship were Mr. and Mrs. Tassifer and, of course, Rhoda.

It was a beautiful spring afternoon about two weeks after the conversation just recounted between the solicitor and his lady, and their chauffeur found great difficulty in threading his way among the crowds of people who had come out, as usual, to struggle for a glimpse of the famous machine that was going to essay a trip through space, not merely for the banal purposes of scientific discovery but actually to attack and alter the course of a

celestial body. Finally having gained the gate without committing manslaughter, they found themselves on a flat parade-ground, in the center of which rested a gigantic, shining, circular tube, seventy-five feet in diameter and fifteen feet thick, built of aluminum plates, and surmounted by the superstructure which had been visible from outside, and which, as Bennie told them, bore the tractor that lifted the car.

"It's the thing at the top shaped like an inverted thimble," he explained. "There's a big cylinder of metallic uranium inside, and we play our disintegrating rays on the under surface of this cylinder from those oblique tubes below. When the rays hit the uranium in the cylinder, the atoms explode, and the decomposition products are shot off downward at almost the velocity of light. A back pressure is thus produced which lifts the Ring exactly like a rocket."

"How long does one of your cylinders last?" inquired Rhoda.

"Atterbury-Pax's engineer, who came back with us—says that a cylinder is good for about a ten-hour run."

"But you can't get very far out into space in ten hours, can you?" she queried. "What will you do when the cylinder is exhausted?"

"I've figured out that we can get up a velocity of over fifteen miles a second with a one-hour run of the tractor," he answered. "If we then shut off the power, our momentum alone will carry us over fifty thousand miles during the next hour. So, you see, we can coast most of the way."

One of the khaki-uniformed guards now detached and lowered a steel ladder and then climbed up and opened a round door in a sort of vestibule on the side of the Ring.

"Now, Mrs. Tassifer," remarked Bennie, "that is the air-lock. It has double doors. When the car is in a vacuum, or beyond the earth's atmosphere, the contained air would all rush out into space if there were any direct communication with the outside. You enter the air-lock from the inside, close and bolt the inner door behind you, open the other door and step out, just as the divers leave and enter a submarine on the bottom of the ocean."

Bennie ran up the rungs, gave Mrs. Tassifer a hand, and then both of them assisted Rhoda, who gingerly ascended to the vestibule. Thence they passed into the large, well lighted chart-room of the Ring, which, except for the glass observation-windows in the floor, looked exactly like a comfortable cabin on board a yacht. This resemblance was heightened by the fact that in the center of the room a number of easy chairs were drawn up around a table, where a teakettle was purring in homelike fashion. Burke, the aviator who had rescued Hooker from the wilds of Ungava, a jolly-looking man of about thirty-five, now made his appearance from the remote interior and was presented to the guests.

"But how could one breathe on the moon?" continued Rhoda, after the introduction, following up an idea suggested by the

presence of the air lock.

"Until we found the Ring, I didn't suppose one could," answered the air-man. "But Pax has worked that all out for us beforehand. In that next room, over there, we found three suits of heavy rubber with helmets and oxygen-tanks, or, rather, small, double-walled cylinders designed to carry liquid air. The slow evaporation of this supplies fresh air to the interior of the rubber suits, the excess escaping through a valve."

The two ladies having expressed some interest in these new "outing suits," Burke obligingly put one of them on and walked up and down the chart-room for their edification. It was a simple-enough device, weighing but little, and resembled a modified suit of diving-armor, although much less cumbersome.

Then Mrs. Tassifer busied herself at the tea-table, and Rhoda strolled over and looked through one of the circular deadlights in the outer wall of the Ring. What she saw was a skeleton framework of steel rods, reaching out like the arm of a derrick and carrying at its extremity a cylinder composed of a yellowish white metal, the open end of which was closed by a plate of some transparent substance. This cylinder, from which the disintegrating ray was discharged, pointed downward, and was held in such a manner that it could be swung or aimed in any direction by means of an electric motor operated from inside the chart-room.

Rhoda eagerly examined all the appliances as Bennie described them in turn, and then followed her host into the adjacent control-room of the Ring, which contained a tangle of complicated machinery and where hung the famous twin gyroscopes, the axes of their thirty-inch disks at right angles.

"These give us our automatic stability," explained the master of the Ring. "They control the slant of the tractor. You see, we rise just like a rocket, vertically at first, the blast shooting straight down through the center of the machine, but when we wish to fly in a horizontal direction at a fixed height, we tilt the tractor, and the blast drives off in an oblique direction. The vertical component of the recoil keeps us up, and the horizontal drives us forward. The gyroscopes act on the rods controlling the slant of the tractor and keep this balance automatically. You see, if we didn't have some device of this sort, our equilibrium would be destroyed every time anybody moved about in the Ring. But we have no idea how the machine is going to behave when we get out into space away from the earth's attraction. She may act like a kite without a tail."

He smiled confidently at his companion, however, as if he had no fears upon that score.

Bentham Tassifer was tremendously impressed by what he saw, for, like most lawyers, he had no knowledge of mechanics or physics, and the sight of a perfectly contrived machine, the equanimity of which could not possibly be upset by either cross-examination or any sort of bullyragging, filled him with vast

respect. He had been especially taken with the gyroscopes and their automatic adjustment—was, in fact, almost converted to the idea that the Ring might actually get somewhere. And now, as he looked around the cozy chart-room, with its crimson-cushioned armchairs and its walls hung with maps of the world on Mercator's projection, on which dotted red lines in great curved loops showed the previous flights of the Ring, he began to feel as if he were an honored guest at the admiral's table on a flag-ship, rather pleased than otherwise with the whole thing and his own vicarious part in it, through being the uncle of the research professor.

He felt very drowsy after the mental exertion of following Bennie's explanations, and the air was indubitably a trifle close in there. Mrs. Tassifer also was having hard work to keep awake. Rhoda, beckoning to Professor Hooker, tiptoed into the control-room.

"Those two old dears will be sound asleep in three minutes," she whispered. "I want to talk to you. Where is the kitchen-galley, or whatever you call it?"

Bennie led her through the condenser-room into a white-tiled apartment furnished with both gas and electric stoves. There were chairs there and a table, and Rhoda took possession of one and pointed to the other.

"Yes," she repeated; "I want to talk to you—seriously."

The ordinarily unobservant Bennie noticed that she was dressed in the same trim tan suit she had worn when he first met her, and that her cheeks were quite pink. She looked very nice there, in that white-tiled room—very nice indeed! This was the second time he had been struck by that salient fact. If all girls were like *her*! But most of them were, unfortunately, more like Miss Beebe. He sat down opposite her and lit his pipe. Somehow, he never felt the slightest awkwardness when in her company—always at his best! She had a brain like—well, even better than Seabury's, for instance, and a figure— His eye followed the line of the tailor-made suit, and his heart pumped noticeably. Too much tobacco, he thought.

"Look here," she said, with determination: "Don't start this fool adventure. There is still the possibility that the moon may turn the asteroid aside." He looked at her, astounded. "Oh, I mean it!" she insisted, wrinkling her brows. "This machine is all very well—in theory. It will go. But we all know that it won't come back!"

"Of course it will come back," he retorted, "unless it busts!"

"It's a thousand-to-one-shot!"

"Supposing it is—isn't it *up* to me to go?" he replied simply. "It's the only chance to save the earth from destruction. I'd be the worst sort of a coward if I didn't. You wouldn't want me to show the white feather—now!"

He stopped short at the look in her eyes—such a queer look. Her cheeks had become quite pale.

"No," she answered, in a low voice, but still with a question in it. "Then you are resolved to go?"

"Absolutely!" He gripped his pipe-stem hard between his teeth.

She looked down, and the red came back into her face, stealing gradually from the collar of her almost military jacket to her eyes.

"Then take me, too!" she said.

"You! I *will* not!" he answered brusquely.

"Please! Don't you think you almost owe it to me? It was my idea—and I worked out your equations for you. I ought to have some of the fun."

"Don't be foolish," he urged, although he hated to deny her anything. "You've got your life to live. You're young and clever and—and pretty"—his own features had become unaccountably warm—"and—and—what's the sense of it? Of course, it's a very uncertain project—this space-navigation. I wouldn't let you risk your life in this blooming car for—for anything! No—by thunder!"

My life is my own—isn't it?—if I want to sacrifice it to science, as you purpose doing with yours?"

"One of—us—is enough," he announced with conviction.

Somehow, the word "us" sounded curiously personal. She raised her eyes to his, and there were tears in them. The flush had spread over her whole face and to the very roots of her dark-yellow hair. He had never seen her so before. She had always been so capable, so crisp, so cool—and now she was so—young, and pathetic almost. He had a strange inclination to reach over and put his arm along the back of her chair. And then she gave him a funny, teary little smile.

"That's—just—it. *One of us—isn't enough—for me!*"

Something blurred Professor Hooker's sight. There was a roaring in his ears like that of a thousand pine trees in a gale.

"How do you mean?" he heard himself asking, in a weirdly conventional tone, although he knew what she meant all the time, and the knowledge seemed to be swelling him up like a balloon. Indeed, he felt as if he was just coming out of a dose of laughing-gas—inflated and very much excited and irresponsible.

The next instant, he was kneeling on the tiles in front of her; those tailor-made arms were around his neck, and his face was pressed up against the tan jacket, and her hair was tickling his ears.

"You funny little man!" she was saying, in a trembly voice.

"You funny, silly little man! I won't *let* you go without me."

And Bennie answered—he could feel her heart beating through the tan military jacket:

"Silly little thing yourself! Do you think I'd let you take a chance like that *now*—dear?"

"You must!"

"I won't!"

He raised his head and drew down her face to his.

"I simply—simply—w-won't!"

"Rhoda! Where are you?"

Mrs. Tassifer's acrid voice echoed through the Ring from the control-room. Bennie scrambled to his feet and hastily lit his pipe.

"Yes, auntie!" she called back sweetly, with a whimsical glance at Bennie. "I'm in here looking at the electric stove—such a funny little thing!"

III

As the date set for the departure of the Flying Ring on its amazing venture drew near, a furious controversy arose in the newspapers as to the feasibility of Professor Hooker's project. Leading scientists wrote technical letters demonstrating not only that the Ring could not possibly be controlled in space when beyond the earth's attraction, but that it was manifestly absurd to suppose that it could even get away from the earth's attraction at all. One distinguished pedagog was particularly insistent upon the point that the gravitational force of the earth was a *sine qua non* for steering the Ring in a given direction. He demonstrated conclusively—to himself, at any rate—that, once in the pure ether, the Ring would be like a rudderless ship, quite unmanageable and unable to meet and oppose any external influence. But another, equally celebrated, immediately countered on him with great effect by showing that, once in space, there would be no external influence to alter the direction of the flying machine. Going his opponent one better, he gave it as his own opinion that the Flying Ring would never even start—couldn't get off the ground!

Bennie, Atterbury, and Burke read all these letters, articles, and editorials with considerable amusement, spending all their waking-hours in the Ring, overseeing the installation of the new apparatus and making plans to meet all possible emergencies. The longer they waited—and the collision between the earth and the asteroid was due to occur on April twenty-second—the less distance it would be necessary for the Ring to traverse to meet its enemy. They had, therefore, arranged to leave the earth on April twentieth.

But while all these preparations were being made, a great migration—like nothing in the history of mankind save possibly the western movement of the Huns and Ostrogoths—was taking place from Lower California and the Southwestern states, northward along the Pacific coast, across the deserts of Arizona and Nevada, and eastward across the Gulf of Mexico by tug, barge, and steamer, as hundreds of thousands of Mexicans, miners, cowboys, and their families sought to escape their impending doom. The migration, however, was not confined to the Southwest. A large proportion of the total population of the Northwestern states also streamed across the boundary into Canada and British Columbia. The rivers were choked with flotillas of boats; flat cars and coal-cars brought fabulous prices and took the place

of Pullmans; while a millionaire who could commandeer, beg, borrow, steal, or purchase a cattle-van was regarded as fortunate indeed.

In the East, where there was, perhaps, less actual hysteria, millions of men, women, and children clamored with but a single voice for passage to Europe or to any port upon the other side of the world. At Boston, New York, and Baltimore, the congestion from incoming and outgoing ships was so great that passengers could speak from vessel to vessel until they were well out to sea. The same situation prevailed at San Francisco. For every mere thousand who escaped through the Golden Gate, there were millions more who either could secure no passage or who had not the means of paying for it.

To be sure, the daily papers were still published, and a pretense was made at keeping office-hours. But most people were actively engaged in excavating subcellars in their houses, to which they might take refuge from the prophesied deluge of rock and slag. The minds of many, of course, refused to grasp the situation. This was particularly the case with the very old, who remembered having been fooled before by these scientists. Hadn't the papers, only ten years before, stated that the earth was going to pass through the tail of Halley's Comet? And hadn't everybody sat up for three whole nights without even *seeing* a comet? And, after it was all over, the scientists had said that the event had really occurred, only nobody had known about it. They nodded their heads, averring that it would be the same way with this asteroid business that everybody was shouting about. Anyhow, there was no use worrying yet a while. But, in spite of these octogenarian wiseacres, by the first of April, the population of Canada had increased, at the expense of the United States, by twenty million people, and, as the weeks passed and the new green star burned brighter every night, people began to ask each why something was not done—why the Ring did not start upon its journey.

Unmindful of the conflicting emotions which he inspired, Bennie Hooker quietly and calmly went about his work, with no thought of posing as a modern Perseus about to attack and slay a fiery Medusa.

IV

At last, the great day—the greatest day in the scientific history of mankind—dawned clear and still. Not a cloud broke the calm continuity of the blue. It seemed almost as if one could see into the distant infinity of space—whither the newspapers all said it was Professor Hooker's genuine intention to go. These papers also announced that it was the purpose of the space-flyer ("aviator" being an obviously inaccurate *descriptio personae*) to wait until the earth's revolution upon its axis should bring the asteroid directly above the Ring, thus avoiding the necessity,

once he had started, of altering the direction of flight. This would not occur until about midnight.

Bennie had packed his valise and, accompanied by Atterbury and Burke, had reached the field at an early hour. The machinery had been given its final test, and fresh provisions taken on board. All was in readiness for the flight. But would the machine fly? That was the question. It had flown once, to be sure, but would it fly again? No one could tell.

The Ring had been raised on a rough trestle of timbers to facilitate the start by furnishing a path for the escape of the air vortex carried down by the blast from the tractor. The steel fence which had been built around the machine had been removed, and a barbed-wire enclosure, over a quarter-mile in diameter, had been thrown around the Ring, this being the danger-zone, as calculated from observations of the destruction wrought at the golf-links when the Ring landed. By three o'clock, there was closely packed outside of this barrier a dense mass of humanity, estimated at not less than two hundred and fifty thousand persons.

These remained, patiently waiting for that sight which no more than half a dozen pairs of eyes had ever seen before. At eight o'clock, a heavy limousine pushed its way through the crowd, was admitted by the guards, and rumbled its way across the field to the foot of the landing-ladder below the great cylinder, and from it emerged President Thomas, of the National Institute; Professor Evarts, of the Observatory, Mr. and Mrs. Bentham T. Tassifer, and their niece, Miss Rhoda Gibbs, over whose shoulder was slung a small camera. At the honk of the horn, Bennie appeared at the air-lock, turned on an electric light at the head of the wooden stairway which led up the side of the scaffolding, and welcomed his guests, one by one, as they made the unaccustomed ascent to bid farewell to the "Columbus of the Universe," as Professor Hooker was now half sarcastically called by the newspapers. Inside, the chart-room was warm and brilliantly lighted. The last extras containing "full accounts" of the preparations for the trip into space lay upon the center-table—preparations of which the world, except the three men themselves, knew nothing. In fact, these three had so fully tested each piece of apparatus, so carefully made all their preparations down to the minutest detail, that they had only to fasten the air-lock, throw over the switch connected with the dynamo, and their journey would be begun without more ado. Indeed, the visitors felt that, after their struggles with the crowd outside the gate, it was almost an anticlimax to find the three so calmly facing the prospect of a flight into eternity, and, after a few moments' conversation, shook hands and prepared to depart. The clock pointed to nineteen minutes to nine. The start was to take place precisely at eight-fifty. At the bottom, they all stopped and looked up. Bennie waved his hand to them.

