



JULES VERNE'S TOMBSTONE AT AMIENS  
PORTRAYING HIS IMMORTALITY

# AMAZING STORIES

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### 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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FOURTH HONORABLE MENTION IN THE \$500 PRIZE COVER CONTEST  
 Awarded to D. B. McRae, 392 E Street, San Bernardino, California, for "The Gravitomobile."



He placed a piece of copper on the bench where the tweezers had lain. When he released it, it flew to join the tweezers. Then a piece of rubber, a lead pencil, some silver coins, and finally, a glass stopper from a nearby bottle leaped to the knob when they were brought near.

# The GRAVITOMOBILE

## By D. B. McRae

**T**HE ancient little engine slowly and laboriously grunted its way over the rusty rails and finally came to a halt by the side of a lonesome shack. At one end of the decrepit building there

dangled a weather-beaten sign with the words, "El Centro," still faintly legible.

Surely this could not be the place where I was to meet my old friend Harry Teasdale. I glanced at the letter he had written me. Yes, it certainly said "El Centro," and it further assured me that he would meet me there. I descended from the old caboose which this Mexican railroad was

pleased to call their passenger car, seated myself on a bench which looked as though it might collapse at any moment, and prepared to await my friend's arrival. As the train pulled out, the conductor gazed pityingly in my direction, as though

somewhat in doubt as to the sanity of any one who would stop in that forsaken place.

I had come there as a result of an invitation from Harry Teasdale, an old college chum of mine. We had started together in a scientific course a good many

years ago, but I had soon fallen by the wayside, mathematics being the chief cause of my downfall. I had flunked so many "exams" that the

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*THIS time the illustration on the December, 1926, cover, furnishes the author a chance to work out, mathematically, some very ingenious ideas on gravitation. The last theories of the structure of the atom are used in a most entertaining manner in the development of a dramatic story. You will not only enjoy this story, but its O. Henry ending will probably leave you nonplussed for the time being. All in all, it is really a good yarn, with a "different" treatment.*

---

"exit committee" had finally informed me that my absence would be an asset to the university.

Harry, on the other hand, simply ate up all the "math" they could feed him, and in his second year had astonished his professors and classmates by putting on the blackboard a solution to a problem which had been given to the class as an example of a type of the unsolvable.

Physics and chemistry had fascinated him to such an extent that he barely succeeded in making passing grades in some of his other subjects. In spite of his brilliancy, however, he was not a favorite with the professors. He had a most annoying habit of talking about his own ideas when called upon to recite in class, and was not averse to pointing out defects in an instructor's reasoning processes when he noticed them. The fact that he was as likely to raise a question on a point of this kind in the classroom as in private, did not add to his popularity with the faculty.

In the laboratory he annoyed them by neglecting his work to carry on private experiments and by using methods of his own, in preference to following their directions.

Though most of the professors disliked him for these reasons, they could not find sufficient excuse for getting rid of him. He always succeeded in getting his assignments finished before the allotted time, and even when hurried through at the last moment his work was invariably correct.

Finally he was given his doctor's degree, partly because of some researches he had published which the faculty had discounted, but which had finally reflected credit upon the school; partly, no doubt, because it was the best way to get him out of the way. Several concerns had offered him good positions as chemist, but he had rejected them all.

"Too much routine," he said. "I can't see any fun in hanging around a laboratory all day stirring some stuff in a beaker in a way that any numbskull could learn to imitate in a day or so."

Shortly afterward he had disappeared, and I had heard nothing of him for several years.

Then one night while dining with Bill Weston, another classmate who had become a traveling salesman for a mining machinery concern, the talk had drifted into a discussion of what had become of some of our old friends.

"By the way," Bill said, "I ran across Harry Teasdale while I was on my last trip through Mexico."

"Mexico!" I ejaculated, "What on earth is he doing down there?"

"Operating a mine—a pretty good piece of property, too. I sold him a big order of machinery and supplies. Seems to be getting along fine."

I spilled a spoonful of soup down the front of my best dinner coat. I couldn't imagine Harry as a miner. He fitted more naturally into a world of dreams and theories than into a practical world of dollar chasers.

Curiosity led me to write him at the address Bill gave me. In an immediate reply I was cordially invited to come down and pay him a visit. I had accepted the invitation, and now here I was staring out over the dreary landscape.

An hour had passed and I was feeling thoroughly disgusted with myself for wasting a good deal of time and money purely to satisfy my curiosity. If the train had come back then, I should, no doubt, have gone home again. If I could only have obtained a glimpse into what the near future held for me, I would never have waited for the train—I would have walked back, but I had no inkling of coming events and I waited.

