



JULES VERNE'S TOMBSTONE AT AMIENS
PORTRAYING HIS IMMORTALITY

AMAZING STORIES

Vol. 2 No. 4
July, 1927

EDITORIAL & GENERAL OFFICES: 230 Fifth Ave., New York City
Published by Experimenter Publishing Company, Inc.
(H. Gernsback, Pres.; S. Gernsback, Treas.; R. W. DeMott, Sec'y)
Publishers of SCIENCE & INVENTION, RADIO NEWS,
AMAZING STORIES, RADIO LISTENERS' GUIDE, RADIO
PROGRAM WEEKLY
Owners of Broadcast Station WRNY.

Contents for July

The Ether Ship of Oltor By S. Maxwell Coder.....	318
The Voice from the Inner World By A. Hyatt Ferrill.....	328
The Lost Continent By Cecil B. White.....	339
The Gravtomobile By D. B. McRae.....	347
The Plattner Story By H. G. Wells.....	356
Von Kempelen and His Discovery By Edgar Allan Poe.....	363
Radio Mates By Benjamin Witwer.....	368
The Moon Pool (A Serial in 3 parts) (Part III) By A. Merritt.....	374

Our Cover

this month depicts a scene from "Radio Mates" by Benjamin Witwer, in which the scientist—at one time the victim of a vicious plot—is ready to turn the aerial switch, which will cause his sweetheart, in the mammoth transmitter tube, to disappear gradually and be transmitted through space by ether wave action, and be reproduced at some distant point, where he expects to follow immediately in like manner.

In Our Next Issue:

THE WAR OF THE WORLDS, by H. G. Wells (a serial in 2 parts) Part I. In his characteristic manner, this famous author of scientification, gives us a vital, fast-moving story about a not too impossible attack upon the Earth by Martians sometime in the future. He gives us some strange and astounding ideas about the Martians, their means and methods of warfare, and adds to the realism and picturesqueness of the story by his vivid descriptions of well-known localities in England.

THE RETREAT TO MARS, by Cecil B. White. The discovery of a complete Martian library in a cave in Africa furnishes this leading author-astronomer of the West ample opportunity to tell an absorbing story of vivid detail about Martians. The mathematics contained in the story only add to its *verisemblance*. This is an unusual story, excellently told.

THE CHEMICAL MAGNET, by Victor Thaddeus. The suggestions of what chemistry in the future may yet accomplish is largely responsible for the atmosphere of sober reality which pervades this rather wonderful story. We know that the ocean contains gold in enormous quantities. Why not extract it?

ELECTRO-EPISODED in A. D. 2025, by E. D. Skinner. This is humorous story, in which radio out-radios itself, creating many marvelous wonders that seem extremely real and possible; it is a very interesting combination of wit, science and fiction.

THE SHADOW ON THE SPARK, by Edward S. Sears. To possess perfect health and a robust physique, does not mean that death from shock is impossible. On the other hand, if such a person dies, apparently from the effect of an operation for the amputation of a leg, some suspicion as to the real cause of his death is justifiable. Our new author weaves his science through this unusual murder story in a thoroughly ingenious manner.

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AMAZING STORIES is published on the 5th of each preceding month. There are 12 numbers per year. Subscription price is \$2.50 a year in U. S. and possessions. Canada and foreign countries \$3.00 a year. U. S. coin as well as C. S. stamps accepted (no foreign coin or stamps) Single copies, 25 cents each. All communications and contributions to this journal should be addressed to Editor AMAZING STORIES, 230 Fifth Ave., New York, N. Y. Unaccepted contributions cannot be returned unless full postage has been included. ALL accepted contributions are paid for on publication.

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General Advertising Dept., 230 Fifth Avenue, New York City.
ADVERTISING REPRESENTATIVES

L. F. McCLURE, 720 Cass Street, Chicago, Ill.
DAVIES, DILLON & KELLY, 15 West 10th St., Kansas City, Mo.
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THIRD HONORABLE MENTION IN THE \$500 PRIZE COVER CONTEST

Awarded to William H. Christie, 1949 Crescent Road, Foul Bay, Victoria, B. C., Canada, for "The Lost Continent."



The Doctor released the machine from his grasp and there it remained, spinning like a little world in space.

The LOST CONTINENT

By Cecil B. White

CHAPTER I

THE name of Doctor Joseph Lamont is so well known to the public that it is hardly necessary to introduce him. The startling advances which have recently been made in liberating the energy of the atom and the still more remarkable feat of the actual creation of matter from energy are, as nearly everyone knows, due to his untiring efforts.