"Good luck!" shouted Tassifer. "Don't stay way too long!"

Then they turned to the waiting motor and began to climb in.

Hooker, somewhat unnerved, in spite of himself, at seeing the last, as he feared, of Rhoda, withdrew quickly through the air-lock into the chart-room. It was now eight-forty-seven—only three minutes more! Atterbury had gone into the condenser-room. Burke was at his post in the control-room.

"Are you both ready?" called Bennie.

"Ready!" answered Atterbury.

"Ready!" came the cheery voice of Burke.

Down below, the party had all squeezed into the motor except Rhoda—who stopped with her foot on the steps.

"Oh dear, I forgot to leave the films!" she exclaimed. "Don't wait. I'll just run up the ladder and then hustle after you to the gate."

The chauffeur started the motor. Above her towered the gleaming cylinder of aluminum. What if the air-lock had been finally closed? No; the ladder had yet to be replaced. Hurriedly she climbed up and entered the lock. The door into the chart-room was ajar, and she could see Bennie as he walked to the door of the control-room to ask if all was ready. Swinging it wide enough to slip through, she threw herself on the floor in the shadow of one of the long wicker easy chairs. Bennie turned, glanced at his watch, and, stepping to the lock, hauled up the ladder and closed and clamped both doors. For a moment, he stood under the big lamp, its white light shading the big hollows beneath his eyes, the tense lines about his mouth. No wonder that his face was drawn! He was about to speak the word that would sever—perhaps for all eternity—their connection with the earth.

"Rhoda!" he murmured, unconscious of her presence.

An impulse almost overcame her to cry out to him, to beseech him not to set forth upon this crazy if marvelous adventure. But before she could speak, Burke appeared in the doorway.

"Well," he said, "everything's ready. What are you waiting for?"

Bennie pulled himself together with a jerk, walked over to the window, and looked out and up into the sky.

"It looks all-fired dark and cold up there," he muttered.

Then, turning, he caught Burke's eye, and the latter smiled.

"Well, that's where we're goin', ain't it?" inquired the aviator.

Bennie set his teeth and walked over to the speaking-tube which communicated with the condenser-room.

"All right, Atterbury!" he called sharply. "Turn her loose!"

V

The gate of the entanglement opened just enough to permit the exit of the motor bearing the irate Tassifers, and was instantly closed behind it. But once outside, it was impossible to proceed further, for the crowd had now swelled to such proportions that it absolutely blocked all movement.

"We're stuck—and that's all there is about it. They might just

as well have let us stay inside," scolded Mrs. Tassifer. "We might as well make up our minds to stop right here and see whatever is to be seen. Don't let those men climb on the roof of the car, Bentham. Just look at them!"

Tassifer had caught out of the corner of his eye the dangling ends of a pair of trousers supplemented by a heavy pair of mud-covered shoes swaying outside the window of the limousine.

"Here you! Come down out of that!" he roared, grabbing at the legs and loosening the owner from his perch. "If anybody's going to sit up there, *I'm* going to! I paid for this car."

The man landed heavily amid the jeers of the onlookers, and Bentham, opening the door, climbed on the driver's seat and swung himself up to the roof. Here, at a height of nine feet above the crowd, he had a magnificent view on all sides.

The great bulk of the Ring loomed dark in the moonlight. High in the heavens, a little east of the meridian and not far from the red-flushed planet Mars, Medusa shone with a pale, greenish light. It was easy for a trained eye to pick it out, though it was not a conspicuous object, even at its present distance of less than two million miles.

"Speech! Speech!" yelled the spectators, instinctively recognizing that Bentham was a ridiculous person.

"Shut up!" he retorted, in his most aggressive manner, and somehow suggesting a fugitive cat on a fence. "Mind your own business!"

"Hooray!" cheered the crowd unanimously. "Speech!"

Tassifer glowered at them mutely. There was nothing to throw.

"Don't mind them, Bentham," came plaintively from within the car.

He might have jumped on their heads—committed any degree of manslaughter—had not a sudden murmur directed his attention toward the Ring.

A dull purring sound filled the air.

Then Tassifer grabbed at his tall hat.

A rush of wind spread out from the center of the field, carrying caps, newspapers, and other light objects over the heads of the onlookers. The purring sound increased in volume, and presently a faint glow appeared at the top of the tripod, and a yellow beam of light shot down through the center of the Ring, throwing the cross-beams of the wooden scaffolding into bright relief. The wind increased to a gale, and dust filled the air. The ground shook under the impact of the yellow blast of helium which drove down from the tractor with a roar like that of a Niagara. Through the whirling clouds of dust, Tassifer caught a glimpse of what appeared to be the sudden explosion of the scaffolding—great timbers and joists flying through the air, followed by the collapse of the entire structure, which fell with a crash and was promptly torn to pieces, blown apart, and scattered over the ground by the typhoon which whirled in every direction from the middle of the aerodrome. The Ring, though deprived of all support, did not fall,

however—it remained suspended, as it were, in the air—nay, it was rising, slowly and majestically at first, like a balloon, and then faster, with the rush and roar of a rocket. Ten seconds, and it had risen a hundred feet. A minute, and it had soared two-thirds of a mile above the field. And then it darted up, up and almost out of sight, leaving a fading streak behind it like that of a shooting star.

"Gee whiz!" gasped Tassifer. "Hookey!"

Even his associate solicitors in the Department of Justice, had they heard, would have forgiven him. It was an echo of his first infantile vision of an elephant.

A white mass of faces followed the upward lift and rush of the Ring, which now, with its trail of yellow light, was vanishing toward the moon, its roar but faintly audible amid the extraordinary silence of the multitude. Then, nothing could be heard. The Ring, now at a height of eighteen miles, was in an atmosphere so rarified as to transmit no sound.

Suddenly Mrs. Tassifer's face appeared in the aperture below.

"What do you suppose has become of Rhoda?" she inquired.

VI

Less than a mile away, Professor Thornton stood at his window in the observatory watching for the burst of light which, if it came, would indicate to him that the Ring had started upon its flight into space. He had already been to the equatorial-room and revolved its dome until the mouth of the great telescope pointed in the general direction which the Ring would presumably take. Medusa was almost at the zenith, her pale-green light somewhat dimmed by the light of the full moon, which blazed in the sky a few degrees to the east of the asteroid. He glanced at the clock. It was already quarter to nine. Perhaps Hooker might not start on time, after all. Something might go wrong with the complicated anatomy of the machine; some unexpected delay might occur—in which event he, Thornton, would not be notified and would wait at the telescope vainly searching the heavens while, perhaps, the Ring would suddenly start on its flight—the direction slightly altered from that as originally planned—and he would miss it altogether. So he returned to his office to observe with the naked eye the departure of the Ring, note its general direction, and make sure of getting it in the finder of the telescope.

For Thornton had never doubted that the Ring would start. He had known Hooker, boy and man, for nearly thirty years, knew that he was a practical as well as a brilliant scientist, and, when Pax had threatened to knock the earth topsyturvy, had himself been the one to rout the professor out of his scholastic seclusion on the Appian Way in Cambridge, and stimulate him to those investigations which shortly resulted in the discovery of the valley of the Ring in Ungava and the navigation of the air-craft back to the United States.

Thornton did not question the ability of Hooker and his comrades to navigate space in the great machine, or the power of the lavender ray to destroy Medusa or any other heavenly body. What he feared was the unknown factor of chance, always arising when an experiment is hazarded under new conditions. What did they know of space? Would their liquid-air tanks accomplish their purpose? What would be the effect of the complex and opposing forces of attraction to which, once outside the sphere of the earth's gravitation, this new man-made meteor would be exposed? Could the Ring be "turned" so as properly to alight? Would it turn? Would the human organs function under these extraordinary artificial conditions? Would, in fact, the brain work properly or logically when no natural premises were left from which to reason? Well, they would see! But the Ring would start! Oh, yes, it would start—and its departure would be caught on the film of the automatic moving-picture astronomical camera attached to the big telescope—provided, of course, that he succeeded in following its meteoric flight.

The observatory stood on the top of a small hill, and, from his window, Thornton could see across a sea of tumultuous housetops, colorless in the moonlight, to a dark strip where lay the aerodrome.

He raised his eyes and gazed up through the heavens, that looked almost like a field of pale-blue corn-flowers sprinkled with a myriad of daisies, into the deeper blue of the infinity behind and beyond the Milky Way, just as he had looked through his big telescope now for nearly thirty years. That vast, blue-black arch had always looked the same—save for the slight changes in the celestial bodies themselves which were his life-study. Blue, deep blue—flash! Suddenly the heavens were no longer blue but dazzling white. The silence of night was shattered by a roar from the sky above the aerodrome. The Ring! It was off!

Half blinded by the glare, he rushed to the equatorial-room. Already the intense brilliancy had died away, but through the yawning gap in the roof he caught a glimpse of a fast-fading streak of yellow light. Toward this streak, he turned the telescope—but it was no longer there! Upward again—and then, at last, he caught it in the finder—a glowing dot—and brought the cross-wire upon it—only to lose it, so rapid was its flight. Once more, and a third time, he caught it on the cross-thread, but it passed out of the field of the larger instrument before he could shift the position. A fear that he would never succeed in bringing the giant lenses to bear upon it seized him. He knew that if he could not pick it up within the first few minutes, it would be hopeless to find it.

Then, unexpectedly, there it was—slowly descending into the field of the telescope, its yellow beam pointing directly upward. For a moment, he almost forgot that the astronomical telescope inverts the object. Once more he fixed his eye at the finder. He could see distinctly the under surface of the Ring, illuminated by

the light of the glowing gas which streamed beneath it, while the blinding glow of the helium jet, seen nearly end-on, looked like a great ball of fire in its center. It reminded him forcibly of the planet Saturn. Was it possible that his old friend Bennie Hooker, with two companions, was inside of that minute, flaming pellet?

Momentarily it grew smaller. The minutes passed; the hour came and went, and still Thornton stuck at his post. At nine-fifty, all that he could see was a faint wisp of pale-yellow light, like an almost invisible comet. He estimated that it would remain visible for perhaps fifteen minutes more, and then—good-by!

Suddenly, to his utter amazement, it commenced to fade, and in eight or ten seconds more it vanished. He wiped his glasses and anxiously looked again. There was no sign of the Ring whatever. He glanced up at the sky over the telescope, but it bore no trace of cloud. The Ring had been completely swallowed up in the abyss of space!

"Good God," he thought, "something has gone wrong, and they are falling back!"

He did not know that the Ring was at that moment flying out into space with a velocity of over twenty miles a second, and that Hooker had stopped his driving machinery and was depending upon the momentum of his machine to carry him over the remainder of his journey—in other words, that he was coasting out to his encounter with the asteroid Medusa.

PART III

THE FLIGHT OF THE RING

I

"Turn her loose!" repeated Hooker, and stepped swiftly to the nearest port-hole, while Rhoda, lying in her place of concealment behind the chair, clutched at the floor in breathless apprehension. A humming sound filled the air. Through the open door of the lighted control-room, the girl could see the gyroscopes slowly beginning to revolve. The Ring throbbed as if alive. Fear seized her. Perhaps she could still escape from her voluntary imprisonment. Perhaps she could even yet open the air-lock and leap safely back to earth. She almost longed for her aunt.

And then her courage came back with a rush. There was her lover—her funny little Bennie—staring out of the window, a strange expression of exaltation on his face. Here was where she wanted to be—with *him*! With him, on his strange, unearthly journey! With him amid the stars, journeying to the music of the spheres!

Through the window she could see flickers of yellow light, and from outside came a noise like escaping steam. The glow cast strange shadows on Bennie's face, and gave his features a pallid tinge that frightened her anew. The discharge from the tractor had risen to a muffled roar—deafening. The floor trembled



and quivered, and the glare, now pouring through the deadlights, paled the electric lights of the interior. There was a tremendous hullabaloo going on out there. She clambered to her feet.

"Bennie!" she shouted instinctively, holding out her arms to him.

Amid the tumult, he turned to her a face like that of a man who sees a ghost.

"My God!" he gasped. "How did you get here?"

She walked unsteadily toward him and clutched his arm.

"I'm going, too," she said. "I told you I would. I'm a stow-away."

Bennie put his arm around her waist and dragged her to the window.

"Now you're here," he cried hysterically, "just look at that!"

A typhoon of glare and noise was raging outside, roaring down from the tractor through the center of the Ring, and a blinding cloud of dust, illuminated by dazzling yellow light, was driving out and away from the base of the staging in the gigantic circle. The earth below them was completely concealed from view by clouds of vapor, dust, and steam, shot through with phosphorescent gleams that made it look like the mouth of some devilish caldron. From the swiftly spinning disks of the gyroscopes in the control-room came a draft that blew the newspapers off the table. The floor quivered under their feet, and ominous creaking and snapping sounds reverberated through the outer shell, as the beams of the staging were gradually relieved of the weight.

"We'll be clear in a moment!" yelled Bennie in her ear.

She clutched his arm tight.

"Will it hurt?" she asked, almost piteously.

"Not much," he answered. "Hold fast to the rail, and don't bend your knees. We'll be going off with a pretty big acceleration."

The tumult increased in volume, and suddenly there came a crash accompanied by the sound of splintering timbers as the staging collapsed, blown to pieces by the blast. The floor seemed to sink away from beneath their feet.

"We've blown that staging into the middle of next week!" chuckled Bennie.

The room swayed as the Ring, lifted by the tractor, rocked drunkenly from side to side for a second or two. Then, as the machine steadied itself, there came an upward pressure from the floor again and a sudden increase in their weight, which told them they were rising.

Rhoda, who, in the excitement of the moment, had forgotten Bennie's instructions, felt her knees bend quickly under her and found herself upon the floor, where an unseen, relentless force seemed to be pressing her down. Above her, Bennie had dragged himself up the spiral stairway to the small observing-stage which hung suspended from the ceiling, and was now lying on his back, with his eye glued to the vertical telescope that pointed up

through the glass deadlight in the roof.

Burke, who, at discovering Rhoda's presence, had merely nodded and grinned as if not at all surprised at her being there, stood at his post near the side window with his hand on the control-lever. To him, Bennie gave his orders from where he lay.

Medusa, the bluish green star which was their destination, swam in the firmament well off toward the edge of the field of the telescope; the direction of their flight must needs be altered until the asteroid touched the illuminated cross-wires at the center. "More to the west!" shouted Bennie. "More—more—still more! Hold it! Too far—back a little! Now you're on the wire—a little south! More! Hold! There we are! All right!"

He scrambled to his feet, and descending the stairs too hastily, landed in a heap at the bottom.

"My Lord," he groaned, rubbing his shins; "I nearly broke my leg! Never run down-stairs when you're going up. Be sure and remember that."

Rhoda, meanwhile, flat on the floor, half sick from the acceleration, with her face pressed against the lower deadlight, watched the earth rush downward and away. At first she could see nothing but the dazzling cone of yellow light that shot away from them

like the tail of a great rocket, but presently, by partially shielding her eyes with her hand, she was able to discover a great and ever widening ring of yellow dust, with ripples of light and shade chasing each other outward, and, in the middle, a maelstrom of earth and shattered timbers. Then she saw that the lights of the city and of the neighboring towns seemed to be flowing in from all sides to a point just below her.