"YOU are Mr. Albert Fisher?" a pleasant voice from behind me asked.

Startled, I whirled around to find the owner of the voice, a tall blond young man of about twenty-five.

"Doctor Teasdale couldn't leave this morning, so he sent me to meet you and bring you over. I'm Pete Nelson, one of his assistants," he stated.

He led me over to a racy-looking roadster which he had driven up unnoticed, while I had been absorbed in my thoughts. We climbed in and Pete stepped on the gas. He proved to be an excellent driver. The road was quite rocky in spots but he showed an almost uncanny skill in missing the bumps. I tried in vain to lead him into conversation.

We stopped in front of a long low building, which looked as though it might be an office or a laboratory. There were other buildings scattered about, which I decided must be mine buildings.

"Doctor Teasdale is in his office, I think," Pete informed me, leading the way toward the front door of the building.

Before we could enter, the door was pulled open and I found myself shaking hands vigorously with my old friend.

"Well, Al, it seems like old times to see you again," he said. "How are you?"

Then before I could answer he added that I was just in time for dinner, and had better go and wash up a little.

The dinner was excellent but I was so interested in my host and his story of how he had happened to become a mining man that I did not pay much attention to the food.

After leaving college, he had drifted around for some time trying to find some way of making enough money to equip a private laboratory where he could do research work according to his own ideas. One day an old prospector had shown him some lumps of a peculiar yellow earthy material which Harry had analyzed and found to have a large radium content. They had become partners and Harry had discovered a method of extracting the radium at a fraction of the cost of the old process. As a result they had become wealthy. Then the old man died, leaving his interest in the mine to Harry.

As a result Harry had been able to carry out his old dream of establishing a research laboratory of his own. Thanks to the income from the mine he could carry on his experiments without being bothered by the question of finances.

"But perhaps you would rather see it than listen to my talk about it," he said as he led me toward the back part of the building.

"I would be interested in doing both," I replied.

As we stepped inside the door I was astonished to see what he had accomplished. An immense room was filled with every imaginable kind of apparatus, and a good many kinds that I should never have been able to imagine. There were huge glass bulbs of curious shapes, some with liquids bubbling in them, others glowing with strange lights as though some sort of electrical discharge were passing through them.

Several men were busily at work in different parts of the room. For the most part they seemed to be young men, but every one of them appeared to be intensely interested in what he was doing.

"These young men you see here are, in a way, my students. Because my methods and apparatus are considerably different from those used in the colleges and in other laboratories, I have found it necessary to train my workers in my own laboratory. Some of these men I have picked from the colleges. In fact, I make it a point to learn of those college students who have shown exceptional ability along lines that would be useful in my work. Quite a few of these men, however, I have trained entirely in my own laboratory, and I have found that by eliminating the many non-essentials that fill up the college curriculum, they are able to make exceptionally rapid progress."

While speaking, Harry had led me over to a window, from which I got a view of a number of smaller buildings.

"Those are private laboratories provided for some of my advanced workers," he said, "I have men working in almost every branch of science, chemistry, physics, geology, and many other lines," he went on to explain. "I don't believe that any university has better equipment than we have right here, thanks to the mine."

### A Discovery

HE led me into another room filled with apparatus still more complex than that I had seen thus far. Huge machines which seemed to be of an electrical nature lined one wall, while on benches running back and forth through the room stood a bewildering array of apparatus which I cannot even begin to describe.

"I want to show you my latest discovery," he said, as we paused before a curious looking bulb. It was about a foot in diameter, and was made of some material which looked very much like glass, yet had an odd, translucent appearance such as one sees in a thick piece of celluloid. On top of the bulb was a peculiar sort of funnel leading into the interior of the device. On each side of the funnel an electric wire led in. At one end, if a sphere can be said to have an end, a short metal rod extended out from the bulb and ended in a knob.

Harry closed a switch and the bulb began to glow with a strange greenish light. Then he picked up a bottle of a metallic-looking powder and poured a few grains into the funnel on top of the tube.

A pair of tweezers which had been lying on the bench immediately leaped up and clung to the knob on the end of the metal rod. Harry looked at me. Some comment was evidently expected.

"Some new way of developing magnetism?" I ventured.

"Not exactly," he replied. "What would you say about this?"

He placed a piece of copper on the bench where the tweezers had lain. When he released it, it flew to join the tweezers. Then a piece of rubber, a lead pencil, some silver coins, and finally, a glass stopper from a nearby bottle leaped to the knob when they were brought near.