Five years ago I had the good fortune of being selected to fill a vacancy in his small staff. A few months previously I had graduated with honors in physics at Chicago. Evidently he had been

impressed with the new methods I had developed in my line of attack on the problem of atomic structure, for after the appearance of my paper in the *Journal of Physical Science*, which resulted from these investigations, I received a short note requesting me to call upon him at my earliest convenience.

The outcome of my visit was that I was elected to fill a position which I had not even dared to hope for.

About two years ago he requested me to come into his office, asking me to bring Harvey, another member of the staff, in with me. This was an unusual occurrence, for we were generally given our instructions in type-written form by his sec-

THIS story, which has been awarded Third Honorable Mention, is particularly interesting because it was written by a prominent astronomer and embodies some very interesting bits of real science. Of all the prize-winning stories submitted, this one certainly contains the best science. It contains quite a good deal of unusual thoughts on the Fourth Dimension. Furthermore, if you wish to have a good insight into the Einstein Theory, in a manner that will be easy to understand by laymen, here is your chance to get a pleasant and palatable dose of it. The idea of bringing the lost Atlantis into the realm of the story we consider a happy thought. Certainly the author made the most of it in his original and really ingenious manner.

retary, and our reports were dictated to the secretary every day so that it was seldom necessary for any of us to enter his office. Something unusual was evidently in the wind.

As soon as Harvey could leave the apparatus he was using we hurried down the corridor which led to the doctor's office. ("The Doctor" was the name we usually gave him when talking of him among ourselves.) On entering the office we found him toying with a strange looking bit of apparatus which was set up on his desk. He motioned to us to be seated, passed his cigarette case, and when we had both lighted our cigarettes, said, "I want both you men to look over a couple of things I have just completed—this," pointing to the apparatus on his desk, "and this," taking a spherical object out of a drawer.

Leaning back in his chair, he commenced: "I suppose you both remember Merton's paper which appeared in the *Mathematical Journal* some time ago. In this paper he claimed, and apparently substantiated his claims, that time is actually another dimension, not merely a mathematical one. Well, after carefully studying this paper I became convinced that, with the knowledge we now possess, it would be possible to construct a piece of apparatus which would distort the space-time coordinates, if I may express it that way. The distortion of these coordinates would allow any object within the distorted area to slip back through time."

"After all, there is really nothing very strange in looking into the past, due to the finite velocity of light. Every day of our lives we see things that have happened in the past, for we never see anything as it really *is*, but as it was when the light that reaches our eye left it. Thus we see the moon as it was one and a quarter seconds ago; the sun as it was eight and a third minutes ago and the stars as they were years ago; hundreds of years or thousands of years, depending upon their distance.

"By maintaining the correct relationship between the forces generated by this machine, any object between these electrodes" pointing to a pair of bell-shaped terminals connected with the instrument, "will slip back in time as far as the field reaches. The distance into time which can be penetrated depends upon the field-strength. On it being reduced, the body is allowed to slide forward in time until it reaches the present. If, however, the field is suddenly cut off, the object will remain in the past. I lost a perfectly good pair of pliers somewhere in bygone ages this morning when I made my first test of the machine. I suppose you would both like to see it in action?"

A bottle of mucilage was selected for the demonstration and was placed between the electrodes. On closing the switch a glass bulb, shaped somewhat like an X-ray tube but containing three elements from which wires led, through platinum seals, to the intricate wiring of the apparatus, lit up. A small graduated dial on the front panel of the machine was slowly turned under the doctor's fingers and, in a flash, the bottle and its contents disappeared. "That bottle," said the Doctor, "is, as near as I can figure out, some seventeen thousand years into the past."

"Then you can never recover it," said Harvey.

"Why not?" asked the Doctor.

"Because back there there will be nothing above the ground level to support it."

"That is correct," was the Doctor's reply, "but although the object has nothing to support it, it will remain in exactly the same position relative to the earth."

"Can you give me any reason for that?" said I.

"I confess I cannot, but nevertheless it must be so; look!" And with that the Doctor slowly turned back the dial and there stood the bottle before our startled gaze.

"Had I snapped off the current suddenly, then the bottle would have fallen. I believe," remarked our chief, "that is what must have happened to my pliers this morning, for I couldn't recover them although I sent back a powerful horse-shoe magnet, only a few seconds later. The magnet returned without the pliers."