"Twenty thousand feet!" yelled Burke, shouting out the readings of the manometer as they rose. "Thirty thousand!"

Hooker crawled along the floor to her side, and she clutched his hand.

"Oh, Bennie," she exclaimed, "it's perfectly wonderful! But I'm scared almost to death."

With his head close to hers, he looked down into the black void at the retreating earth.

"Sixty thousand!" sang out Burke.

The lights of Washington had now fused into a pale-yellow, phosphorescent spot. A silver thread showed where flowed the Potomac, and, off to the north, another path of luminous haze—Baltimore—was gradually crawling in toward the first, and still farther off a third and fourth—Wilmington and Philadelphia. The surface of the earth in the moonlight had taken on a frosty, bluish tinge, while, from the east, a darker shade was drawing in like a curtain—the sea.

"Ninety thousand; nearly twenty miles up—and running like a watch!" chirruped Burke.

A few minutes, and the whole Atlantic seaboard was spread out below them—New York, with its more congested illumination, glowing like a planet. The whole mass of the globe's surface

gradually came into view as the Ring drove up and out of the earth's atmosphere, the mountain ranges shining like necklaces of jewels and the Great Lakes showing as darker patches, while everything else remained misty and obscured as by a dense haze.

"One hundred and fifty thousand!" intoned Burke. "The manometer no longer registers. We shall be out of the atmosphere presently. We're getting into space!"

For a while, they remained silent. Then Bennie and Rhoda noticed that the helium blast from the tractor had diminished in intensity, assuming a pale straw-color, and its roar had subsided to a faint and scarcely audible purr.

"What's happened?" she asked nervously. "Are we running down?"

"No," Bennie replied; "we're getting out into the ether. There is no air to oppose the radiant discharge or to transmit the sound. But you feel the drag, don't you? That shows that the tractor is still giving the same lift."

"How fast are we going now?" she asked in awe.

Bennie glanced at his watch.

"It's just twenty minutes since we started. We must be doing about twelve thousand feet a second, and are probably well over a thousand miles from the earth already."

They lay speechless, gazing down through the deadlight for ten or fifteen minutes—at the end of which period Bennie suddenly started to his feet.

"By George, I almost forgot something!" he exclaimed. "It's time for me to rig my ropes."

Hastily going to an adjacent cupboard, he removed several coils of clothes-line, which he began to fasten systematically to small steel staples attached to the floor, sides, and ceiling of the chart-room, running them back and forth and diagonally across the interior.

"Is this wash-day?" jocularly inquired Rhoda.

"Those are life-lines," replied Bennie. "Another twenty minutes, and we shall stop our engines and coast. Then you'll find it difficult to get around without something of this sort. Gravitation will no longer be felt. I figured it all out long ago. You see there isn't really any 'up' or 'down' out here, and, if you get out of position, there is nothing to pull you back where you belong again, unless you have something to grab hold of."

In fact, the room now looked as if a gigantic spider had been at work in it. Clothes-lines radiated everywhere from the chart-table, one leading directly to the door of the air-lock, another to the wardrobe, and the last into the control-room, where Atterbury was likewise engaged in rigging more "aerial roads."

These precautionary measures having been arranged, they all partook, at Bennie's suggestion, of a light supper, in order to avoid the inconvenience to which they might be subjected in handling plates and glasses when, later, the dynamo having been shut off, there should be no downward pressure from the lift of the Ring.

"We've had the tractor running now for something over an hour," remarked Bennie presently. "Suppose we shut it off and coast for a while. We must now be over twelve thousand miles from the earth, and moving about seven miles a second. There's no longer the slightest danger of falling back, and it's almost impossible, with all that light in our wake, to see anything."

So saying, he walked heavily over to the speaking-tube and rang the electric bell.

Shut her off for a bit!" he shouted to Atterbury. "But stand by the switch until I call you!"

Then he returned to the deadlight and threw himself on the floor again.

"We're going to get a new sensation now, all right," he said, "but don't be alarmed. It isn't anything to worry about."

The shrill note of the dynamo dropped rapidly in pitch, and the glowing wake of helium beneath the car faded away slowly and presently disappeared.

The Ring was coasting.

It was at this precise moment that Thornton had lost it in the finder of the big telescope at Georgetown. As the helium blast died away, a curious sensation made itself apparent to all of them. The pressure which had drawn them to the floor gradually relaxed, and their bodies became lighter. Hooker placed his hands on the floor at his side and, pushing down gently, raised himself to the full length of his arms, easily supporting his weight on the tips of his two forefingers. Then, suddenly, he raised his hands, and, to the surprise of his companions, instead of falling, he slowly settled back to his original position, like a body suspended in water.

"We shan't weigh anything in a moment," he announced. "The tractor is still pushing a little, but, as soon as it stops entirely, good-by to gravitation!"

There was now no sensation of movement in the car, which seemed, as it were, to be hanging motionless in space. Like the inhabitants of the earth, who are being carried through the universe at a speed of sixty-eight thousand miles an hour, the travelers were unconscious of their transportation.

"How do you mean—weigh nothing at all?" demanded Burke. "Isn't the earth attracting us still?"

"Of course," retorted Bennie, "the earth is still attracting us, but its only effect will be gradually to reduce our velocity."

"Oh dear, I certainly feel very queer!" suddenly declared Rhoda. "I feel as one does in a 'flying' dream—terribly weird inside, I'm afraid I am going to be ill."

"No, you're not," Bennie encouraged her. "That is just an impression. You see, out here in space where we don't weigh anything, neither do our insides. They just sort of float around, and all the supporting membranes relax. It will pass off in a minute."

"Sure it will," put in Burke. "You get the same thing, only

not as bad, when you make a fast dive in an aeroplane or drop through an ether whorl. I've noticed it often."

"Try holding your breath for a minute," suggested Doctor Bennie.

"I'd rather hold your hand, I think," she said softly, with a little blush. "But I'm beginning to feel better already."

"Now the fun is going to start!" announced their commander. "I think I'll leave you. Please excuse me for a moment."

He pressed quickly against the floor with his hands, and floated slowly up into the air over their heads until he grasped the stage below the telescope.

"I've got to take a squint at Medusa and see if we're on our direct course," he called down over his shoulder, at the same time navigating himself into position under the telescope. Holding the eyepiece lightly between his fingers, he reclined easily in a horizontal position in an attitude of rakish nonchalance in mid-air.

"We're a degree or two off, but it will do for the present", he said. "Now, here I go again!" And, thrusting lightly against the telescope, he sailed over their heads on his back with his arms at his side.

"Heavens!" cried Rhoda, half rising from her chair.

To her consternation, she also floated upward and, still in a graceful sitting posture, sailed slowly up to the ceiling to Bennie's side.

Burke shook with laughter.

"Human Zeppelins, by thunder! How are you ever going to get down again?"

Rhoda wrapped her skirts tightly around her ankles with one hand and waved to Burke with the other.

"Why don't you come up and join us? It's fine!"

Professor Hooker assumed an expression of great solemnity.

"Action and reaction—to use the words of one I. Newton—are equal and opposite in their effects," he declaimed, giving Rhoda a slight push to one side, which caused them to drift apart until they bumped lightly against the opposite walls of the room. "Isn't this great? If we'd only brought along some balls and cues, we could play billiards in three dimensions."

Burke had thrust his face close to the deadlight and was peering down into the abyss of space that yawned below.

"By George," he cried, "you're missing something! Better come down here and take a look."

"But how shall I get down?" gasped Rhoda, in great embarrassment. "What on earth shall I do!"

"Not what you do on earth," grinned Bennie. "Grab a life-line and pull yourself down. We're in the center of the universe—so to speak."

Together they slowly drew themselves back to the chart-table by means of the clothes-lines and then to the deadlight.

The glare from the tractor had now entirely disappeared, and

the Ring swam in the Stygian darkness of space. Their first impression was that the earth had vanished. In its place was a vast black firmament crowded with millions of blazing worlds. Though the great orb of the moon was full, and shone like a sun through the pure ether above their heads, the lunar light, undiluted and undimmed by the earth's atmosphere, diminished in no way the brilliancy of the stars. It was a new and marvelous effect—the black-velvet robe of night studded with incandescent and apparently motionless orbs, which gleamed like resplendent meteors in countless myriads on every side, but with a calm and absolutely steady light.

Then, as they looked, they saw, just below them, what appeared to be a vast black hole in the darkness, covering perhaps one-tenth of the sky, within which not a single star could be seen.

"Put out the lights," directed Bennie, rubbing off with his handkerchief the condensation, due to the intense cold of interplanetary space, which had formed on the inside of the deadlight.

And now, as their eyes grew accustomed to the darkness, they saw that the great circle in the galaxy of stars was not quite black but shone with a pale-gray, ashen phosphorescence, through which they could eventually discern the outlines of the continents of North and South America. This huge circular disk, which blotted out so much of the night below them, was naught but the dark side of the earth illumined by the light of the moon alone.

For many minutes, they gazed in silent wonder at the distant globe. No sound, no movement suggested the fact that they were flying through space at the rate of twenty miles a second. The only indication of their flight was the gradual, almost imperceptible shrinking that went on in the size of the earth beneath their feet.

"Atterbury ought to see this!" exclaimed Burke suddenly, and, acting upon his own suggestion, he moved himself, hand over hand, to the tube and called to the engineer, who, after a few moments' delay, made his appearance. He had hardly joined the others around the deadlight when a silvery light manifested itself in the form of faint streamers stretching out from one side of the dark circle of the earth below. Each moment these streamers increased in length and brilliancy.

"What is going on down there?" cried Burke, in excitement. "Is the old globe on fire?"

"That must be the sun's corona," answered Bennie. "We've been watching an eclipse of the sun by the earth. It was night when we left Washington, so, of course, the sun was *behind* the earth. I hadn't thought of it before. Now we are getting near the edge of the earth's conical shadow, and before long shall be out in full sunlight."

"How wonderful!" gasped Rhoda. "That alone makes the trip worth the taking!"

"Look!" cried Bennie. "The sun is coming—watch!"

A half-ring of luminous violet light now encircled the great

disk of the earth. Gradually it increased in brilliancy, changed to white, and finally to orange-red. Then, as the Ring shot out of the cone of the shadow, the rim of the earth kindled with a blinding glare as the blazing orb of the sun emerged like a golden furnace.

Immediately the air turned warm, and the frost disappeared from the glass of the window. Yet, in spite of the fact that the universe was filled with light, the sky remained as black as midnight and was still filled with undimmed stars. There being no atmosphere, no light came from the sky, and the sun, burning out of a profundity of darkness, produced no illumination inside the car except to project through the glass window a circular spot of light upon the ceiling, which shone there like an arc-lamp in an opal globe. Thus, the interior of the car, in spite of the fact that they were in full sunlight, was illuminated only by the light which radiated from the glowing spot over their heads. And now the unimpeded rays of the sun, playing directly upon the sides of the aluminum car, began to raise the temperature inside it to a degree almost insupportable.

"Phew!" gasped Burke. "If we don't take care, we shall melt."

Bennie turned on a switch beneath the table, to the side of which was attached a spirit thermometer. It indicated eighty-nine degrees.

"It will only take a few seconds to fix this," he assured Rhoda. "You see those jacketed coils there—running around the room just above the floor? That is our cooling apparatus. I have just turned it on. Watch the thermometer.

The men had taken off their coats, and Rhoda was fanning herself violently. But, even as they watched it, the thermometer began to fall until the instrument registered less than seventy degrees.

"Really," exclaimed Rhoda, in admiration, "what a perfect housekeeper you are! You don't happen to have a soda-fountain under that table, do you?"

Bennie laughed.

"No; that was something I forgot. But I can give you a glass of ice-water if you like."

"If you please," she acquiesced.

Bennie pulled himself over to the water-cooler, where he held a pitcher under the spigot and opened the cock. But nothing happened.

"What's the trouble?" inquired Rhoda.

Bennie grinned.

"Of course," he answered, "the water won't run out, for there isn't any gravity to make it."

He lifted the lid off the cooler and filled the pitcher by scooping up the water. Then he floated back to Rhoda with the remark,

"I'll show you an experiment which no one has ever seen before."

Holding the pitcher upside down, he lifted it quickly away from the water inside, which remained suspended in the air as a pulsating, transparent mass of irregular form. Gradually the mass ceased its pulsations and, as it did so, collected itself into a perfect sphere resembling a crystal ball.

"See what surface-tension will do!" he exclaimed admiringly. "Did you ever see a soap-bubble as beautiful as that?"

"How extraordinary!" murmured Rhoda. "Anyhow, it's just what I wanted." And, leaning forward, she applied her lips to the floating sphere and sucked in a deep draft of the icy fluid.

"The latest thing in hygienic drinking-fountains," she remarked, as she settled herself back in her armchair. "I really don't need this chair for repose, but without it I feel like a picture without a frame," she added.

"This is crazy-house, all right!" nodded Atterbury. "Gee, but we've got to be awful careful or we'll break every bone in our bodies!"

"If we can only manage to sit still for an hour," answered Bennie, "we shall have our tractor running again. Just now, I feel like a toy balloon!"

At this point, Burke elevated his legs and gave himself a shove with his hands.

"So long!" he remarked, as he shot forward, and, floating horizontally through the door of the control-room, disappeared.

"Easy way to go to work!" chuckled Atterbury. "Lie on your back and kick yourself down-town. Watch *me*!"

He lifted himself with his forearms until he was poised like an athlete above a pair of parallel bars. Then, extending his arms in front of him, he gave a jerk with his legs and swam through the doorway after Burke. Rhoda and Bennie looked at each other in amusement.

"Have you thought what is going to happen when we begin to get within the sphere of Medusa's attraction?" she inquired.

"You mean that, since that is the direction of our flight, gravitation will lift us *up* instead of *down*?"

"Exactly. We shall have to walk on the ceiling with our heads toward the floor."

"That won't be very convenient, will it?" he replied. "You know, I never thought of that at all. All our fixtures will be in just the wrong places. This table, for instance, will be way down below us and upside down at that. No—I mean it will be upside down above us on the ceiling. No—what *do* I mean?"

"I don't know," she retorted. "If we are right side up, it will be upside down, but if we are wrong side up, it will be right side down, for if the up side becomes the down side then the wrong side will be the right side, and the up side and the down side—"

"Stop—stop— For heaven's sake, stop!" shrieked Bennie. "You're talking nonsense, anyway. We're going to turn the Ring over before we slow down."

It is problematical in what result the complexities of the situation would have involved them had not Bennie suddenly noticed that the spot of sunlight upon the ceiling had shifted slightly to one side. Calling Rhoda's attention to this unexpected phenomenon, they returned to the deadlight, to find that the sun was no longer below them but considerably to one side, and, shielding their eyes with their hands, they were able to observe, where the vast black circle had been beneath the car, a shining crescent, light-bluish white in color and fifteen or twenty times the diameter of the moon. Neither Rhoda nor Bennie could repress a gasp of awe as they saw, for the first time, the enormous silvery arch of the earth pinned, as it were, against the utter blackness of space, with all its seas and continents plotted like a map.

"The crescent earth!" she breathed, in wonder.

"The crescent earth!" echoed Bennie. "How marvelous—like the new moon! I suppose we should call it 'the *new* earth.' See, there is the whole Atlantic coast line from Cape Horn to Hudson Bay—Florida and the Gulf of Mexico, Greenland and the Arctic ice-cap! Look at the cloud-banks over the Atlantic Ocean and along the west coast of South America. Quick—get your camera and put in a telephoto lens!"

The camera was still hanging by its strap from Rhoda's shoulder, and it took but a moment to exchange the lenses. Then she threw a puzzled glance at her comrade.