I could only stare at the miscellaneous collection of objects adhering to the knob. I wasn't quite sure that it wasn't some conjuring trick performed for my benefit.

"Albert, I have discovered the secret of gravitation!" Harry said, as he turned off the current and the objects dropped.

"Gravitation!" I exclaimed. "Do you mean to say that you were neutralizing gravity when you made all those things jump around just now?"

"Well, it could hardly be called neutralization," he replied. "That is an unfortunate error into which a great many people, even among scientists, have fallen. They have assumed that the proper way to approach the problem of gravitation was to attempt to find some means of neutralizing the attractive force.

"The neutralization of the force is an important and interesting phase of the problem," he went on. "But I decided long ago that it was not the proper method of approach if we expected to find out anything about the nature of gravitation. If we once discovered the nature of the force, then it would be a simple matter to devise means of controlling or directing or even of neutralizing it."

"You have discovered what the force is," I queried.

"Yes, it is a vibration in the ether having an extremely short wave length, far shorter than any other radiation known, either of light or X-rays. In fact, no ordinary apparatus can detect them."

"How did you discover them?"

"I had been considering the various theories that had been propounded, and found that none of them offered any explanation of why certain materials such as lead and gold should experience a strong attraction, while others, such as aluminum and hydrogen, should be acted upon but weakly. You understand, don't you, that all matter is built up of atoms which are in turn built of electrons, and protons, electrons whirling around the nucleus, made up principally of protons, in such a way that the atom resembles a miniature solar system?" he asked.

"In a general way," I replied. "I remember that Professor Foster at college used to lecture about them."

"Very good," Harry said. "Perhaps you also remember that the heavier atoms are composed of more protons and electrons than the atoms of the lighter elements. The thought struck me one day that since an increase in the number of protons in an atom is accompanied by an increased mass, and at the same time by an increase in the force with which that atom is attracted by other portions of

matter, that the force must be caused by something within the proton.

"It had already been proved," he continued, warming up to his subject, "that ordinary light is produced by sudden changes in energy which result when an electron jumps from one orbit to another in the course of its revolutions around the nucleus of the atom. I have discovered now that the electron itself is built up of still smaller sub-electrons. Changes in the orbits of the sub-electrons produce the gravitational wave. By means of my new method of quadruple hypocycloidal integration I have calculated——."

"Hold on there awhile," I shouted. "You got out of my depth quite a while ago."

Harry laughed.

"I almost forgot your unfamiliarity with higher physics. I was just starting to tell you all about it."

"Never mind, I'll take your word for it, if you'll just tell me the results in plain English."

"All right, Al. Boiled down to bare facts, that machine I showed you produces the gravitational wave. The energy is radiated from the knob on the end of the rod. As a result, other matter is attracted by it. By varying the amount of the substance which you saw me pour into the funnel, I can regulate the power of the wave emitted. When it becomes more powerful than the attraction of the earth on any object, then the object will move towards the source of the stronger wave. By suitable changes in the electrical forces which I apply, I can change the nature of the wave until I get a repelling force instead of an attractive one."

"But why doesn't everything in the room, and even outside, fly towards your machine as soon as you turn it on?" I asked.

"Fortunately its range is limited to a comparatively short distance, depending on the size of the knob and the power used. Outside a radius of about eight or ten inches with this particular machine, the attractive force is less than that of the earth and consequently there is no great disturbance produced."

### The Gravitomobile

**W**HAT use do you expect to make of this now that you have discovered it?" I inquired.

"Come with me and I'll show you one of the biggest things that has ever been thought of here on this earth," Harry replied.

He led me out of the back door and towards the low hills a short distance away. We climbed over the first ridge and looked down into the valley on the other side. There were a number of small, shedlike shops arranged in a large circle. In the center of this circle there was under construction an enormous structure of some sort. It was so covered with scaffolding that few details could be seen.

"What is it?" I asked.

"I call it my 'Gravitomobile'," he answered.

When we came nearer I could see through some of the openings in the scaffolding, and I found that the structure was a huge globe made of the same

peculiar, glass-like material as the bulb in the laboratory. In the thicker layers used here the translucent appearance was more noticeable than it had been in the smaller bulb.

Workmen were climbing about, engaged in various tasks. Some were removing metal forms, while others, higher up, were pouring into place a plastic mixture which from my viewpoint appeared to be concrete.