Harvey looked at me and gave a puzzled laugh: "This is H. G. Wells' 'Time Machine'* come to life and no mistake. Will it send things into the future, Dr. Lamont?"

"It will not," was his reply. "In Merton's equations for the space-time coordinates for the future you will find, as a factor of one of the terms, the symbol i ,† hence I do not believe it will ever be possible for us to explore the future."

"Then you intend to explore the past?" I asked.

"I do; and I intend to start the construction of my machine as soon as possible. But I haven't shown you this other thing yet."

I think Harvey as well as I had forgotten all about the spherical object, so interested were we in the other apparatus.

"No one knows just why a body falls to the earth when released, or why one body attracts another. We know what we call the constant of gravitation and we can explain the movements of bodies when subjected to this force, but of the nature of the force we know nothing. It may be some sort of electrical field set up by the presence of matter; and that is what I'm inclined to believe it is myself. Some months ago I made a startling discovery, from which has developed this object."

"This sphere consists, as you can see, of two hemispheres mounted upon a central shaft, or axis. They are so arranged that they turn in opposite directions at exactly the same rate, and, having equal moments of inertia, the axis on which they turn will remain stationary. Each hemisphere is covered with many thousands of turns of fine wire imbedded in an insulating medium which gives a smooth polished surface. The secret of the property of this sphere lies in the winding of the wire. One of those little atomic engines we made, serves as the power plant for the sphere; it is fastened to the coils and turns the hemispheres. It also generates the power which maintains the necessary potential difference across the windings of the sphere.

*See AMAZING STORIES, May issue, p. 148.

† i , the square root of minus one that makes any real quantity operated on by it an imaginary quantity: $i^2 = -1$, $i^4 = -1$.

"Now, if I hold this sphere so that its axis is perpendicular to the earth's magnetic lines of force, a current would flow through the winding when the hemispheres were turned, were it not for the opposing e.m.f. set up by the generator. If the hemispheres are revolving with sufficient rapidity, and the current flowing through the wires is of the correct value, the earth's attraction for the sphere is exactly neutralized. With the correct ratio of speed to current, and these being greater than in the former case, the sphere will rise."

Here the Doctor arranged the sphere with its axis in the correct position, pressed a small knob on one of the extremities of the shaft, and the hemispheres immediately began to turn.

"I have adjusted the mechanism so that the force of gravity is exactly neutralized," our chief continued, "in a few seconds the hemispheres will be turning at some seven thousand, five hundred revolutions per minute, which is the requisite speed."

As he finished this sentence, the Doctor released the machine from his grasp and there it remained, spinning like a little world in space.

"Uncanny, is it not?" commented Harvey.

I agreed with him; it was decidedly uncanny to see an object weighing perhaps five or six pounds floating there above the desk like a child's balloon.

"You will notice that the thing's plane of rotation is practically unchangeable, due to the gyroscopic action of the rapidly rotating parts," the doctor continued, "hence, once the sphere is launched, it would take a tremendous expenditure of energy to alter such plane. This factor is going to prove exceedingly useful when the machine lands, for the supporting cradles need only to be correctly orientated. Then all the pilot has to do is to descend directly over a given point, when the sphere will fit snugly into her berth."

"How are you going to propel your craft," I asked the Doctor, "by air propellers?"

"No," he replied, "by a more efficient method. By ionizing the air in one direction or the other, there will be a steady uniform thrust against the machine, which will propel it in the desired direction. For my ionizing medium I am going to use X-rays developed in quartz tubes. It is a good ionizing agent, and is much more simple to handle than other known methods. Now let us come down to business.

"I am going to start the construction of a sphere at once. I have here complete plans and specifications for the finished machine, and I want you two men to take complete charge of the work. I hate to do it, but I will have to set you a time limit for reasons I will explain to you later. The sphere *must* be completed within nine months. It is a difficult task, I know, but it can be done. Here, take these blue prints away with you and look the thing over."

We left the room with a backward glance at the sphere, still quietly spinning where the Doctor had released it. When the chief said that he wanted a thing done, no one who knew him stopped to argue; one went away and did it, for he never asked the impossible.

Harvey and I went to work.

CHAPTER II

THREE weeks from the specified time the sphere was completed except for the fittings that would make the living quarters habitable. My readers will remember the accounts of the building of the sphere which appeared in the newspapers throughout the country, hence it will be unnecessary to repeat them here. As you know, the nature of the sphere was kept a close secret. Many wild guesses were made however, none of which came near the truth, the greater number favored some kind of new power generator, and indeed it did look somewhat like that as it lay in its cradle.

