

# A JOURNEY IN OTHER WORLDS

By John Jacob Astor

This Is the Only Book Col. Astor Wrote. It Is Published Serially in The Evening World by Authority of the Trustees of the Astor Estate—"A Journey in Other Worlds" Is a Fantastic, Semi-Scientific Tale of Four Explorers' Startling Adventures Among the Planets.

(Copyright, 1904, by D. Appleton Co.)

## CHAPTER I. In the Year 2000.

IN the year 2000 A. B. several scientists resolved to take a trip through the planets.

Hitherto this had been impossible. But now a cleverly devised airship, the Callisto, driven by a new and wonderful force known as "apergy," made the aerial journey simple.

The four men who volunteered to explore the stars in the Callisto were Dr. Cortlandt, U. S. Government expert; Col. Bearwarden, President of the Terrestrial Axis Straightening Company; Deepwaters, Secretary of the Navy; and Richard Ayrault, a young capitalist who was a dabbler in science and was engaged to Sylvia Preston, a Vassar undergraduate.

The expedition was equipped with every possible appliance and necessity. Its members were armed with explosive rifles and the airship was provisioned for one hundred days.

At last the preparations were completed, and it was arranged that the Callisto should begin its journey at 11 o'clock A. M., Dec. 21, the northern hemisphere's shortest day.

Though six months' operations could hardly be expected to have produced much change in the inclination of the earth's axis, the autumn held on wonderfully, and December was pronounced very mild. Fully a million people were in and about Van Cortlandt Park hours before the time announced for the start, and those near looked inquiringly at the trim little airship that, having done well on the trial trip, rested on her longitudinal and transverse keels, to make sure of a full power supply.

The President and his Cabinet-including, of course, the shining lights of the State and Navy Departments—came from Washington. These, together with Mr. and Mrs. Preston and a number of people with passes, occupied seats arranged at the sides of the platform, while scientists and scientists assembled from every part of the world.

"There's a ship for you!" said Secretary Stillman to the Secretary of the Navy. "She'll not have to be dry-docked for barnacles, neither will the least breeze make the passengers sick."

"That's all you landlubbers think of," replied Deepwaters, "but you know as he is the king over in Europe said to me as he introduced me to the queen: 'You Secretary of State is a great man, but why does he always part his hair in the middle?'"

"So that it shall not turn his head," I replied.

"But with so gallant and handsome an officer as you to lean upon," he answered, "I should think he could look down on all the world." Whereupon I asked him what he'd take to drink.

"Your apology is accepted," replied Secretary Stillman.

Cortlandt also came from Washington, where, as chief of the Government's Expert Examiners Board, he had temporary quarters. Bearwarden sat next the terrestrial axis straightening company's flying machines, while Ayrault, to avoid the crowd, had come to the Callisto and was showing the interior arrangements to Sylvia, who had accompanied him.

She was somewhat agitated because at the last moment he had not absolutely insisted on carrying her off, or offered, if necessary, to displace his Presidential and doctor of law friends in order to make room.

"You will have an ideal trip," she said, looking over some astronomical star charts and photographic maps of Jupiter and Saturn that lay on the table with a pair of compasses, "and I hope you won't lose your way."

"I shall need no compass to find my way back," replied Ayrault. "If I ever succeed in leaving this planet, neither will star charts be necessary, for you will be a magnet stronger than any compass, and, compared with my star, all others are dim."

"You should write a book," said Sylvia, "and put some of those things in it." She was wearing a bunch of forget-me-nots and violets that she had cut from a small flower garden of potted plants Ayrault had sent her, which she had placed in her father's conservatory.

At this moment the small chime clock set in the Callisto's woodwork rang out quarter to eleven. As the sounds died away Sylvia became very pale, and began to regret in her womanly way that she had allowed her hero to attempt this experiment.

"Oh," she said, clinging to his arm, "it was very wrong of me to let you

Sylvia had waved her handkerchief with the utmost enthusiasm, in spite of the sadness at her heart. But she now had other use for it in trying to hide her tears. The Callisto was still going straight up, with a speed already as great as a cannon ball, and was almost out of sight. The multitude then began to disperse, and Sylvia returned to her home.