"How shall I do it? I don't understand," she hesitated.

"You will have to take the picture through the deadlight," he answered.

"But how long an exposure shall I make?" she inquired.

"Oh—a tenth of a second," he suggested, "or a fifth, perhaps."

Rhoda was having a hard time to preserve her equilibrium and handle the camera.

"Oh dear," she complained; "I can't keep still. This weighing nothing is very awkward—you slip around so."

With Bennie's assistance, however, she managed to hold the lens firmly against the deadlight.

"Push it down hard and squeeze the bulb," he directed.

While Rhoda was engaged in making different exposures, Bennie floated up to the observation-stage to ascertain their direction. To his astonishment, he discovered that Medusa was no longer in the field.

"There's something wrong!" he shouted to Burke. "We're way off our course!"

"What's happened?" yelled Atterbury, shooting, in his favorite posture, feet foremost, out of the condenser-room. "We're running all cock-eyed! Look where the sun is—the earth!"

"They ought to be nearly in line," replied Burke, in a confused way. "There's some new influence at work here."

"But I've lost Medusa entirely!" Hooker called down to them. "I can't imagine what's up. Of course, we left the earth with its

axial and orbital velocities as well as our own. I thought I'd worked it out all right, but I must have overlooked something. Anyhow, the first thing to do is to get back on our course. Atterbury, start up your engines half-speed; I'll call to you when I want your whole force. Burke, you must slant the tractor over and turn the Ring until we are pointing toward Medusa. I don't know just how she'll act, but I think we can tip her almost any way we please. When we're pointed in the right direction, we'll straighten out the tractor and give her full-speed ahead. Are you ready?"

Atterbury darted back toward the condenser-room, and almost immediately the hum of the dynamo began again. With its resumption, their weight returned, but hardly enough to enable them to walk in comfort.

"Ah," exclaimed Burke, "It sure feels good to be on foot again! I was getting darn tired of this spook business."

Under Hooker's directions, he moved the control-lever until Medusa swam again into the field of the telescope. Then, as the green star neared the center of the lens, Bennie ordered him to straighten the course and directed Atterbury to turn on full-speed. The noise of the machinery increased, and with it came a further increase in their weight. The whole force of the tractor was again pressing them on toward their distant goal. Bennie once more descended from the observation-cage and took his place beside Rhoda at the deadlight on the floor of the car.

Hypnotized by the wonder and beauty of the crescent earth beneath them, they hardly noticed that it was gradually shifting its place. Suddenly, it slipped entirely out of sight.

"Hang it!" shouted Bennie, in despair. "We've lost control of the Ring!"

Where, before, the earth had been, there now appeared the stupendous disk of the full moon.

At the same moment, Burke uttered an exclamation of fear.

"We're all out of kilter!" he cried. "I was looking down through the observation-window at the earth, and—all of a sudden it wasn't there!"

"The Ring is evidently slowly turning over," stammered Bennie. "If our tractor were not running, it wouldn't matter, but our direction must now be changing from moment to moment. We may have been captured or pulled out of our course by the moon! It's pretty near us, and you know how Jupiter changes the orbits of the comets that pass near it."

At that moment, Atterbury appeared in the doorway.

"Shall I keep the engines running?" he asked. "Our uranium is getting low, I'm afraid. The gage indicates that over seventy per cent has been used."

"Troubles never come singly!" exclaimed the master of the Ring. "Here we are, going we don't know where, gravitating around the moon, perhaps, and our fuel giving out! We've got to get a fresh cylinder into the tractor to get back, and it will be bad business making the change in space. We ought to land and make re-

pairs and get a fresh start with new bearings."

"Land?" gasped Rhoda, in astonishment. "Where?"

"On the moon, of course. It's only ten thousand miles away, and we're headed straight for her, apparently. Turn her over again, Burke, and we'll slow down. It's going to be ticklish business, but I don't see what else we can do. We may go to smash and we may not. It all depends on whether we have time to overcome our velocity before we get there. We could slue off and run by, of course, but our uranium might give out, and then what should we do? Anyhow, there's no time to be lost."

Yet, accustomed as Rhoda now was to supernormal situations and surroundings, Bennie's practical suggestion of landing on the moon, which, after all, was the one celestial body with which they were at all familiar, seemed utterly inconceivable of execution.

"The moon!" she repeated vaguely. "The moon!"

She had seen the moon off and on with the greatest regularity for nearly thirty years—had photographed it, drawn pictures of it, made calculations about it, and read all sorts of fanciful yarns concerning it and its imaginary inhabitants. She really knew a good deal about it and could call some of its mountains and dried-up seas by name—Copernicus, for instance, and Tycho—but she had never taken it seriously—had regarded it rather as a sort of stage-setting for the earth. Thus, when Bennie proposed, almost casually, to set foot on what had hitherto been nothing more than an abstraction or figure of speech, it left her uncomprehending. She had always associated the moon with harvest-fields, straw-rides, weddings, and green cheese. There was a "man in the moon," a "lady in the moon" and "two children carrying a pail" up there—in it. That was the moon of her childhood and when she was "off duty"—the real moon. The other one—the imaginary moon, far less real in every respect—was the one she knew in her work—a dead world of pitted craters, dry oceans, marked with strange, shining furrows and concentric circles, just so many thousand miles from the earth and having regular habits that could be absolutely relied upon. That was not the real moon at all. The genuine moon, as far as she was concerned, was the old-fashioned one—that cast its yellow light over pumpkin-sprinkled fields and down leafy lanes, or rose like a huge red lantern out of a sparkling blue-black ocean. The real moon signified coon-hunting, fried chicken, banjos, and "Merrily We Roll Along." The imaginary moon meant the "Mappa Selenographica," by Beer and Madler.

"The moon!" she murmured again.

"Yes," remarked Bennie curtly; "the moon—that moon right up there"—he glanced up and wrinkled his forehead—"that *ought* to be there, I mean! Say, there's something queer about all this! Hard alee, Burke! Steer for the moon!"

The aviator pressed his control-lever, and once more the moon floated overhead into their field of vision. But what a moon! Twenty four times her usual diameter—her circular craters plainly visible to the naked eye, her physical configuration seemingly becom-

ing more and more distinct each moment.

"But can we land?" protested the girl, reawakening to the perils of their position. "Suppose we can find no suitable spot—particularly with our machinery out of control? There will be no landing stage——"

"We must land!" he interrupted fiercely. "What's more, we've got to turn the Ring upside down so as to land right side up. It's going to be ticklish business, because we must bring our machine to rest within a hundred miles or so of the lunar surface, and we're traveling more than ten miles a second at the present moment."

"But *how* can you turn the Ring upside down away out here in space?" she expostulated.

"By slanting the tractor at its maximum angle," he answered. "Since there is little gravitational force acting on us now, the Ring will then rotate around its center of inertia and bring the moon below us. We can then straighten out the tractor and use its full force to slow down our velocity. As soon as we get within striking-distance of the moon, we will reduce our power and come down by gravitational force."

"Have you ever—tried this—turning-maneuver?" she asked hesitatingly.

"No; we never have. But we ought to be able to do it—we must do it! Atterbury, throw on your full power; and get ready, Burke, to put her over! Hang on to the ropes, Rhoda, or you may get dizzy! As soon as the tractor starts, we'll get back our weight and have a firm footing again."

Rhoda took one last look at the moon blazing out of the darkness of the sky overhead, grasped two of the clothes-lines, and closed her eyes. Again the Ring vibrated to the whir of its propelling engines. Burke threw over the control-lever as far as it would go; the helium ray slanted off until it almost grazed the inner surface of the Ring, and slowly the great machine turned over in space. Bennie, with his face glued to the deadlight in the floor, watched the moon glide gradually into his field of view, and when it was directly beneath them, he shouted to Burke to straighten the tractor. Again the ray swung into the center of the Ring, and they felt the pressure of the floor against their feet.

Crowded about the deadlight, the passengers watched intently the enormous yellow globe beneath them steadily increasing in diameter. In twenty minutes, it filled half their field of vision; ten more, and its rim was lost to them. They were settling down upon the moon!

Directly below lay the huge circular crater of Copernicus, frosty in the sun's light, brilliant streaks radiating from its cone. Inside the circumference of the extinct volcano, and parallel to it, was a smaller crater, at the bottom of which glowed several dazzling points, which Rhoda knew must be other cones. To the south stretched away vast grayish-yellow, lava-strewn plains. Elsewhere, over the visible surface of the moon, were distributed continents of highly irregular formation, with strangely indented coast-

lines, rivaling in their conformation those of Norway and Sweden. Concentric circles of great mountains marked both the northern and southern hemispheres, most of them craters of extinct volcanoes, and each glowing with its own individual color or radiation. Here rose a sparkling white point of light, Mount Eratosthenes; there, Mount Gay-Lussac; beyond, Mount Philolaus, and, to the south, Doerfel, Leibnitz, and that most splendid of lunar glories, Tycho, plainly visible in its dazzling beauty to the naked eyes of the inhabitants of the earth.

The predominating color both of these craters and of the dead seas, or plains, surrounding them seemed to be gray mixed with green or brown, but, here and there, certain of them shone with a bluish tint, while others glowed with a well-defined red or green. The great crater of Copernicus steadily increased in size until Bennie estimated that they were less than two thousand miles above it. The lunar surface was still coming up toward them at an appalling velocity, and Bennie began to have misgivings about their ability to stop in time.

"If we can't stop her, we're done for," he said. "We ought to have reversed sooner. I thought we were going to run *by* the moon, but we were evidently pointed directly toward it."

"You forgot the moon's orbital motion, I think," put in Rhoda. "It got in our way, that's all."

"It's too late to do anything now," said Bennie. "We're too near to swerve off and run by." He looked at his watch. "If the tractor is delivering its full power and runs for five minutes more, we ought to be all right, but it's going to be a narrow squeak."

He hurried to the engine-room.

"Atterbury, give her more power!" he shouted.

The engineer threw a frightened glance at him.

"I'm at the last notch now. Look at the tractor! The inductor-tubes are white-hot!"

With a feeling of utter helplessness, Bennie returned to Rhoda, who was lying on the floor with her face pressed against the glass, and threw himself at her side; and she clung to him, like a terrified child, as together they looked down fearfully through the deadlight. The yellow surface of the moon, gleaming like a mass of jewels, was rushing up at them with sickening velocity. A few seconds more, and— He turned away from the window.

"It's all up," he choked. "Good-by, Burke!"

Burke, standing rigid at the control, made no reply.

"We're slowing up; we're slowing up," whispered Rhoda suddenly. "Look, Bennie! That crater below us! It's not getting any larger!"

Bennie arose and framed the great circle of the crater in the rim of the dead-light.

"You're right!" he yelled exultantly. "We're hovering! We can land! Burke, shut down the power quick, and stand by to pick up your moorings!"

"I'm all ready," answered Burke, throwing over the rheostat

that controlled the current.

The Ring was hanging over a vast rocky plain, pockmarked with small craters, furrowed with crevasses, and bristling with jagged ridges and grotesque turrets and pinnacles. In the glare of the sun, it shone dazzlingly white—like snow—so that it hurt their eyes, and Rhoda was forced to turn hers away.

"How high up are we?" inquired Bennie.

"The manometer doesn't register," answered Burke. "There can't be any atmosphere. We won't be able to use it for landing—more's the pity! Just have to judge by appearances. I think we're hovering now—no—by George, we're *rising* a little!" He advanced the lever of the rheostat another point. "Now we're descending. This is about right, I reckon."

Slowly the Ring dropped toward the surface of the plain. Immediately below them was a small forest of pinnacles.

"For heaven's sake, keep away from that!" shouted Bennie. "If you land there, you'll spike the Ring on one of those things, just as if you were playing ringtoss. There's a good place—that round, level spot about three hundred yards to the left."

"Trust me for a bull's-eye!" laughed Burke, slanting the tractor, and the ground slid slowly off to one side until they were clear of danger and over the smooth patch, which looked as if it had been made to order for their purposes.

Up—up—nearer and nearer—came the lunar plain. The helium ray was now playing directly upon its surface, and throwing up great clouds of white dust, which, as the Ring sank closer to the ground, rose and completely enveloped it. Sight was no longer possible. They could not be more than two hundred feet above the surface. Beneath and above them, they could see only whirling clouds of white powder.

"Here goes for luck!" announced Burke, pulling back the lever.

They grasped the ropes tightly, standing on tiptoe for what seemed ages. Suddenly, the Ring struck with a noise like that of a giant sledge-hammer upon a boiler. The accompanying jar, however, was comparatively slight. Burke touched his forelock.

"We have arrove!" he remarked, with a grin. "All out for the moon!"

PART IV ON THE MOON

I

"We have arrove! All out for the moon!" repeated Burke, the would-be humorist. "Get ready for the quarantine officer!"

They all looked at one another incredulously. Save for the jar and the thunder of the blow when the Ring struck the moon's surface, there was nothing to suggest or indicate that they were not still moving through space, except the minor facts that the



port-holes were curtained by a sitting cloud of white dust and that the deadlight was totally obscured. There was no motion now, but there had been no motion before. Their journey had been very much like that entertaining side-show at Coney Island, where the passengers on an imitation ship gain a vivid impression of *ma de mer* by sitting perfectly still while the shore, sea, and sky revolve topsyturvy about them. Yet, to quote the never-failing Burke, there they were!

But were they *there*? Wasn't it all a mad sort of dream? Too much liquid air or something? Had they really ever moved an inch? Weren't they still just roosting on the staging in the aerodrome at Washington, and stirring up a big dust with their old propeller? Rhoda was actually convinced, for the moment, that they had never started at all, and her illusion might have persisted had not Bennie called her attention to the fact that the dust cloud had suddenly subsided, dropping like a stone, owing to the complete absence of any supporting atmosphere, and leaving the sky clear and dark as on a winter's night.

Through the now transparent window, the surface of the moon, blazing under the blinding rays of the sun, became instantly visible, like a desert at high noon. But what a desert! The Ring was lying in the center of a small, circular plain, rimmed by a coruscated rocky wall—a "craterlet" such as Rhoda and Bennie had studied through the great telescope at Georgetown. For some distance about the Ring's circumference, the soft, porous rock composing the surface had been deeply eroded by the blast from the tractor and grooves and furrows of large size radiated from the point where they had come to rest. Far from being level, the plain around the crater bristled with pinnacles and peaks of every size and shape, suggesting stalagmites on the floor of a cave—strange and grotesque creations of the erosion of prehistoric winds.

Here and there, curious mounds and hillocks, presenting weird profiles, gave the place the appearance of being a gathering-spot or "council-rock" for selenite creatures turned by some unearthly spell to stone; while everywhere lay, in tumultuous confusion, huge slabs and blocks with ridges, walls, and hummocks, suggesting to Rhoda's fanciful imagination vast lunar building-operations suddenly interrupted by a cataclysm of nature. At a distance of something over three hundred yards, an isolated pinnacle rose to a great height, one side dazzling in the sun's untempered light, the other shrouded in absolute darkness. Everywhere the plain was strewn with loose and scattered rocks and covered with a soft, white detritus.

It was a ghostly spectacle—this lunar crust—like a crowded cemetery in white moonlight, thrusting ghastly fingers toward the sky, populous yet silent. Rhoda shivered. Had men lived there, she wondered? Had strange beasts ever roamed and wallowed among the selenite undergrowth where now these stark forms raised themselves? Had the sweet air of life ever eddied among

these deathly rocks? Had birds once sung there, and insects buzzed and crawled? Would they, perhaps, find the imprint of some giant foot impressed upon the motionless dust? Her meditations were unceremoniously interrupted by Burke.