Built close to the great Pittsburgh steel works, so as to be near our source of supplies, the sphere dwarfed everything in the vicinity, as well it might, for its dimensions were truly colossal.

To the model we saw in the Doctor's office had been added a ring at the equator, if I may so call it, of the sphere. This ring, eighty-five feet wide, forty feet thick and six hundred feet inside diameter, was held in place by immense radial arms attached rigidly to the axis. It was cellular in structure, consisting of sixteen cells. In each of these cells was placed the individual high-frequency apparatus for each ionizing element which projected through the walls of its cell. These elements were hollow quartz rods tapering from a foot in diameter where they left their socket to six inches at their outer extremities, thirty feet away. The sockets in which they were set were of the same material, concave in form.

The making of these quartz pieces was a feat of engineering itself. No large quantities of this material had ever been shaped before, and it was only due to one of Harvey's inventions, the atomic flash furnace, that we were able to make them. In the "flash furnace" we disrupted the atoms of a certain element that was placed alongside the pure quartz fragments. The heat thus developed immediately fused the quartz and, while it was still plastic, it was formed into shape like so much white hot steel. A full description of the engineering difficulties and how they were overcome will be found, by those who are interested in this phase of the work, in *The Engineering Quarterly*.

The space in the cells not occupied by the exciting mechanism was adapted for stores, crew accommodation, etc. No windows or ports were provided, however, because of the harmful effects of the intense rays from the ionizers. Only in the pilot cabin, attached to the lowest cell, was any view from the sphere obtained, and there only through heavy lead-glass windows which absorbed all but the most intense of the rays.

Connecting gangways and passages, along with a series of small elevators, gave ready access to any part of the sphere. The engines which were to drive the hemispheres were the largest atomic engines that had yet been constructed and were distributed in two sets of three each geared directly to the hemispheres at their rim, so synchronized that each hemisphere turned at exactly the same rate.

In order that any alteration of the outside resistance to the motion of these two halves of the sphere

might be compensated, a system of small water ballast tanks was arranged so that the moment of inertia of the hemispheres might be changed if necessary in order that the ring might always remain stationary. These were controlled from the pilot cabin, whence the ionizers and generators for the current flowing through the wiring of the sphere were also regulated.

The trial trip of the sphere was made secretly one cold rainy morning, about two o'clock. Nearly all the members of the laboratory staff were pressed into service as the crew. Our chief mechanic acted as engineer with three assistants for his staff. Harvey, with another assistant, was in charge of the ray generators whilst the Doctor and I occupied the control cabin.

On the signal being given to the engineer, the great hemispheres slowly and smoothly began to revolve, gaining speed every second until within ten minutes they were spinning with the calculated velocity necessary to lift us when the current was sent through the many miles of wire covering them. The Doctor closed a switch that operated a relay and watched the ammeter before him.

"Unless my computations are wrong, we are rising," he said. It was too dark to see the ground below, but watching the barometer, I noticed a drop in the column.

"According to this we are up two hundred feet, but I didn't feel anything when we left the cradle," I replied.

"I didn't think we would," the Doctor retorted. "I purposely kept our acceleration small."

Now that we were well above the surrounding buildings, I could see the lights of the city dimly through the rain. Another look at the barometer showed we were rising rapidly and would soon be above the clouds.

"Let's get above this," said our pilot, "and let us see the stars for a change. I haven't seen them for weeks."

Increasing the speed and current very carefully, the Doctor added:

"Five thousand feet should take us out of the clouds." I watched the barometer and at four thousand feet peered through the glass.

"Open the window, the ray is not on," commanded the chief.

I obeyed. The air was cool, but fresh and invigorating. "That's the first good breath of fresh air I've had for a long time," I said, taking deep breaths. "There is our old friend Orion in the southeast, Sirius is just rising."

The Doctor came and stood beside me.

"I wonder how long it will be before we can break the bonds that hold us to this earth and visit some of our nearer neighbors in space," he said.

"I've often had day dreams of that occurrence," said I.

"Well, dreams sometimes come true," the Doctor remarked, "but we must get on with our tests. We must return in about an hour."

I closed the window and the Doctor returned to the control panel. A series of switches were closed one by one, and as each was closed, a dial beneath it was slowly turned. A speed indicator at the side

of the cabin slowly climbed its scale until it stood at eighty miles an hour.