Let us now follow the Callisto. The earth and Jupiter not being exactly in opposition, as they would be if the sun, the earth and Jupiter were in line, with the earth between the two, the Callisto's journey was considerably more than 250,000,000 miles, the mean opposition distance. As they wished to start by daylight—i. e., from the side of the earth toward the sun—they could not steer immediately for Jupiter, but were obliged to go a few hundred miles in the direction of the sun, then change their course to something like a tangent to the earth, and get their final right direction in swinging near the moon, since they must be comparatively near some material object to bring apergy into play.

The maximum power being turned on, the projectile shot from the earth with tremendous and rapidly increasing speed by the shortest course—i. e., a straight line—so that for the present it was not necessary to steer. Until beyond the limits of the atmosphere they kept the greatest apergetic repulsion focused on the upper part of their cylinder, so that its point was first, and they encountered least possible resistance. Looking through the floor windows, therefore, the travellers had a most superb view.

The air being clear, the eastern border of North America and the Atlantic were outlined as on a map, the blue of the ocean and brownish color of the land, with white snow patches on the elevations, being very marked. The Hudson and the Sound appeared as clearly defined blue ribbons, and between and around the two they could see New York. They also saw the ocean dotted for miles with points in which they recognized the marine spiders and cruisers of the North Atlantic squadron, and the ships on the home station, which they saw were watching them through their glasses.

"I see," said Cortlandt, "that Deepwaters has been as good as his word and has his ships on the watch to rescue us in case we fall."

"Yes," replied Bearwarden, "he is the right sort. When he gave that promise I knew his men would be there."

They soon perceived that they had reached the void of space, for, though the sun blazed with a splendor they had never before seen, the firmament was intensely black, and the stars shone as at midnight. Here they began to change their course to a curve beginning with a spiral, by changing the Callisto apergetically, and directing the current toward the moon, to act as an aid to

the lunar attraction, while still allowing the earth to repel, and their motion gradually became the resultant of the two forces, the change from a straight line being so gradual, however, that for some minutes they scarcely perceived it.

## CHAPTER II. The Last of the Earth.

FINDING that they were rapidly swinging toward their proper course, that the earth in its journey about the sun would move out of their way, they divided their power between repelling the body they had left and increasing the attraction of the moon, and then set about getting their house in order.

Bearwarden, having the largest appetite, was elected cook, the others sagely dividing that labor so largely for himself would be no trial. Their small but business-like looking electric range was therefore soon in full blast, with Bearwarden in command. It had enough current to provide heat for cooking for four hundred hours, which was an ample margin, and it had this advantage, that no matter how much it was used, it could not exhaust the air as any other form of heat would.

The earth, which at first had filled nearly half their sky, was rapidly growing smaller. Being almost between themselves and the sun, it looked like a crescent moon; and when it was only about twenty times the size of the moon they calculated they must have come nearly two hundred thousand miles and be just ten hours since they had started, and at that moment 9 P. M. in New York; but, though it was night there, the Callisto was bathed in a flood of sunlight such as never shines on earth.

They closely watched the Callisto's course. At first it did not seem to deflect from a straight line, and they stood ready to turn on the apergetic force again when the car very slowly began to show the effect of the moon's near pull; but not till they had so far passed it that the dark side was toward them were they heading straight for Jupiter. Then they again turned on full power and got a send-off shove on the moon and earth combined, which increased their speed so rapidly that they felt they could soon shut off the current altogether and save their supply.

"We must be ready to watch the signals from the Arctic circle," said Bearwarden. "At midnight, if the calculations are finished, the result will be flashed by the searchlight. It was then ten minutes to 12, and the earth was already over four hundred thousand miles away. Focusing their glasses upon the region near the North Pole, which, being turned from the sun, was toward them and in darkness, they waited.



THE COMBAT WITH THE DRAGONS

"In this blaze of sunlight," said Cortlandt, "I am afraid we can see nothing."

Fortunately, at this moment the Callisto entered the moon's tapering shadow.

"This," said Ayrault, "is good luck. We could of course have gone into the shadow, but to change our course would have delayed us, and we might have lost part of the chance of increasing our speed."

"There will be no danger from meteors or sub-satellites here," said Bearwarden, "for anything revolving about the moon at this distance would be caught by the earth."