"We've no time to lose," he announced briskly. "That uranium cylinder in the tractor must be nearly exhausted. It had never been operated before at its maximum power, and we overestimated its life—a serious error. There is an automatic signal that shows you when ninety per cent. of it is gone. See? Only *two* per cent. left! I didn't like the idea of going outside to replace it, though, while we were driving through space. Hope our liquid-air suits will work. We'll be in a beastly fix if they won't. We ought to have tested them in a vacuum, but there were too many things to do."

He crossed the chart-room, and, unlocking a cupboard at the farther end, dragged forth the three suits of vacuum armor. They were of simple design, made of heavy rubber cloth and surmounted by copper helmets resembling those worn by divers. Each wearer carried a cylindrical tank, supported upon the shoulders, for his supply of liquid air.

"The first thing," continued Burke, "is to load up our knapsacks."

Bennie and Atterbury assisted him in unclamping the cover of one of the large retainers that supplied the Ring with fresh air. In appearance, it was not unlike a gigantic milk-can, and caused Burke to remark,

"I pity anyone who tried to steal *that* milk!"

Atterbury produced a metal ladle from the closet, while Bennie unfastened the tops of the cylinders, and Rhoda held her breath as she peered into the big retainer as the engineer thrust the ladle into its mysterious contents, which gave out dense clouds of white smoke.

"Hot stuff!" he grinned. "Look out!"

"Hot nothing!" replied Bennie. "It's over three hundred degrees below Fahrenheit!"

Bennie held the cylinder for Atterbury, while the latter attempted to pour it in through a funnel, but, in spite of all his care, some of the liquid fell upon the floor with a hiss like that of water dropping upon a red-hot stove.

"What makes it smoke like that?" asked Rhoda. "Of course, I know it isn't *hot*!"

"Condensed moisture," explained Bennie. "We never could have made this trip without it!"

With the greatest caution, they finally succeeded in filling all the cylinders, and Burke and Atterbury started to don their vacuum armor. Bennie was about to do the same, when he noticed an expression of disappointment on Rhoda's face.

"You go!" he said. "I've got to fix up something inside. Go out along with the others and look around. I'll take my turn when you come back. You won't want to stay long, I guess!"

"Oh, thanks!" she cried. "I *do* want to see what the moon is like!"

The men had by this time got into their strange costumes, but Rhoda found the arrangement of her skirts more or less complicated and was forced to retire to the galley, where she finally adjusted her attire to lunar requirements. Then, all four of them rolled the huge cylinder of uranium into the air-lock, and Atterbury closed and fastened the inner air-tight door behind them. They stood crowded together for a moment in that confined space, like divers in a divingbell, unable to speak to each other, and fully mindful of the fact that they were about to essay an experiment in physics never before attempted or even conceived of—the entry of a human being into a perfect vacuum.

Atterbury made a gesture of inquiry, and the others nodded their helmets. He raised one hand in warning and placed the other upon a valve in the outer door and pressed it quickly down. With a shriek, the air in the lock rushed through the valve into space, and their suits swelled perceptibly from the pressure of the contained air, as if pulled outward from their bodies by some invisible force. They stood motionless for several minutes to accustom themselves to their strange environment, making futile grimaces at one another through the glass of their helmets. Then Rhoda was startled by a curious fluttering or palpitation just above the top of her head—a sort of metallic twitter like that which might be expected to emanate from a mechanical bird—and she turned a startled face toward Burke, who only grinned in response and pointed to the escape-valve upon his own helmet. Then she remembered that he had previously explained to her how the vitiated air inside the helmets must needs escape in order to give place to the new fresh air liberated by the supply-tanks. But, in spite of her knowledge that this fluttering was due simply to a necessary device, she never heard it without a momentary tremor of fear—a sudden conviction that her soul was unexpectedly starting upon the Great Adventure.

The air-lock having emptied itself of its contents, Atterbury now released and opened the outer door and lowered a small metal landing-stage, from which hung the steel ladder. Then, with some difficulty, owing to the clumsiness of their new garments, the two men climbed down upon the rufa-like surface of the moon, while Rhoda remained watching them curiously from above. Apart from the puffing-out of the rubber suit, she experienced no new sensations, for she breathed with perfect ease, and the sunlight, falling full upon her body, warmed her through and-through.

Down below, Atterbury and Burke at first amused themselves by experimenting with the force of lunar gravitation, so much less than that of the earth, and jumped hither and yon—distances of fifteen and twenty feet at a single bound, like mountain-goats leaping from crag to crag. Once having accustomed themselves to their surroundings and their loss of gravity, they climbed up the great tripod and commenced to rig the block and tackle with

which they planned to hoist the fresh uranium cylinder to the top of the skeleton tripod and replace their now exhausted supply of fuel.

It was clear to Rhoda that this process could conceivably, and in fact probably, have been performed while the Ring was in flight, but she shuddered at the thought of her two friends climbing about on the outside of their machine while in transit at a velocity of twenty miles per second, however imperceptible that velocity might have been. Suppose one of them had fallen? Like the shadow of a lost soul, he would have followed the Ring in its journey among the stars—since, moving at the same speed as the machine through space at the moment of his fall, there would have been nothing to alter his relation to it, and, like a satellite—a true satellite, indeed—he would have flown along beside, or after it, until the tractor was started again and he had been left behind alone in the abyss of space! But here they could quite safely conduct their operations—in fact, as easily as safely—for the uranium cylinder now weighed but one-sixth of what it had weighed upon the earth, and the block and tackle could be handled without difficulty.

Leaving the men thus engaged, Rhoda descended the ladder and started off on a walk, feeling her way gingerly along until she could accommodate her muscles to her reduced weight. All about her lay what might have been the ruins of a Selenite civilization metamorphosed by the magic of erosion. Giant monoliths, like pillars, lay tumbled here and there in suggestive juxtaposition with giant blocks of porous stone which might have served as bases for such pillars, as the steps of a lunar temple, or even as an altar to some unknown god.

The great solitary pinnacle which she had noticed through the chart-room window especially excited her curiosity, and, as it seemed but a short distance away, she first photographed it and then decided to study it at closer range—to determine the cause of such a stalagmite formation under the open sky. The possibility of having any trouble in finding her way back to the Ring did not occur to her, since every object in the moonscape was defined with a truly unearthly brilliancy, snow-white on the light side and almost jet-black upon the other.

Out of the inky curtain of the sky, the sun glared through a circular rent, like a beam through a hole in the roof of some dark garret. Where it fell, everything was dazzling bright, but in the shadow was the darkness of the Styx. It was like walking across a lava field by full moonlight. Thus, it seemed easy enough to mark the high lights of the vicinity and to find one's way around.

Clearing from four to eight feet at a stride, Rhoda quickly crossed the plain to where the pinnacle stood like a lofty minaret, found that it could be easily climbed by a gently sloping ridge, and, without apparent exertion, gained the top and sat down on the very crest. Below her lay the Ring, its windows gleaming yellow in the startlingly white light, inclining slightly

on its side in almost the center of the plain. Having photographed it, she turned her eyes in the other direction. Everywhere, as far as she could see, the lunar surface was spotted with craterlets, large and small, surrounded by circular ridges of jagged rock, and bristled with spires and pinnacles. It reminded her vividly of the white, dried shell of a sea-urchin with a few lingering bristles still adhering to it, such as are found so plentifully on the seashore. To what, owing to the sun's position, ought to be the north, her view was cut off by a towering range, beyond which she could glimpse the white peak of a high mountain—Copernicus, probably—and believing this range to be not more than a few miles away, she resolved to utilize the time while the men were at work in trying to get a photograph of the moon's most superb natural feature.

II

The reader may recall that, at the moment of the departure of the Ring upon the preceding evening from the aerodrome at Georgetown, Bentham T. Tassifer had ensconced himself on the roof of the limousine containing his wife and the professional members of their party, and that, the Ring having vanished upward into the air, Mrs. Tassifer suddenly recalled the absence of her niece Rhoda, and, thrusting her head out of the window, had anxiously inquired of the world in general and of Bentham in particular what could have become of her.

"How should I know?" snapped back her husband, whose attention had thus, much against his will, been directed back to earth again. "How should I know? She went back to that machine, and I suppose she can't get through the crowd."

"Well, I wish I knew!" retorted his wife. "Some people don't have the slightest sense of responsibility."

"Bah!" said Bentham to himself. Somehow, he felt infinitely superior to his better half, roosting thus safely over her head, and fully protected, not only by the distance separating them but by the fact that the presence of the distinguished scientific gentlemen inside would naturally have a restraining influence upon her tongue. "Bah—snorty old woman!" he repeated, and felt in his pocket for a cigar.

It was at this moment that the crowd suddenly gave expression to its pent-up feelings in a roar of wonder and excitement. For several minutes, twenty-odd thousand people had held their breaths in amazement, as if fearful lest, should one of them speak, that flying squirt of light would stop and fall—the magic spell broken! But now that it was out of sight—vanished into the dark-blue zenith—and had not dropped back, they vented their astonishment and admiration in a mighty yell heard for miles. And then every man turned to his neighbor to assure him that he had believed in Professor Hooker and his Flying Ring right along, and that you could stake your bottom dollar on everything coming

out all right. On every hand could be heard such fractional expressions of self-laudation as:

"I tole my wife only las' night—I says—"

"Sure you kin bet on him every time! I allus sed he had Teckla and Thomas A. Edison beat a mile."

"What'd I tell yer, old top? Was I right now, or wasn't I—eh?" etc., etc.

Tassifer, having no companion upon the roof beside him, was compelled to content himself with a *sotto-voce* reiteration of his earlier remarks of "By Gosh!" "Gee whiz!" and "Hookey!" Well, the little feller had made good!

Bentham began to feel, somehow, as if he had had considerable to do with the expedition—stood, in a sort of way, *in loco parentis*. He remembered how he had been the first person to sight the Ring on the golf-grounds of Chevy Chase and had protested about its landing there. Also, he was the uncle—by marriage—of Miss Gibbs, who had assisted in the necessary calculations in planning for the flight. He had actually been in the Ring itself and bade its crew good-by only a few moments ago. Why, he was one of the very few! He might even—if he had been willing—to be persuaded—have gone along.

Thus, arrogating to himself even more than his usual importance, Tassifer viewed the crowd surging about the car with supreme complacency. They were all making for the road now, as the throng makes for the exits at a big football game, and the field was much less congested than at the moment of the start of the machine. In fact, the chauffeur began to indulge in preparatory noises around the front of the car. There were practically no people left between the motor and the barbed-wire entanglement in which the entrance to the field was located. And yet there was no sign of Rhoda!

He scratched his nose thoughtfully. She couldn't possibly have got out of the enclosure without seeing the car—it would have been a physical impossibility. Then, where had she disappeared? Inside the aerodrome, a half-dozen guards and workmen were piling up the collapsed timbers of the staging. But he couldn't see a skirt anywhere. He wondered if she could have been struck or injured by the falling debris? No; her body would, in that event, be quite visible. He grew more and more puzzled. She was either inside or outside the enclosure, he reasoned closely—and she wasn't inside. She couldn't have got outside without seeing him or being seen.

"I'm really worried about her," came Mrs. Tassifer's voice plaintively from within the vehicle.

And then Bentham suddenly slapped his leg and uttered a whoop of surprise, consternation, and baffled rage. With his right fist raised in imprecation toward the Milky Way, the assistant solicitor of the Department of Justice descended with astonishing agility to the ground and thrust his head into the open window of the car.

"She's done it!" he yelled retributively.

"Done what?" demanded Mrs. Tassifer.

"Gone along with 'em! Up there!" He pointed vaguely in the direction taken by the Ring.

"Oh," protested his wife, in a shocked tone, "she hasn't! She *wouldn't* have! Why, it wouldn't be proper—she, an unmarried woman, alone with three strange men! I'd never be able to look any of my friends in the face again. You must be mistaken, Bentham."

"Well, she has, all right!" he replied vindictively. "That's just exactly what she's done. I always said she wasn't all there—rooms to let—bats in her belfry—balmy on the crumpet. And now she's proved it! I'm glad she isn't *my* niece! All right, driver; you may start along."

III

Two hundred and forty thousand miles away, Rhoda, descending to the lunar plain, strode rapidly in the direction of the ridge behind which the summit had now disappeared, and, in the course of about twenty minutes, found herself at the foot of a wall of impassable rock which curved unexpectedly and fell away into a vast basin. Turning to retrace her path, she discovered that the peak which she had climbed was no longer visible and that she had lost all sense of direction. To the north, to be sure, her passage was barred, but there was nothing to indicate whether the Ring lay in any one of three directions. Puzzled by the disappearance of the peak, she sprang blindly across the plain, running back on what she fancied was the right course. But the Ring was nowhere to be seen! It had vanished absolutely. And then she recalled the fact that Bennie had told her that the supply of liquid air carried in the cylinders of their vacuum armor would last not much over an hour. Her wrist-watch told her that she had been wandering forty-five minutes. She had only fifteen minutes more in which to find and return to the Ring—a bare quarter of an hour in which she could support life in this hostile environment. A horrible, suffocating death awaited her—was clamped about her head!

The sweat started out upon her forehead. Above her head, the escape-valve fluttered feebly, she imagined. What a death! Such a death as Poe might have conceived! Already, she believed that she had some difficulty in breathing. The sunlight seemed dimmer, somehow. Were her ears singing? No; it was only the recurrence of the escape-valve's twitter. She groaned, and the reverberation echoed in the helmet like the roar of a lunar beast.

Sick with terror, she turned and scrambled on hands and knees up the rocky sides of the crater until she stood upon the summit of the ridge. There was no sign of the Ring anywhere—only the scarred, spiked plain, with its white sepulchers of rock. Tears of

self-pity burned in her eyes; but she could not wipe them away, and they drained down her cheeks and lips into her mouth. They would be looking for her—waiting for her! What agonies would her lover not be suffering, searching that dead, empty plain with his field-glasses for the shadow of the moving thing which means so much to him!

She found herself panting, and tried to control her bosom in the belief that, by so doing, she could economize the breath of life. Fifty minutes had now been consumed since she had left the Ring. Perhaps it was only a short distance away—just there, or there—its beckoning tripod hidden from her feverish gaze by the moon's curvature. Only ten minutes left of life! How should she spend them? In vain rushes for escape, like a dying bull? That would be fruitless. Better to remain where her friends might perchance see her through their glasses. The valve chirruped almost inaudibly. Only a few minutes more—eight—seven! She must signal, wave something—her handkerchief! Mechanically she felt for her pocket! Only the hard surface of the vacuum armor. She stood upon the block of burnt porphyritic rock and waved her arms wildly. These leprous cliffs, these whitened ridges were like a charnel-house of white bones—her graveyard! The pinnacles were waving back at her. She was dying! Was she already dead, perhaps? Had her soul escaped through the valve, and was it now hovering over that grotesquely clad thing that had been she? The woman who died on the moon! The lady in the moon! Where had the lady come from? In a flying machine.

The valve gave a last flutter, and her vision clouded—brightened—glowed—until it almost blinded her. With a stifled cry, she found herself on her feet, staring at a dazzling trail of fire shooting into the black background of the sky. The Ring! It rose like a rocket just in front of her—its sides gleaming like molten metal toward and into the zenith—hesitated, hovered for a moment above her head, and dropped swiftly downward toward her. Hardly conscious of the action, she thrust the camera toward it and pressed the bulb—obtaining the only photograph showing the Ring in actual flight.

She had no recollection of taking the picture, and sometimes she is almost induced to believe that it was the result of some unearthly agency—a Selenite "control"—sending through her a natural demonstration and message to the inhabitants of the earth of conditions on the moon with proof, otherwise unobtainable, that the Ring had been there. For who shall say in what form the ultimate evolution of man shall appear? And is it not at least conceivable that the superman or supermind may dwell, a pure spirit, upon the moon—that there hovers among those colossal ruins of what was once a planet teeming with life a soul?