"That will be enough for now," the Doctor said. "Until I am perfectly sure of myself, I don't want to take any risks."

For an hour we tested the sphere in every possible way, rising, falling, turning, until the Doctor was confident of his control. A faint flush in the eastern sky warned us that dawn was approaching and that it was time for us to return. Our every move had been recorded automatically on a chart attached to the wall, a little device of my own that enabled us to return to our starting place without hesitating. Slowly we sank until we saw the guiding lights of two assistants we had left behind. Then, without an appreciable jar, the great sphere rested once more in its cradle.

The motors were cut off and an inspection of the massive bearings of the hemispheres was at once made. They were as cool as when we left the cradle, thanks to the excellent workmanship of those that made them.

"A fine time I had of it," grumbled Harvey, good humoredly as we walked home to our rooms. "I didn't see or hear a thing except the sparking of the 'ray generators all the time we were aloft. Were we aloft, or are you pulling my leg?" he jocularly asked. "Next time we go up, I'm going to put a school boy in charge of the 'rays. There isn't a darn thing to do, and he can do that as well as I can."

The following days were employed by Harvey in installing the "time machine" as he insisted on calling it, while a gang of carpenters fitted up the cabins and sleeping quarters. In sixteen days after the trial trip, the sphere was fully conditioned and ready for the use to which the Doctor intended to put it. This part of the work was done in my absence, however, for the day after our trial trip, I packed my suit case and left for Europe, bent on another mission.

CHAPTER III

THREE weeks after the events just described I boarded the liner *Auranian* at Southampton. She was about to sail on one of her popular round-the-world tours, carrying some nine hundred passengers. Of these more than half were members of the International Geographical Society, representatives of every civilized country, who had been elected by the members of the society to represent them at a conference which had recently been held in Paris. Following the conference, the majority of the delegates were taking advantage of the special program that had been arranged by the steamship company and the attractive rates which had been offered them. For that reason we found so many of them on board the *Auranian*.

Some of my readers may remember the bitter controversy that was waged some years ago between Dr. Lamont's late brother, Professor Thomas Lamont, and the leaders of the I. G. S. Those who recall these events will remember that Professor Lamont claimed that his researches among Aztec ruins had led to the discovery of substantial evidence as to the truth of the legend of the lost conti-

ment, Atlantis. This evidence, in the form of objects of commerce and art, had been saved by the few survivors of the greatest disaster the human race has ever known, or had been left by them and their descendants as records of their age. Unhappily, these precious relics were lost in transit and no trace of them has ever been found, despite the expenditure of the professor's modest means in the vain attempt to recover them.

Perhaps rather unguardedly, the professor published a book in which he set forth his discoveries and claims, with the result that he was branded as a cheap "sensation monger." Not having his proofs to back his statements, the poor fellow was deeply humiliated. It was a heavy blow to him, his health was undermined by worry, and within a year of the publication of his book he passed away, dying, his friends believed, of a broken heart.

It was with the hope of vindicating his brother that the Doctor had built the sphere. The meeting of the society and the voyage to follow had been arranged long ahead of time; the Doctor, knowing these plans, after the invention of the sphere and its strange auxiliary, had decided to convince his brother's critics at one blow.

The first port of call of the *Auranian* was to be Vera Cruz whence the members of the society could proceed to view some of Mexico's most famous examples of early civilization. Before they reached this port, however, we were all to see sights that few men have dreamed of, including Atlantis itself. I was, of course, the Doctor's representative. Neither he nor any of the crew of the sphere would be able to see anything of the lost continent. I was to carefully record our experiences with both camera and pen. Tests with small animals and birds had shown that there was no danger attached to the experiment, and, with larger apparatus, the Doctor, Harvey and I had all made journeys into the past. But that is another story.

The voyage down channel and into the open Atlantic was uneventful. Five days after seeing the grey cliffs of Old England drop astern, we were sailing over the lost continent. I overheard several discussions of Professor Lamont and his book, and all were unanimous in deriding him. At the table, however, I found one supporter of our friend, the master of the *Auranian*. Captain Mathews was an enthusiastic amateur archaeologist and his own observations had led him to the conclusion that the legend of Atlantis was more than a mere myth. Of course, when he ventured to express his beliefs, he was gently laughed out of court by those in the salon.