The sun had apparently set behind the moon, and they were eclipsed. The stars shone with the utmost splendor against the dead-black sky, and the earth appeared as a large crescent, still considerably larger than the satellite to which they were accustomed. Exactly at midnight a faint phosphorescent light, like that of a glow-worm, appeared in the region of Greenland on the planet they had left. It gradually increased its strength till it shone like a long white beam projected from a lighthouse, and in this they beheld the work of the greatest searchlight ever made by man, receiving for a few moments all the electricity generated by the available dynamo at Niagara and the Bay of Fundy, the steam engines and other sources of power in the Northern Hemisphere. The beam lasted with growing intensity for one minute; it then spilled out with clean-cut intervals, according to the Cable Code: "23 degrees 6 seconds. The Southern Hemisphere pumps are now raising and storing water at full blast. We have already begun to lower the Arctic Ocean."

"Victory!" shouted Bearwarden, in an ecstasy of delight. "Nearly half a degree in six months, with but one pole working. If we can add at this rate each time to the speed of straightening already acquired we can reverse our angles in five years, and in five more the earth will be at rest and right."

"Look!" said Ayrault, "they are sending something else. The flashes came in rapid succession, reaching far into space. With their glasses fixed upon

them, they made out these sentences: "Our telescopes, in whatever part of the earth was turned toward you, have followed you since you started, and did not lose sight of you till you entered the moon's shadow. On your present course you will be in darkness till 1215, when we shall see you again."

On receiving this last earthly message the travellers sprang to their searchlight and, using its full power, telegraphed back the following: "Many thanks to you for good news about earth, and to Secretary Deepwaters for lending us the navy. Result of work most glorious. Remember us to everybody. Shadow's edge approaching."

This was read by the men in the great observatories, who evidently telephoned to the Arctic Signal Light immediately. It flashed back: "Got your message perfectly. With you greatest luck. The T. A. S. Co. has docked the Callisto's petal with flowers and has ordered a tablet set up on the site to commemorate your celestial journey."

At that moment the shadow swept by, and they were in the full blaze of cloudless day. The change was so great that for a moment they were obliged to close their eyes. The polished sides of the Callisto shone so brightly that they knew they were easily seen. The power temporarily diverted in sending them the message then returned to the work of draining the Arctic Ocean, which, as the North Pole was not returning to the sun, was the thing to do, and the travellers resumed their study of the heavenly bodies.

## CHAPTER III. Space and Mars.

NEVER before had the travellers observed the stars and planets under such favorable conditions. No air or clouds intervened, and as the Callisto did not revolve on its axis there was no necessity for changing the direction of the glasses. After an hour of this interesting work, however, as it was already late at the longitude they had left on earth, and as they knew they had many days in space before them, they pre-

pared to go to bed. When ready, they had only to pull down the shades; for, as apergy was not applied to them, but only to the Callisto, they still looked upon the floor as down, and closed the heavy curtains to have night or darkness. They found that the side of the Callisto turned constantly toward the sun, was becoming very warm, the double toughened glass windows making it like a greenhouse; and they consoled themselves with the thought that the sun's power on them was hourly becoming less, and they felt sure the double walls and thick upholstery would protect them almost anywhere within the solar system from the intense cold of space.

The base and one side of the Callisto had constant sunshine, while the other side and the dome were in the blackest night. This dome, on account of its shape, sky windows and the completeness with which it could be isolated, was an ideal observatory, and there was selection during their waking hours for the rest of the journey when it was not occupied by one, two or all the observers.

"There is something marvelous," said Cortlandt, "about the condition of space. Its absolute cold is appalling, apparently because there is nothing to absorb heat; yet we find the case of this material projectile uncomfortably warm, though, should we expose a thermometer in the shade in front, we know it would show a temperature of three hundred to four hundred degrees below zero—were the instrument capable of recording it."

Artificial darkness having been obtained, the travellers were soon asleep. Bearwarden's dreams being regaled with thoughts of his company's triumph; Ayrault's, naturally, with visions of Sylvia; while Cortlandt frequently started up, thinking he had already made some great astronomical discovery.

About 3 A. M., according to seventy-fifth meridian time, the explorers awoke feeling greatly refreshed. The tank in which the liquid apergy was kept automatically gave off its gas so evenly that the air remained normal, while the lime contained in cups absorbed the carbon dioxide as fast as they exhaled. They had darkened those windows through which the sun was actually pouring, for, on account of the emptiness of the surrounding ether and consequent absence of diffusion of light, nothing but the tinky blackness of space and the bright stars looked in at the rest. On raising the shades they got an idea of their speed. A small crescent, smaller than the familiar moon, accompanied by one still tinier, was all that could be seen of the earth and its satellites.

"We must," said Bearwarden, "be moving at the rate of nearly a million miles an hour, from the way we have travelled."