The camera dropped from her outstretched hands, and Rhoda staggered toward where the Ring would land. Slowly it descended to the ground—settling like a fiery bird to its nest—a lunar roc in Sinbad's Valley of Bones—reducing the velocity of its fall by

means of the counter-force of the ray which, driving down upon the porous plain, threw up great clouds and geysers of lava dust. These hurled high in air, dropped almost immediately again to the surface—a dead weight in a vacuum. But there was no sound—no wind. It might, for the absence of physical phenomena, have been an optical delusion. Yet, as Rhoda staggered, half fainting, toward that cloud of tumultuous matter, she knew that there alone could she support life, receive into her lungs once more that essential of all human existence—oxygen.

Would she arrive in time? Already, there was a dreadful pressure upon her lungs, and she breathed, like an exhausted animal, in multitudinous little gasps. Fierce pains shot through her head, and there was a strange ringing in her ears and a contraction of the muscles in her throat. The frozen carbonic acid in the dregs of the liquid air was beginning to evaporated. The lunar landscape swam before her eyes like the rush of a moonlit river—then suddenly faded. She had entered the dust cloud raised by the Ring as it reached the surface. She reeled—the yellow detritus enveloping her like a sandstorm. She was like a fish swimming through a stratum of muddy water. Suddenly, the sabulous drift sank at her feet, and she found herself lying prone beside the Ring, with the steel ladder dangling from the landing-stage and an armored figure preparing to descend. She waved her arms feebly and shouted, and the figure waved in response to her gesture. A moment more, and Burke had leaped down beside her and placed his helmet against hers.

"Put your arms around my neck quick!" came vibrating through the telephonic metal and glass. "Where have you been?"

She heard, but could not answer. Burke put his arm around her and lifted her from the ground. How light she was! It gave him a shock. Could it be that a human being was inside, or was he holding the empty shell of the armor? Then, suddenly he felt her hand clutch his arm, and, remembering the diminished gravity on the moon, scrambled up the ladder with her clinging to his shoulders. It was not a moment too soon. For, as they closed the outer door of the air-lock, everything turned black and she lost consciousness. She came to, a few seconds later, as Bennie, having unscrewed her helmet, yanked it from her shoulders and dragged her inside the chart-room—pale, but still alive.

"I watched you from the top of the tripod," explained Atterbury, as she handed back to him the whiskey-glass which she had emptied. "Saw you climb upon that peak. No harm in that! But then you disappeared, and I began to get nervous. So, as soon as we had finished our repairs, we decided to follow you. Lucky we did!"

"You were just in time. Another five minutes would have been too late," she answered weakly. "But I had a great trip."

"You see," added Bennie, "we were afraid you might run out of air and get lost, so we thought if we made a short flight in the same general direction we should be nearer in case of accidents,

and the Ring would guide you back to us. Anyhow, our tractor is running strong again, and we're all ready to start for Medusa—as soon as we have had our breakfast."

"Or dinner," corrected Burke.

"Or supper," added Atterbury.

Rhoda smiled faintly.

"Will someone please tell me what time it is up here?" she asked plaintively.

Bennie shrugged his shoulders.

"The days and nights on the moon are each three hundred and fifty-four hours long—almost fifteen of our terrestrial days."

"My!" whistled Atterbury. "What do you suppose a day's pay amounts to? I'd hate to be a labor-leader on the moon working for shorter hours!"

"Yes—trying to get a two-hundred-and-ninety-nine-hour day!" added Burke.

"I suppose the Selenites had lunch at half after one hundred and seventy-seven," commented Rhoda, carrying on the joke.

"That would be midday," assented Bennie. "But probably they had tea along about two hundred and forty-five and a late supper around three hundred and nineteen."

"Makes me hungry to think of it!" said Rhoda. "What's the matter with tea now? I'm ravenous!"

She looked at her wrist-watch.

"Heavens—it's nearly nine hours since we left Washington!"

"And we've only come about two hundred and fifty thousand miles!" groaned Burke.

"And with Medusa scorching toward the earth at ninety miles a second, we ought to get busy!" ejaculated Bennie.

"But we surely can wait long enough for a cup of tea," urged Rhoda. "Please, Mr. Atterbury, do hustle out the tea-things!"

While the kettle was getting ready to boil, Rhoda and Bennie stood by the window and took a last look at the surface of the moon. But no longer did she regard its tumbled monoliths, its spires, crests, and craters either with interest or pleasure. On the contrary, her hand sought Bennie's, and she shuddered as she gazed across that barren plain where no human thing of itself could live.

"Thank God!" she murmured. "I should have hated to die out there, in that vast cemetery—that Valley of Death."

He pressed her hand—now so warm, yet so cold only a few minutes before.

"Yes," he answered. "Yet, isn't it beautiful, with its blazing lights and black-velvet shadows? We shall never see anything like it again—unless we make another trip to the moon."

"The sun doesn't seem to move at all," she hazarded.

"It's because the days are so long," he replied. "The sun's motion would be hardly perceptible on the earth if our days were ten times longer than they are."

"But what nights!" she ejaculated.

"No longer—not so long as those near the terrestrial poles," continued Bennie. "The earth stays always in the same spot in the sky, just where we see it now as a huge crescent near the sun. As the sun sinks toward the horizon, the earth waxes like the moon seen from the earth, reaching its half-stage at sunset. Then, through the long lunar night it grows, until, at seven of our days after sundown, it becomes full. Then it wanes again, reaching the half at sunrise a week later. If we had landed on the other side of the moon, the earth would have remained invisible. If there were people living on the other side, they would never see the earth—their moon—at all—"

"Unless they came over to this side for an excursion," interpolated Rhoda.

"The earth would be worth their seeing, all right!" chuckled Burke. "And think of the wonderful lunar light! I wish we could stay until sunset and see the moon by earth-light."

"Tea is served!" called Atterbury, and they all gathered hungrily around the chart-table.

"I bet we're the first folks that ever had tea on the moon," remarked Burke.

"That's your one best bet!" retorted Atterbury. "Or ham sandwiches, either!"

PART V THE ATTACK ON THE ASTEROID

I

"It's time we were off," announced Bennie presently, glancing at his watch. "We've been here over two hours, and Medusa is coming on fast."

Rhoda went to the glass port-hole and looked out.

"By the way, where is she now?" she asked.

"Below us," answered Bennie. "We're on the earth-side of the moon. The asteroid is away off in space on the other side."

"Then we shall see the other side of the moon," exclaimed Rhoda, "the side we never see from the earth!"

"Not much of it, I'm afraid," said Bennie. "It's nearly full-moon now, and the other side will be in darkness. Start up the dynamo, Atterbury, and run slow at first. We've got to rise from the surface without a starting-stage, and there may be trouble."

Burke took his place at the control-lever, and presently the Ring pulsated again with the throb of the machinery. A dense cloud of dust arose around them, and loosened fragments of rock beat a thunderous tattoo against the under surface of the machine. The din and uproar increased second by second, the giant ray, as it bored down upon the moon's surface, making a sort of hole, into which the Ring, at first, seemed inclined to settle. Then the glare grew brighter, and the machine suddenly lifted itself out of the turmoil into full sunlight again. Once more they were pressed

heavily toward the floor, and knew that the full acceleration of the tractor had been developed. They were off—off into space again, bound for the tilting sward of the celestial tournament, ready for the fiery joust, with their burning lance at rest!

Below them, the surface of the moon shone like a desolate ruin in the midst of a sandy desert. Rhoda could see the entire plain which had been the scene of her adventure, and her heart beat strangely as she picked out the pinnacle and the ridge where she had given herself up for lost. Thirty or forty miles to the north, Copernicus raised its glistening cone. Again the hollows of its surrounding craters, the crevasses, the valleys glowed with weird, phosphorescent colors—reddish, sapphire, and green.

The moon began to lose its metallic hardness and to gain a mellow luster that was almost friendly. Each moment, new beauties revealed themselves—vast concentric mountain chains gleaming like jewels; strange gulfs, dried-up seas, former islands, and archipelagoes; odd, luminous streaks or furrows, shining as if with snow; patches of grayish yellow, like autumn forests; great peaks, twenty-thousand feet in height, their circumferences geometrically perfect, concentric circles with a dazzling world of soft, ineffable beauty—our moon! And how swiftly it was dropping away!

"We're high enough up now, I think," said Bennie. "Navigate her around to the other side, where we can get our bearings."

Burke slanted the tractor gradually, while Bennie watched the surface below them with a field-glass. This maneuver had to be executed with some care, for the atmospheric valve, which controlled the angle of the helium blast and insured the horizontal flight of the Ring at a fixed elevation over the surface of the earth, could not be used over the moon, devoid as it was of atmosphere. Everything had to be controlled by hand, as in the case of the first aeroplanes.

"Better keep her rising a little all the time," directed Bennie, watching a crater intently. "We can't judge our elevation when we get over the dark part, and it would be bad if we had to descend without knowing what it was. That's about right. Hold her there! Now give her a touch more of the vertical force. There! The crater is getting a little smaller."

The glowing surface of the moon was now sliding rapidly along below them as they circled around it. Over the Mare Tranquillitatis they passed, its gray lava-beds glistening in the sunlight like black glass or obsidian. So rapid was the play of light on its uneven crust that the surface itself seemed in motion—like water rippling in the moonlight. Then came a rough region of jumbled rocks, and beyond, in the distance, the great, gray basin of the Mare Crisium opened before them.

They were now nearing the line along the lunar surface at which the sun was setting, as they could tell from the long shadows of the volcanic cones beneath them, and presently there appeared on the distant horizon a wall of blackness, where the il-

luminated surface ended abruptly on the inky background of the sky. Nearer and nearer came the dark curtain, studded along the edge with countless brilliant spots and points of light.

"The terminator!" cried Rhoda. "Just see the light of the setting sun on the tops of those mountain peaks! Did you ever see anything so beautiful?"

The vast, luminous plain below slowly drew away and shrank into a great crescent of light which, with the sun blazing close to its edge, ran half-way around the distant horizon. They were now over the dark side of the moon—the side that is turned always from the earth, the side which no human eye had ever gazed upon before. The room was flooded with sunlight, which came in through the side deadlight.

"Bother it all!" cried Bennie. "One can't see anything in this glare." He pressed his face against the glass in the floor and shielded his eyes with his hands. "One might be able to see something of the surface by starlight."

"Wait a minute!" said Rhoda. "I'll get a black cloth to throw over your head."

But, even as she spoke, a change came. The light faded away as when a thunder-cloud crosses the sun, and in a second or two they were in complete darkness. Burke groped about for the switch that turned on the lights.

"What's happened?" gasped Rhoda. "Are we falling?" And she reached out in the dark and clutched Bennie's hand. "Has anything gone wrong?"

"No," he reassured her; "we've merely entered the moon's shadow—that's all. Give her some more lift, Burke. We mustn't take any chance of dropping back. Don't turn on the light. We're all right, and I want to have a look at the moon."

Again they felt the upward push of the floor and knew that they were rising. Bennie, flat on his face, gazed into the blackness beneath them. Nothing was visible, however, and he pres-called for the lights.

"Now for our bearings," he remarked, climbing to his perch under the telescope. Looking up through the window above, he saw the greenish globe of the asteroid nearly overhead. "Hello," he commented, as he focused his telescope; "it's been coming on fast while we were camping on the moon! All the surface markings are perfectly visible through the glass. And every minute they're growing more distinct."

"What does it look like?" asked Rhoda.

"Looks more like an English walnut than anything else," he mumbled. "There's a funny big spot—perfectly smooth—right in the center of the disk, and hundreds of queer ridges and furrows running from it in every direction."

Rhoda bade farewell to the moon and, throwing herself on her back on a wicker lounge, gazed up through the window overhead, watching the asteroid grow steadily larger. In something over an hour it had nearly doubled in size—a venomous-looking creature

glowing with a sulphurous luminosity that filled her with a certain vague apprehension. The crescent earth was now close to the fast-subsiding horizon of the moon, and hung a silvery target for the projectile, which, if not interrupted in its flight, would inevitably annihilate it. Her pulses stirred at the realization that they could avert—if all went well—this catastrophe. Theirs was surely the greatest "still hunt" ever undertaken—if they only could bag their celestial game—bring down their quarry, like a quail!

"It's time to get ready," announced Bennie, from the observation-stage. "Burke, stand by to turn over!"

"Aye! Aye!" replied Burke, his fingers on the lever.

"Start the dynamo, Atterbury!" ordered the master of the Ring.

Outside, the glare of the helium ray once more poured down through the center of the machine.

"Hard alee!" called Bennie.

Burke threw over the control-lever, and the great car slowly inverted itself. Then the engines stopped, and silence reigned again. Bennie joined Rhoda at the deadlight. Medusa was now about the size of the full moon as seen from the earth, while the real moon had shrunk away until it was apparently about the size of the earth itself. Through the windows they could see sun, moon, and earth, all at once, surrounded by millions of constellated stars against a background of darkness. Beneath them hung Medusa—the sidereal battleship which they hoped to torpedo—not more than twelve hundred miles away!

"At what range are you going to fire?" asked Rhoda. "I suppose the longer you wait and the nearer we get, the greater will be the effect of the ray?"

"On the contrary," he replied. "The distance from which the ray is discharged is immaterial, so long as the rays are concentrated upon the object to be destroyed."

"How far are we away from Medusa now?" she asked.

"Judging by the observed diameter of the asteroid, I should say about a thousand miles. Of course, the nearer we are the better target Medusa will make, but we shall have to attack at a sufficiently great distance to avoid danger from the radioactive discharge from its surface which the ray will produce."

"Particularly as Medusa is a 'uranium planet,' " she agreed. "Of course, I don't suppose you quite know what will happen when the ray strikes?"

"No," he answered; "everything depends on the nature of the material. If it is a pure ore of uranium, there will be no explosion but only a radioactive discharge from the surface, which will drive the asteroid out of its present path. If there are other materials present, things will fly. Medusa is about one hundred and fifty miles in diameter. It is scarcely conceivable that our ray could actually break it up. But I'm not going to take any chances. Medusa may be within range now. I think we had better try her at this distance."

Through their glasses, they could easily see that on one side

the surface of the asteroid was pitted with holes and craters similar to those upon the moon, while the other, which had been subjected to the fierce erosion of the dense gases of the comet, was worn almost smooth and plowed into furrows. The Ring was now moving on a course parallel to that of Medusa, which floated apparently motionless in space at a distance which Bennie estimated to be less than five hundred miles. Both, drawn by the combined attraction of the sun and earth, were in reality rushing on toward the latter. The three men were busy with their preparations for the projection of the great ray, and Rhoda drew herself over to the side deadlight, through which streamed the pale-yellow beams from the runaway planet. Now that they were running alongside, but one-half of the illuminated hemisphere was visible, and Medusa appeared like the moon at the half-phase, but fifty times as big.

Monstrous and sinister it looked to her, and she shuddered involuntarily as she thought of its distant target, peopled with millions of helpless human beings, doomed to be wiped out of existence in a blinding flash of fire. Could they do aught to prevent it—four insects in a flying pellet of metal, aspiring to stop a runaway world? Had not perhaps the thing been put in motion by some Supreme Intelligence which controlled the universe, and might not the destruction of the world be a part of the Great Plan, a cog in the great wheel of destiny? If so, what could they hope to do to alter the plan? And then she thought of the taming of the thunderbolt by the lightning-rod, and drew a long breath and clenched her hands. Man had, from the beginning, devised ways and means of averting impending disasters due to the forces of nature. The present case differed in no respect from the others except in magnitude. The evolution of defense against nature had been steady and progressive, from the stone age, when prehistoric man sought shelter in caves from the pelting hailstones, to the present one in which they were about to whip out of its course a planet that was running wild through the solar system.