The morning of the sixth day out dawned clear and calm. The old Atlantic was on her best behavior. This was my eighth trip across the "Herring Pond" and never had I seen such perfect weather. I took up a position near the radio cabin immediately after breakfast, after telling "Sparks" where I could be found. The Doctor had warned me to expect a message from him this day and I was more than anxious to receive it. The whole thing seemed so unreal.

About ten-thirty, ship's time, the operator handed

me a slip of paper. The message was brief—"About 2 P. M., Lamont"—it read.

One-thirty found me leaning over the starboard rail searching the northwestern horizon with a powerful pair of binoculars that I had borrowed from the first officer. A faint smudge of smoke in that quarter offered an excuse for my conduct to those that noticed me. Within a quarter of an hour I picked up a tiny speck, lost it, then picked it up again. In a minute it was decidedly larger. It was the sphere.

I could have shouted aloud in my delight, for although I had worked on the thing for eight months and had been in the control cabin on its trial trip, yet I could hardly realize that such a stupendous thing was a reality.

In a few minutes it was visible to the naked eye, traveling towards us at express speed. Soon others had noticed it, and before it was within ten miles of us, everyone on board knew of its presence and the decks were crowded with passengers eager to see the strange object.

Speeding along some five hundred feet above the sea it came, until it was abreast of us, about a mile away. Everyone was wildly excited and asking his neighbor questions. A few of them recognized it for what it was—Dr. Lamont's strange creation. Like magic the word passed and, I think, fear filled the hearts of a few when they knew that this machine was controlled by the man whose brother they had been instrumental in ruining. Perhaps thoughts of an insane revenge upon them entered their minds as they gazed on the colossal, spinning sphere.

As the sphere swung overhead, I ran up the steps to the bridge.

"Captain Mathews," I said, "will you please bring the ship to a stop? Dr. Lamont is in command of that sphere and he has a message for those on board."

The captain looked at me in surprise.

"I suppose we had better see what he wants," he remarked as he turned to the engine room telegraph.

I had donned a pair of tinted glasses and could look at the sphere without discomfort. Others, who were not so provided, found their eyes were hurt by the bluish glow of the ionizers, though few recognized the cause of their discomfort.

The familiar smell of ozone permeated the air, due to the rapid formation of free O₃ by the action of the rays.*

A window in the pilot house opened and, protected by a heavy mask, a head appeared. Armed with a megaphone, the Doctor addressed the *Auranian's* crowded decks.

"PASSENGERS of the *Auranian*," he began, "you are now directly above the lost continent of Atlantis which my brother, through his researches, showed to have existed before it was overwhelmed by the Atlantic, the ocean which bears its name. Among you there are many members of the society whose unsympathetic treatment was directly responsible for his death. I am here to vindicate him by showing you this once thriving and populous

*Ozone is a molecule of oxygen containing three atoms, and is readily formed by ionization of the air.

country, which lies beneath your feet, as it was in those days before the flood. Do not be alarmed. I assure you that no harm will come to any of you. I have here in my control a machine that will send you and the vessel that carries you back in time, and I am about to send you fourteen thousand years into the past, when you will see with your own eyes, that my brother, the late Professor Lamont, was right."

While he was speaking, the *Auranian* had been gradually losing way, until now she remained motionless on the glassy sea. The Doctor withdrew his head and a moment later the rays were cut off.

Two heavy cables terminating in broad, bell-shaped electrodes, were now unwound from drums situated in the extremities of the axis, where the electrodes were snugly held when not in use. A hundred feet or so above the water they stopped; one on the port bow, the other on the starboard quarter.

I knew what to expect and looked at the sun. Suddenly it shot eastward and disappeared, only to reappear again in the west as a streak. Night had passed like the wink of an eye. The streak marking the sun's course wavered with growing rapidity until it became a band of light forty-seven degrees wide. The sea was a cloudy mass. Then suddenly, I caught glimpses of a rugged landscape below. Again I glanced at the sky, the wavering streak reappeared, darkness, a flash, and then the sun was shining in its accustomed manner, except that now it was further in the west. By it, I judged the time to be about five o'clock.

There, above our heads, hung the sphere. The electrodes were glowing with a soft purplish discharge, similar to the cathode glow of a discharge tube. The effect of this strange transition upon the passengers of the *Auranian* may better be imagined than described. Their first fear was that they would be precipitated upon the rugged cliffs below. Then nameless fears took hold of them.