"We must be doing fully a million," replied Cortlandt, "for by this time we are pretty well in motion, having got a tremendous start when so near the moon with it and the earth in line. The first thing that attracted their attention was the size and brilliance of Mars. Although this red planet was over forty million miles from the earth when they started, they estimated that it was less than thirty million miles from them now, or five millions nearer than it had ever been to them before. Toward evening they noticed through their glasses that several apparently island peaks in the Southern Hemisphere, which was turned toward them, became white, from which they concluded that a snowstorm was in progress. The south polar region was also markedly glaciated, though the ice-cap was not as extensive as either of those at the poles of the earth. "We must be on the lookout for the satellites," said Cortlandt; "a collision

with either would be worse than a wreck on a desert island." They therefore turned their glasses in the direction of the satellites. "We must be ready to repel boarders," said Bearwarden, observing it for the first time and fixing his glass upon it. "That must be Phobos."

Not ten miles off they beheld Mars's inner moon, and though their own speed caused them to overtake and rush by it like a whirlwind, the satellite's rapid motion in its orbit, in a course temporarily almost parallel with theirs, served to give them a chance the better to examine it. Here the mountain ranges were considerably more conspicuous than on Deimos, and there were boulders and loose stones upon their slopes, which looked as if they might at some time have been frost and water on its surface; but it was all dry now, neither was there any air. The evidences of volcanic action were also plainly visible, while a noticeable flattening at the poles showed that the little body had once rotated rapidly on its axis, though whether it did so still they had not time to ascertain. When abreast of it they were less than two miles distant, and they secured several instantaneous impressions, which they put aside to develop later. As the radius of Phobos's circle was far shorter than that of the parabolic curve they were making, it began to draw away and was rapidly left behind. Applying the full apergetic force to Mars and the larger moon, they shot away like an arrow, having had their speed increased by the planet's attraction while approaching it, and subsequently by repulsion.

"Either of those," said Bearwarden, looking back at the little satellites, "would be a nice yacht for a man to explore space on. He would also, of course, need a sun to warm him, if he were making it beam to draw away from the planet, and could revolve about it like a moon."

Thus they sat and talked, or studied maps and star charts, or the stars themselves, while the hours quickly passed, and they shot through space, three hundred million miles, and had to cross the orbits of innumerable asteroids on the way. The apparent size of the sun had increased, and the interior of the Callisto was no longer uncomfortably warm. They divided the day into twenty-four hours from force of habit, and drew the shades heavily during what they considered night, while Bearwarden distinguished himself as a cook.

The following day, while in their observatory, they saw something not many miles ahead. They watched it hour after hour, and in fact all day, but notwithstanding their tremendous speed they came but little nearer.

"They say a stern chase is a long one," said Bearwarden; "but that being anything I have ever seen."

After a while, however, they found they were nearer, the time taken having been in part due to the deceptive distance, which was greater than they expected.

"A comet!" exclaimed Cortlandt excitedly. "We shall really be able to examine it near."

"It's going in our direction," said Ayrault, "and at almost exactly our speed."

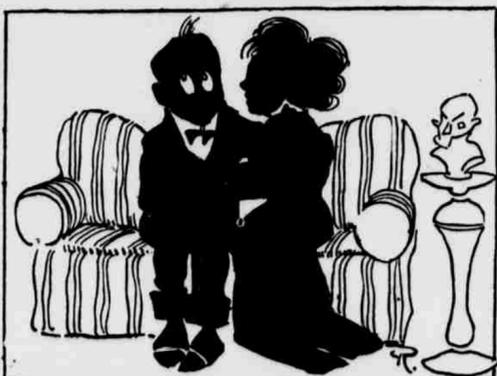
While the sun shone full upon it they brought their camera into play, and again succeeded in photographing a heavenly body at close range. The nucleus or head was of course turned toward the sun; while the tail, which they could see faintly, preceded it, as the comet was receding toward the cold and dark depths of space.

(To Be Continued.)

## Silhouette Smiles

(Copyright, 1912, by The New Publishing Co. (The New York World))

By Joe Ryan



She—When we are married, dear, I must have three servants.  
He—Certainly, darling. But try to keep each as long as possible.



"Have you ever come in contact with royalty?"  
"Have I? Why, only the other night I was beaten by four kings."

## "S'Matter, Pop?"

(Copyright, 1912, by The New Publishing Co. (The New York World))

By C. M. Payne.