There in front of her, just outside the deadlight through which she was gazing, and silhouetted against the shining disk of the asteroid, was that terrible weapon, the generator of the disintegrating ray. In a few minutes, it would be hurling its mysterious beam across the void of space. She would be present, and would see what happened. Already, the Ring was reverberating with the noise of the machinery for generating the electric current that fed the coils of the inductor. Both dynamos were running at full-speed, and the scream of the radio-turbines filled the air. Through the din, she heard Bennie's voice—"Clear for action!" Burke brushed past her and took his post at the switchboard beside the deadlight, from which the motors that swung the inductor on its trunnions were operated. She clutched the rail in front of her, with her eyes fixed on the black cylinder of metal that hung, pivoted on its skeleton supporting-frame, not five yards from her face. Womanlike, she wanted to put her fingers in her ears, but

she was afraid to let go of the rail.

"All ready!" called Bennie. "Get your aim, Burke!"

Burke immediately closed the switch that started the elevating motor, and slowly the huge cylinder turned on its trunnions like a siege-mortar. In the control-room, Atterbury stood at the great copper switch, the closing of which would throw the full force of the current into the coils and liberate the ray.

The moment had at last arrived for the electrocution of Medusa—the crucial moment of their journey! In spite of their seeming nonchalance, there was not one of the four but felt his pulses quicken at the realization that on the result of the movement of Atterbury's right hand depended the continuance of human life upon the earth. They looked at one another mutely. Then Bennie smiled a curious, hesitating smile, and turned from the window through which he was watching the asteroid.

"'You may fire when ready, Gridley!'" he shouted.

Framed in the doorway of the control-room, Rhoda saw Atterbury throw over the switch, and heard the hum of the alternating current in the coils of the inductor.

For a minute—two minutes—nothing happened; then the outer shell of the inductor turned a dull red, glowed brighter, and rose to white heat. They observed no ray; yet even then the ray was traveling out into the abyss of space. They had seen but the "smoke of the discharge." A sudden flash of light burst like a bomb a little to one side of the asteroid.

"Low and to the left!" yelled Bennie. "But we caught a meteorite! It passed through the ray and exploded."

"Gives me the direction," nodded Burke. "R-3."

He pressed a small button, closed a second switch, and the cylinder outside swung slowly on its vertical axis. Almost instantly, a misty splash of yellow fire appeared upon the dark side of the asteroid and shot off into space.

"Hit!" cried Bennie. "Hold it, Burke; hold it! Rhoda, don't miss that!"

Gradually, the luminous discharge from Medusa increased in brilliancy until the planet became a ball of fire. Giant sheets of yellow light, like aurora streamers, drove off from its surface as the deadly ray bored against it until the asteroid resembled a vast volcanic eruption. Under the fierce blast from the Ring, its surface was melting away, and driving out into space a glowing mass of incandescent gas. Burning thus, out in the blackness of space, it resembled a conflagration—the burning-up of a powder factory—seen at a safe distance through the night.

A safe distance? Unexpectedly, out of the darkness, a shower of moving points of light appeared in the ether, around the asteroid, darting hither and yon, growing larger momentarily as, shining in the light of the sun, they traced luminous lines across the sky. Medusa was returning the attack! The explosions upon the planet's surface were hurling great fragments of rock and stone in every direction, filling space with flaming missiles, contact with

the smallest of which meant death to the daring voyagers in the Ring. Several of these molten fragments hurtled by the windows, blazing fiercely but making no sound, while some, encountering others in their flight, exploded silently, like distant rockets breaking in the zenith.

Everywhere the heavens were a mass of shooting-stars of every conceivable color—green, purple, blue, orange, yellow, red, and lilac—a kaleidoscopic display of surpassing beauty, of fearful wonderment. It was as if some demigod had emptied a furnace into the heavens, scattering its glowing contents throughout the sky, or as if a million bombs at pointblank range were bursting on every side and discharging showers of fireworks about the Ring. But already Medusa had commenced her retreat, already her disk appeared smaller, and to prolong the bombardment meant only unnecessary danger to the occupants of the car.

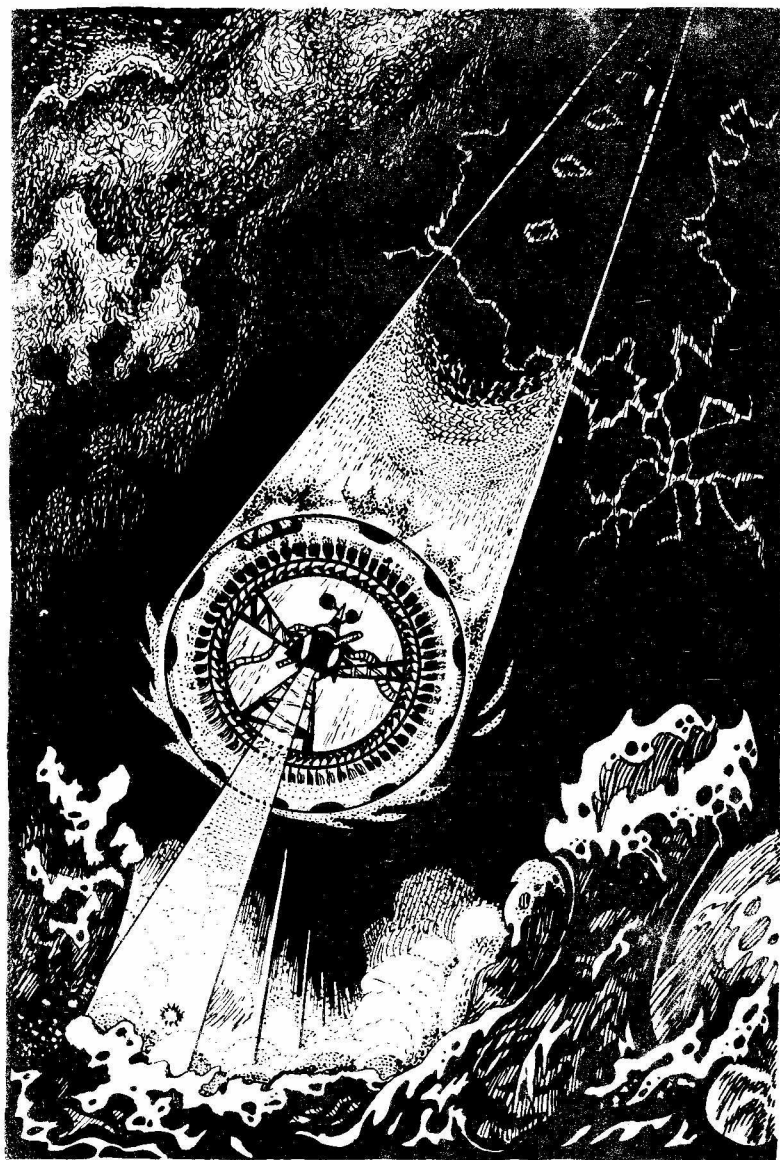
"I guess we've given her 'what for,' " commented Burke. "She's running away from us. Shall we let up?"

Bennie signaled to Atterbury to throw off the current, and the conflagration on the asteroid ceased as suddenly as it had started. The volcanic bombs continued to fly by them at occasional intervals, but presently the last one passed, and they breathed freely again. They had escaped. Their work was done. The earth was saved. They could return.

II

"They could return." How easy to say the words—as easy as it had been to fly off by means of their radioactive power from the surface of the earth! But, now that the necessity of returning whence they had come presented itself, they suddenly realized difficulties which had hitherto not suggested themselves. While they had paralleled the course of Medusa, they had been headed straight for the earth, which hung in the sky above them, a gigantic crescent of a dazzling bluish white, its oceans and continents barely discernible through the haze of its atmosphere.

Even as they watched it, they could observe its rotation as one can detect the movement of the minute-hand of a clock. The moon had presented no such problem. It was dead, almost without axial motion. But the earth was very much alive, whirling on its axis with a speed at the equator of a thousand miles an hour—nearly that of a shell from a rifled cannon. How could they land upon it? Theirs seemed to be the superhuman task of the clown who tries to climb upon the revolving table at the circus—an impossibility. When they had left the earth, they had assimilated this axial motion, and, in steering their course through the ether, they had allowed for it, as the navigator allows for the tide or the set of the current. But now, on their arrival at the globe's surrounding atmosphere, they would be attempting to land upon a ball revolving with a velocity of ten or fifteen times that of the fastest express-train.



"We could land at either of the poles," suggested the research professor. "Of course there wouldn't be any motion *there!*"

"Yes; we might do that," agreed Bennie; "or" — and he scratched his head—"we can navigate the Ring toward the earth in a spiral orbit. Anyhow, the Ring has got to follow the earth in her orbit around the sun."

"There's something funny about it," interrupted Burke. "Suppose you started at the poles and drove the Ring toward the equator, how would you keep up with the increasing surface-velocity of the earth?"

"Why," answered the master of the Ring, "it's the—the—let me see—it must be the atmosphere that would drive you eastward all the time."

"Of course!" exclaimed Rhoda. "What a lot of sillies we are! It's perfectly simple. You don't need any spiral orbits or anything else. All you've got to do is to bring the Ring down into the upper atmosphere and hover at a fixed elevation until we are swept along at the full speed of the earth."

Burke, who was lighting his pipe, paused and pursed his lips.

"Wouldn't we be coming down into a terrific wind?" he inquired. "Fourteen hundred feet a second! My word! Some blow!"

"Depends on the latitude, of course," answered Bennie. "We've got to run around the earth as we descend, or else we'll be on the dark side—that is, the *night* side—when we land. Believe me, I want light for that!"

"Quite right!" agreed Atterbury, who had joined the group. "Just look at the earth now, will you?"

They all craned their necks to follow his gesture. Through the observation-window, the shining crescent of the globe seemed to fill the whole sky. Burke pressed the control-lever, and they swung leftward, boring through space toward the invisible black wall where the earth's shadow reached out among the stars. Nearer and nearer it drew, then—darkness. Steering by the steady gleam of the friendly planets, as a coasting steamer steers by the distant bead of light that marks the headland, the Ring soared on, bursting at length into full sunlight again.

They were now comparatively close above the earth and, in going around it, had gained the incidental advantage of having acquired the velocity of the planet in its journey around the sun. Only the problem of descent remained. But it was the most serious of all their problems—how to lower themselves in safety into that swirling, boiling mass of vapor that was shooting by so fast as to seem little more than a hideous blur, and left them sick and dizzy at the sight of it.

And now, as they sank lower, the blur disintegrated into flying banks of cloud, shot through and through with flashing lights and darting shadows. Poised there, as they were, in space, it was a terrifying thing to watch this fearful rush of the earth's surface from west to east. Could they ever manage to break safely into the circumambient atmosphere and go whirling along with

it? How—how, without having their delicate machine wrenched and torn in pieces?

"We must break our descent with the tractor, come down gradually," said Bennie, "and trust to luck."

Burke inverted the Ring, and they gathered about the dead-light, the cloud-banks sweeping by below them with a thousand times the velocity with which a toy globe can be spun by a playful child. Nearer and nearer rose the clouds toward them. A faint, humming sound filled the car—the wind! They had entered the earth's outer atmosphere. The hum rose gradually to a whine and then to a roar. The car shook, and the steel covering thundered. The noise increased to the crash of a hurricane, and they could scarcely hear one another's voices. Cautiously they descended, increasing the lift of the tractor when the movement of the clouds seemed too fast, and slacking off a bit when their speed held constant, until the Ring, gradually acquiring the velocity of the gale, was carried swiftly along by the atmosphere, and the cloud banks below them began to move more slowly and at length not at all. They had pierced the envelope of the earth and were once more in the life-giving element of the air.

Slowly, they dropped through the masses of cumulo-cirrus which, suddenly opening beneath them, revealed the rollers of a sunlit ocean. The breaking crests seemed perilously near after limitless distances of the firmament through which they had been voyaging, and they gave the Ring more lift and rose to a safer distance above the waves. Far to the west, close to the horizon, they could see a distant mountain peak, and for it they steered their craft.

They were flying now with a speed a hundred times greater than that of the swiftest gull, the ray churning the sea into a boiling vortex that followed them like a white foam-monster, spurting great geysers of froth and steam fifty feet into the air. The mountain reared its head higher and higher, and soon the shore of a green island, sprinkled with white houses, rose toward them.

"Fayal!" shouted Atterbury, from the control-room. "I've been there!"

"Bear away and look out for boats!" directed Bennie, and they took a wide sweep and left the islands far to the south. Ahead of them, Rhoda saw a small black dot from which arose a dark smudge.

"That must be one of the Cunard steamers!" she cried. "Oh, *do* let's go down where we can watch the people! I should so like to see a human being again!"

Burke laughed, and the Ring dipped like a swallow and skimmed along only half a mile above the surface of the Atlantic. Soon the liner was just in front of them, and they veered to avoid striking her with the ray. Her decks swarmed black with people, and, through the glasses, sailors could be seen working at the life-boats.

"I wonder what they think we are!" exclaimed Rhoda, looking for Burke, who had left his post.

"He's going to wireless them not to be afraid. They're precious near a panic down there," explained Bennie.

By the time the aviator reappeared, the steamer was four or five miles behind them.

"That's the Saxonia," he told them. "Captain says they recognized us, and only got the boats ready for fear the ray might make trouble. What course, Professor? Shall we run across to Florida and up the coast, or follow the lanes to Nova Scotia and work down?"

"The shortest," urged Rhoda, and Burke laid their course by compass and called Atterbury to the lever while they snatched some breakfast, for the sunlight and sight of the sea combined to make them all ravenously hungry.

They had lifted to a height of about three miles. The white crests of the rollers had melted into the vast expanse of blue, and only the smoke patches showed where steamers lay everywhere about them.

"How crowded the ocean is!" remarked the girl. Picking their way with care, lest the ray should do some unintentional damage, they continued westward until a dark line on the horizon suddenly appeared and began to creep toward them. Then they swung to the south to avoid the Bay of Fundy and found themselves, owing to the rapid falling-away of the coast-line, out in the bosom of the vast Atlantic again. Once more turning west, they came down to less than a mile and soon picked up a barrier of sand-dunes edged by a white rim of surf. There were ships everywhere about them—the coastwise trade of the New England seaboard.

"This won't do!" declared Burke. "If we don't get over land, we'll be bound to do damage."

They slanted and soared shoreward. A lighthouse broke the line of dunes and beach, rising out of a group of small white buildings and surrounded by the wire enclosure of a chicken-yard.

A woman in a calico bonnet was feeding the chickens, and, at sight of the Ring, to the ecstasy of the fowls, she dropped the contents of her apron and rushed to the door of the lighthouse. In a moment, a man in his shirt-sleeves and smoking a com-cob pipe appeared on the upper parapet. He looked at the Ring lazily, and then waved his hand. They lifted again, following the shore-line, and flew over a dreary waste of scrub-oak, cranberry-bog, and sandy beaches until they saw a light-ship tugging at her chains a mile offshore. Then the coast turned, and they recognized Martha's Vineyard and, farther off, Nantucket. Once they had got their bearings, they rose higher and flew at an elevation of several miles over Nantucket Sound, Gardiner's Bay, and Long Island to Westchester, and thence over the Hudson to Jersey City, whence they followed the line of the railway toward Philadelphia.

They were all in the highest spirits and, as Burke noted,

there had not been a single case of sickness on the voyage. The brown fields and green woodlands crept slowly along below them. The air was sweet. There was still an hour to sunset. Overhead, the sky was a soft, impenetrable blue. The world was full of light. Tiny trains hurried along like little harmless snakes. Lilliputian men, horses, cows, and dogs crawled about the fields and roads.