I did my best to alleviate these fears by walking rapidly among them, telling them that I and others had undergone the same thing several times before and to take advantage of the opportunity afforded them of seeing a country that had existed before the dawn of the Pharaohs. Little by little their fears subsided, until the more courageous began to take note of their surroundings. I remember one red-haired, freckle-faced boy dashing madly for the boat deck. I thought he was panic-stricken and I seized him.

"Let me go, mister," he panted, "I want to get a grandstand seat for this show."

This little episode relieved the tension of those about us and a laugh went up.

"The laddie is right," a burly individual remarked: "where are my glasses?"

This started a general scramble for points of vantage and I hurried to the bridge, where I met Captain Mathews.

"This is a strange business," said he. "I suppose I'm not dreaming by any chance?"

"No, not unless we all are," I replied.

"Is there no danger of the ship falling," he asked.

"None at all, Captain. I've been in the same position before," I answered.

Thus assured, he turned to the wheel house for his binoculars, while I turned to the examination of the country below us.

We had come to rest over the eastern cliff of a miniature Grand Canyon, into which flowed two rivers from opposite points of the compass. The thunder of their fall as they crashed into the gorge below us filled the air with the noise. Cut off from the rays of the western sun, the bottom of the abyss was lost in shadow so that the outlet for these two streams was hidden from us. I am inclined to think that they drained into some subterranean outlet for there was no visible gap in the confining walls.

Crowning each precipitous slope were magnificent temple-like structures which might have served as the inspiration of the glorious architecture of ancient Greece. As far as I could make out with my glasses, they were carved out of the living rock, the slopes of which had been in most cases, at least, carefully smoothed by the hand of man.

Miles of verdant pasture and waving grasses, which I took to be corn, covered the plateau which was rent by the canyon, and here and there I could discern moving objects, cattle in the fields.

"Look over there to the south," said the captain, who had come to my side. "There are some of the Atlantians themselves."

Sure enough, I could see with my glasses a small group of the inhabitants of this weird city. Save for what appeared to be a feather head-dress they were without ornament or clothing. This article was bound about the forehead, passing over the shoulders and down to the forearms, where it appeared to be fastened.

"I wonder," remarked my companion, "if that is the origin of the feathered head-dress of our American Indians. The survivors of this continent may have carried and introduced the custom to that country."

"It seems quite likely," said I. "You will remember that one of Professor Lamont's drawings, taken from a chased silver tray, showed a figure arrayed as these are."

"Do you notice," he continued, "that these people seem to show no fear at our appearance?"

"Yes, I do," I replied. "I wonder if it is possible that they have learned the lesson we have yet to learn; that is, not to allow superstition to enshroud that which we do not understand or cannot explain."

"Superstition is the basis of a lot of our unnecessary fears," he remarked. The Atlantians, as the captain had called them, were, from what I could see of them, a splendid race. Tall and lithe, with strong chiseled features, any one of those I saw might have posed for a Grecian statue. The only sign of emotion of the group on the cliff was shown by a tall kingly-looking man who, standing erect, with arms extended, gazed in our direction with a look of admiration upon his fine face. Perhaps to him, although our appearance was a mystery he could not solve, we appeared as an object of art, worthy of admiration. What is more beautiful than the clean cut lines of a greyhound of the sea!

That art to them was part of their daily life could be seen on every hand. Their buildings over whose roofs we were suspended showed in every line and column a high artistic standard. The broad paved roads over the countryside, lined with delicate palm-like trees, the smoothing of the walls of their cliff-like dwellings, their own figures and artistic head-dress, all pointed to a highly artistic temperament.

By this time the colonnaded summits of their towers were alive with people, all of the same fine type as those I have just described, surprise and excitement was written on many of their faces but nowhere did I see an expression of fear. Can it be that these people of bygone ages were devoid of it?

A low musical murmur from the crowds welled up to us above the roar of the cataracts. Turning my glasses on the nearest group, I saw a couple of men joyously, it seemed to me, discussing our vessel, for I could see by the motions of their hands that the symmetry of the sphere and ship was what excited their admiration.

Time was rapidly passing and I had yet to obtain my photographs. Taking out my camera, I set it up on its tripod, for time exposures were necessary with the powerful telephone lens I was using.

"I was so interested in this scene that I never thought of that," exclaimed Captain Mathews. "I'll get mine, too."

By the time he returned, I was busy making a series of exposures of the surrounding country and the strange city on special color process films. The captain was soon engaged with his camera also.

"I'm rather proud of my collection of photographs," he chuckled, "as is Captain Hughes of the Blue Star Line of his. Won't he turn green with envy when I show him these? He was so proud of the pictures he got of Mauna Loa in eruption, too."

The sun was close to the horizon before I finished.

"How long is Doctor Lamont going to keep us here?" the skipper asked.

"Not much longer," I answered, "for the tubes which excite these electrodes get dangerously hot in a couple of hours. That is the limit of the time during which we can be kept here. Dr. Lamont is working on a new tube which will not overheat, but he had not completed it when the sphere left Pittsburgh. I hope we can remain until dark, for I would like to make some observations of the stars."

"By Jove, yes," exclaimed the skipper, "the procession of the equinox should put the constellations out of their seasons by six months."

"Nearly six months and twenty days," I replied.

"From a shot I made at the sun while you were busy with your camera, I should say that we are near the summer solstice," said he.

I busied myself with pencil and paper.

"If that is so, then we should see Orion in the southeast and have Vega near the pole," I observed.

"That will be about it," he mused. "I wouldn't like to navigate this ship now with all my ten-day stars out of place by hours, and no direction finding apparatus to assist me."

The sun was sinking behind a range of low hills to the west as he spoke. Twinkling lights appeared

in the city below while faint music rose out of the dusk.

"Do you hear that?" asked Captain Mathews. "Does not that remind you of Massenet's 'Elegy'?"

"It certainly does," I replied. "There is a strange resemblance in parts of it. We were right when we credited these people with a highly artistic development. What a loss to the world the sinking of this continent has been. Had that not occurred, our civilization might have been greatly in advance—thousands of years in all probability—of what it is now."

THE music ceased, and again we heard the soft murmur of the people below, though now we could see nothing of them in the shades of evening. The liner was brilliantly illuminated and that must have been the new attraction. The stars were appearing as night closed around and, sure enough, there was Orion where we had expected it whilst Vega occupied the position where we were accustomed to see Polaris. I thought I could detect a slight change in the relative positions of the stars in Orion and was certain that Vega had moved considerably with reference to the four other bright stars in Lyra.

Here is an opportunity, I thought, for an astronomer to obtain excellent proper motion data. An observatory equipped with a meridian circle could obtain a wealth of information, if it could be sent back through time several thousand years. I must propose that to the Doctor.

I was aroused from my reverie by the captain.

"Look at those electrodes!" he exclaimed.

The glow which surrounded them seemed to be slowly creeping up the cable. Without any warning the sun appeared in the east and streaked across the sky.

"We are going forward," I said to my companion. "Evidently the tubes would not stand much more and the Doctor is reducing the strength of the field."

In spite of the reduction, the glow on the cables continued to increase, rapidly mounting to the sphere itself and, just as we reached our normal place in time, the huge machine was enveloped in a bluish haze and vanished.

"What has happened?" Captain Mathews inquired.

"Something has gone wrong," said I. "The machine itself must have slipped into time."

He probably noticed my worried look and the nervousness I felt.

"Is there any danger?"

"None for us. We are back again in our own time, but for those on board the sphere, I'm not so sure. If they have slipped into the past, I'm afraid they cannot return, for the present will be their future and the machine will not travel into the future."

"But it was with us when we were back there," said the skipper, waving his hand in the direction of the lost city.

"Yes, it appeared to be," I explained, "but if you had been here in the present when the ship was in the past, you would have seen it too."

"This is too much for me," grunted the skipper.

"And for me, I don't hesitate to admit," said I.

"Can we do anything?" asked the captain.

"Not a thing just now. All I can do is to get back home as soon as possible and organize a rescue party," I replied.

For the remainder of the voyage, the passengers of the *Auranian* had plenty to talk about. Discussions as to the correct interpretations of what they had seen waxed hot, but all were now with one accord sure that they had been in serious error over Professor Lamont's work.

Accounts of the strangest voyage ever made by a vessel were sent to the four corners of the earth, by radio, and none hesitated to give Professor La-

mont the appreciation he deserved. "A man's worth is not known until he is dead" is a true saying.

As soon as I could, I returned to the laboratory and set to work to organize a relief expedition. The equipment is complete and in a few days we leave. That we will return with Dr. Lamont and his companions or not at all, is my belief. Before leaving, however, I have penned these lines so that the whole story of the building and loss of the sphere might be complete. Other accounts of our strange visit to Atlantis will be found published by members of the I. G. S., Captain Mathews, and others, to which I can refer my readers. You have read my account of our visit to the Lost Continent; now wish me luck in my venture to bring back the lost ones.

THE END.