"Isn't it nice?" whispered Rhoda, seeking Bennie's hand.

"You bet it is!" he answered heartily.

"Lots better than the stars!" she murmured.

He pressed her fingers.

"I didn't let on," he confessed; "but I was scared to death."

"And so was I," she acknowledged. "I never want to leave the earth again!"

They stood there silent for several minutes.

"But it *is* jolly!" she said unexpectedly, in a tiny voice.

"You know—I *might* take just a *little* trip again—if you asked me!"

They passed high over Philadelphia and Baltimore and, just as the sun sank blazing among the tumbled cloud castles in the west, caught sight of the Washington Monument—a flashing spire—and then the Capitol, its dome burning golden in the afterglow. The silver Potomac wound toward the city, as it rose toward them. The avenues and boulevards gleamed amid the soft verdure of trees and shrubbery.

And, as they settled earthward, from a parade-ground came faintly upward the call of a bugle—like a jewel in the dusk.

Rhoda waved her hand toward the smiling earth below.

"Do you remember 'Marpassa'?" she whispered.

And when he shook his head, she quoted from Stephen Phillips' masterpiece the wonderful declaration of Apollo in answer to the wish of his earth-love when she said,

... "Fain would I know
Yon heavenly wafting through
the heaven wide,
And the large view of the
subjected seas,
And famous cities, and the
various toil of men."

.....

"And I will carry thee above
the world,
To share my ecstasy of fling-
ing beams,
And scattering without in-
termission joy.
And thou shalt know the first
leap of the sea
Toward me; the grateful up-
ward look of earth,
Emerging roseate from her
bath of dew—
We two in heaven dancing.
Babylon
Shall flash and murmur, and
cry from under us.
And Nineveh catch fire, and

at our feet
 Be hurled with her inhabi-
 tants, and all
 Adoring Asia kindle and
 hugely bloom—
 We two in heaven running
 —continents
 Shall lighten, ocean unto
 ocean flash,
 And rapidly laugh till all this
 world is warm."

Bennie listened, as Rhoda spoke the lines, spellbound at the poet's imagination.

"By golly," he cried, in admiration, "that's more wonderful than—than actually *doing it!*"

III

Bentham T. Tassifer had paused, as usual, at the Metropolitan Club, on his way home from the Department of Justice, and, as a natural consequence, was exuding his regular post-meridian benignity. In his own little official occupation of the day—the joker in the contract for the new post-office at Pocalla, Texas—he had entirely forgotten the disappearance of his niece, as well as the anticipated collision between the wandering asteroid and the earth which he so honored by living upon it. He had followed his ordinary custom of going directly to the bar and consuming a sherry and bitters with an audible, guzzling satisfaction, something between the gurgles of a dying bathtub and the intake of a hippopotamus. Then his lordly little eye fell upon the lank form of his golfing friend Judson, of the Department of Agriculture, leaning in contemplation before a tumbler from which o'erlapped a sprig of mint.

"Lo!" he remarked, with an intonation signifying "'Behold, minion; King John, your king and England's, doth approach!'"

"Lo yuhself!" returned Judson. "Djuh see somethin' happened to that comet?"

"Eh?" demanded the solicitor. "Comet? You mean the asteroid, I suppose? What's happened to it?"

Judson took a sip from the tumbler and turned savagely upon Tassifer.

"Ass-eroid!" he shouted.

"Don't get excited, Judson," commented Bentham patronizingly.

"You make me tired!" retorted his agricultural friend. "What difference does it make *what* it is, if it's been put out of business?"

"What do you mean?" cried Bentham. "Has anything unusual occurred?"

"Haven't you seen the papers?" inquired Judson. "Hub! If you're so blamed slow, lemme—I mean, let me—read it to you."

"Sure!" nodded Bentham. "Another sherry and bitters—and

another mint julep," he added to the bartender, after a moment's reflection.

"Listen here," began Judson, elevating a newspaper which had been lying flat on the bar: "'Extry'! Collision between ass—ass—what d'you call it?"

Tassifer grabbed the paper quickly out of his hand.

"As-ter-oid," he articulated snappishly. "Let me see it. I can read."

He read:

EXTRA—Four O'Clock—EXTRA!

COLLISION BETWEEN ASTEROID AND EARTH AVERTED!

PROBABLE SUCCESS OF HOOKER EXPEDITION!

MEDUSA NOW OUR SATELLITE!

There is every reason to believe that Professor Benjamin Hooker and his daring companions have achieved their stupendous object of diverting the falling asteroid from its course toward the earth, and have thus saved the human race from destruction. Professor Thornton, of the National Observatory, announced the receipt, early this morning, of a cable-despatch from an amateur astronomer at Honolulu, stating that, about ten hours after the time set for the departure of the Hooker Expedition in the Flying Ring, he suddenly observed a yellow glow surrounding the asteroid Medusa. This glow increased in volume and intensity for perhaps five minutes, and then as suddenly ceased, drawing away from the planet like a puff of smoke. No trace of the phenomenon was observed either at the Lick Observatory or in the great one-hundred-inch telescope at Mount Wilson, near Pasadena, the unfavorable position of the asteroid, low down in the western sky, probably accounting for this. All other observatories of note were on the daylight side of the earth at the time.

Professor Thornton further announces, however, that the observations upon Medusa's position which were made last night at the various European observatories show conclusively that the path of the asteroid has been changed and its flight toward the sun checked. It is now moving in an elliptical orbit around the earth, with a period of approximately four months and twelve days. The astronomer states that, at the time of the asteroid's nearest approach to us, it will be a conspicuous object—its apparent diameter being nearly one-half that of the moon. Professor Hooker and his associates have thus not only averted the impending catastrophe but have presented the earth with a new moon as a lasting monument to the boldest enterprise ever conceived by the human brain.

There were several columns more, but Bentham did not proceed further.

"Gee whiz!" he exploded. "He's really done it!"

"Tush!" returned Judson. "You don't *believe* that, do you? No matter how big a fool you are, you don't honestly suppose anyone can go sailin' around in the air blowin' comets—I mean ass-eroids—out of their orbits, like Buffalo Bill shootin' glass balls?"

"Look here, Judson," shrieked Tassifer: "You keep a civil tongue in your head! I know all about that flying machine; I've been in it, and, what's more, my niece Rhoda—" He stopped unexpectedly.

"What about your niece?" inquired Judson.

"Nothing! Why, *you* saw the machine that day on the golf-course—don't you remember? That was Hooker."

"Sure, I saw it!" assented the agriculturalist. "But that thing could only fly round in the *air*! The most it could do would be to go up five or six miles. You see, when you go higher up than that, there ain't any more air—and you'd *die*! Besides, the

machine wouldn't *float* unless there was air—any more'n a ship without water. That's why all this is just bunk."

Tassifer glared disgustedly at Judson.

Really, the fellow was too insignificant—too big a nincompoop to bother with!

"Darn it, Judson," he said, with slow emphasis; "I don't want to quarrel with you, but what you don't know about flying machines would fill the Congressional Library. I've got to go home in a minute, but I've known you long enough not to want you to go around making an ass of yourself."

"Don' say!" sneered Judson.

"Now," continued Tassifer, "this flying machine hasn't anything to do with *air* at all. It goes up, air or no air. It goes up through the air and through the nothingness above the air, and it can go up easier without air than with air, because then there isn't any resistance."

"But what makes it go up?" inquired Judson.

"What makes a rocket go up?" retorted Tassifer.

"But it ain't a rocket!"

"I didn't say it was. It's *like* a rocket."

"But a rocket has *gunpowder*."

"Well, this has something or other—I forget what—to make it go—" concluded Tassifer lamely. "Anyhow—"

"Rats!" snorted Judson. "You know a lot about it—you do! You—"

They might have landed under the bar in the tightly locked embrace of those defending their honor had not an unusual clamor from the avenue interrupted them. What seemed like the confused shoutings of a mob came through the closed windows.

"What's that?" gasped Bentham.

They paused, intent. Evidently, something had happened—an accident, maybe. They could hear a subdued, distant roar, in which were mingled the tooting of motors, the clanging of bells, the bellowing of whistles, and the cries and yells of excited humanity. A multitude of black shadows rushed by. The bartender threw open the window. The avenue was filled with a hurrying crowd—all gazing skyward.

"Hooray!" yelled the crowd. "Hooray! Hooker's back! Hooray!"

Tassifer and Judson looked at one another mutely. Suddenly, the bartender leaped out the window and joined the mob. The whole city was in the streets.

"Come on, Judson!" cried Bentham. "If there's anything doing, let's be on the wagon!" And he climbed upon the sill and leaped after the bartender.

Judson hesitated, emptied his glass, and followed. Over in the west, across the park, a great cloud of smoke and dust was rising against the crimson sky.

"What's happened?" asked the now thoroughly sober Judson of a man who was hurrying by.

"Don't know," panted the other. "People say comet's struck us!"

"Comet Nothin'!" shouted a policeman. "It's Hooker's flying machine!"

Judson grabbed Tassifer by the arm, and they hastened cheerfully along with the crowd.

IV

At the moment her husband thus undignifiedly surrendered to mob psychology, Mrs. Bentham T. Tassifer was taking her Saturday-afternoon bath—thus leaving the tub free for Bentham before going to bed. She had closed the windows, which fact, coupled with the noise of her puffings and splashings, had prevented her from hearing the demonstration going on in the street below. She was just reaching for her towel when she heard the door-bell ring and hurried footsteps upon the stairs.

"Is that you, Bentham?" she shrilled.

"No; it's me—Rhoda!" came back the voice of her niece.

"Where on earth have you been?" cried her aunt. "You scared us almost to death!"

"Oh, flying around!" answered Rhoda. "I want my tooth-powder and nail-brush."

"What are you going to do now?" shouted Mrs. Tassifer, through the door.

"I'm going to get married," replied Rhoda. "Please hand me my things."

There were but two passengers to come down the gangplank when the Washington boat docked the next morning at Old Point Comfort. Trade had been, in fact, very light for several weeks, and the hotels had been practically closed owing to the defection of the colored help, who in a frenzy of religious fervor, had abandoned their jobs to prepare, by prayer and chanting, for the day of Judgment.

Carrying their grips, Bennie and Rhoda walked along the wooden pier and entered a hotel. A decrepit clerk assigned them rooms and handed Bennie a pen freshly dipped in ink. With his hand poised above the blank page of the register, our hero hesitated. They had come there to avoid the pestering crowds, the adulation, the publicity, the reporters. Should he sign as was befitting—"Professor and Mrs. Benjamin Hooker, Washington, D.C."? In that case, even that old dormouse of a hotel-clerk would recognize his identity and the hotel would swarm with interviewers. Yet—did he dare? He had only been married a few hours. He glanced apprehensively at Rhoda, who was examining some needlework in a showcase. Then he resolutely gripped the pen and scrawled, B. Hooker and wife, Camb. Mass.

All that day, the two star-voyagers wandered over the white beach, drinking in the odoriferous breath of the coming spring and

talking over their experiences of the past seventy-two hours.

And, in the evening, they sat on the sand and watched the sea darken and caught the first glint of the moon's edge as it pushed up over the horizon. They neither saw the throng of reporters who poured off the afternoon train nor suspected that they were the marked-down quarry of a pack of ravenous wolves.

In ignorance of what was in store for them, Bennie and Rhoda strolled further and further up the beach, away from the hotel. The moon came up round and full, smiling like an old and familiar friend. The breeze had died away, and the silver-edged waves lapped the soft sand gently at their feet as they threw themselves at full-length under some stray pines and gazed up through the branches at the blue arch with its thousands of twinkling lights.

"I like them so much better that way!" she murmured. "If they don't wink at you, it seems so unfriendly!"

"It *was* awful up there!" he assented.

The moon swam higher and higher, turning the beach into a white snow-drift, along which, save for that of the pines under which they lay, no shadow could be seen for miles. Toward this single possible hiding-place moved Diggs, a newspaper reporter from New York. The crunch of his steps made them sit up hurriedly.

"Sh! Somebody's coming!" he whispered.

They were motionless—two hunted creatures—scarcely breathing, in a black island surrounded by a deluge of moonlight.

But Diggs had spied them. Fifty feet away, he paused and lit a warning cigarette. Then he walked down to the water's edge, gazed pensively at the moon and remarked,

"I say, Professor Hooker?"

"It's no use," growled Bennie; "he's got us! Hello!" he answered.

The reporter coughed and came slowly toward the patch of shadow.

"Excuse me," he remarked briskly; "but you understand there's a whale of a story in all this, and it's up to me to get it? You can't blow up a meteor and knock the solar system topsy-turvy and get away without even being interviewed, you know. Sorry—but it isn't done. What do you suppose they would do to me? And then there's Mrs. Hooker, you see! If it hadn't been for Mrs. Tassifer—"

Rhoda suddenly spoke up.

"What has she said?" she demanded.

"Oh, she gave us the romance stuff," he answered. "Look here, now: It's ten o'clock, and I've got to 'phone this to New York in time for the early edition. Do you mind my asking just a few questions?"

"But I haven't anything to say," expostulated Professor Hooker.

"Just listen to the man!" groaned Diggs. "Let me ask you:

Is this story about landing on the moon perfectly straight?"

Rhoda pointed up through the trees to the great yellow circle of the lunar orb.

"Do you see that bright spot with the shadow on the left-hand side of it?"

"Sure," answered Diggs.

"Well," she continued, "I was standing right there less than thirty-six hours ago."

"Great stuff!" Diggs exclaimed. "But how could you prove it? What *evidence* have you got?"

"I've got plenty of photographs," she answered. "Dozens of them—of the moon, of the crescent earth—"

"Beg pardon! Of the—what?"

"The crescent earth," she explained, "at about the first quarter. I suppose the phrase seems a little strange."

"Oh—like the moon. I get you," he nodded. "But pictures might be faked."

"These weren't," she retorted wearily.

"Of course not," he agreed. "But they're open to attack."

"I suppose so," she conceded. "But it doesn't matter."

"Of course it matters!" he expostulated. "Now if you only, had something you *got* on the moon—brought away with you—that didn't exist on earth—"

"People would just say it *did*," put in Bennie. "Who cares? *We* don't!"

"Sure you don't!" he answered sympathetically. "But it means a heap to me. Don't you see what a scoop it would be for us to be the only paper to *prove* you'd been to the moon?"

Even as Diggs spoke, far out on the black, heaving horizon, a dull luminosity became suddenly apparent. Brighter it grew, and some stray wisps of cirrus cloud above smoldered in the sky.

"What's that over there?" asked the reporter. "It looks as if the moon were coming up—only it *is* up!"

He turned and gazed into the heavens, where the moon was rolling through the clouds like a great golden wheel.

Bennie was lighting his pipe, and Rhoda vouchsafed no reply.

Then, on the edge of the distant, watery world, a bead of fire rose and sent toward them a fluttering beam. An orange disk thrust itself above the waves—a brilliant, dazzling shield of gold marked with strange wrinkles like a corrugated orange.

"Good heavens, what's that?" exclaimed Diggs. "Am I seeing double?"

"No more—than anybody—else," retorted Bennie puffing. "That is our evidence—the proof you were asking for. That is Medusa—the earth's new satellite—the wandering asteroid that will wander hereafter around the earth."

"Two moons?" demanded Diggs.

"Yes, Mr. Diggs; you can telephone to New York that hereafter you have arranged for two moons—a big one for the grown-ups; a little one, half-size, for the children."

"And not such a bad little moon at that," added Bennie.

"Our honeymoon," whispered Rhoda. "Goodnight, Mr. Diggs."

THE END