"This is plastonium, a new compound which I have synthesized," said Harry. "It can be mixed and poured into place like concrete. After it sets it becomes as strong as steel, and a better insulator than glass. It is going to make a fine bulb when it is finished. Don't you think so?" he asked.

"For the love of Pete, you don't mean to say you are going to build one of your crazy machines this size, do you? Why, man alive, you'll tear up everything for miles around!" I objected.

"You forget that I don't have to use the full power. Besides, don't forget that I can adjust the wave length so that it will attract only those particular substances I want attracted."

"What use do you expect to make of the thing?"

"By properly directing the repelling forces I shall be able to raise the machine into the air, and by the use of attractive forces from other radiators at the same time I shall be able to pick up objects of all sorts and carry them around wherever I want them. That's why I call it a Gravitomobile—a machine to travel around by using gravitational forces. Can't you see how useful such a device might be?"

"Possibly," I said, "if the contraption will work the way you intend it to."

"There is no doubt about that," he replied optimistically. "It is based on sound theory backed by mathematics. There is no reason why it should fail."

During the next few days the greater part of the scaffolding was taken down, and the workmen began to build at the bottom of the sphere a metal structure in the form of a boxlike compartment about ten or twelve feet deep, and some twenty feet or so in width. This was attached to the surface of the sphere.

As soon as this was completed to Harry's satisfaction, they began another at each end of the first. By the end of the week a ring of the metal compartments extended completely around the sphere. Two great dome shaped metal structures had been placed at the ends, if a sphere can be said to have an end, so that the whole resembled a huge model of the earth with a chain of compartments running around the equator and a metal dome at each pole.

During most of the time Harry had remained in his laboratory, feverishly working on some problem. Not wishing to disturb him I spent some of my time watching the construction work on the Gravitomobile, which had now come to have a peculiar fascination for me.

When the work on these compartments, as I have called them for lack of a better name, was finished, Harry came out and began to supervise the installation of a great deal of machinery therein. Now and then he would find a few spare moments to explain to me what was being done.

It seemed that instead of being one huge bulb, as I had thought, the sphere was divided into a number of sections or independent units. Each of the metal compartments was a power house and control station for one of the sections. There were fourteen of these divisions located under as many sections of the girdle, besides one at each end where the two domes or caps were located.

"The principal wave generators which will supply the attractive or repelling forces necessary for the movement of the machine in space, are the ones located under the central belt," Harry said. "You see those pointed rods which are being placed around the circumference?"

I looked up. Extending outward through a hole in the center of each compartment a long, pointed metallic rod had been placed, and was being fixed in position by pouring a mass of the insulating material, plastonium, around its inner end.

"Those are the radiators. By directing the repelling waves out through the rods pointing downwards the whole machine will be repelled away from the earth with a force depending on the amount of power I use. By directing the waves to one side I shall be able to travel in any direction. I suppose you have seen boats which propelled themselves by shooting out a jet of water at the stern?"

I nodded.

"The idea is very much the same," he said, "except that I can also make use of attractive forces at any time that they suit my convenience better."

"How about the caps on the ends?" I asked.

"They will be used for lifting objects which I wish to carry from one place to another. Each cap contains several hundred feet of cable carrying an attractor on the end. The cable is made of a special alloy which will conduct the waves down to the attractor. When I want to lift anything I shall merely let out cable until the attractor is near the object, turn on the power, and I shall have it fast."

Two days later the Gravitomobile was ready for its trial flight. All the workmen had gathered on the near-by hill to watch it. Even the laboratory men had left their experiments this morning to see the results of the test.

Harry walked over to the compartment nearest the ground, calmly opened a door and climbed in, closing the door again after him. A few moments passed, then the sphere began to glow. An expectant silence settled over the watchers.

An open space appeared between the sphere and the ground where it had been resting. Gradually the space widened, slowly at first—a foot, two feet, five, then faster, ten, twenty, fifty, until finally it floated gracefully several hundred feet above the ground.

There was no doubt that the Gravitomobile was a success. A cheer rose from the crowd. Then followed a series of maneuvers in which the machine rose and fell, moved back and forth over the field, and performed all kinds of stunts. Finally it hovered over a huge boulder some fifty feet in diameter. From one of the end caps a bell shaped piece of metal descended at the end of a long cable until it nearly touched the rock. Then the sphere as-

cended, the heavy boulder dangling at the cable end like an apple on a string.

### A Scientific Invasion of Mars

"WHAT do you expect to do with it?" I inquired when he had returned. "Go into the freight business?"

"Al, you never could see a use for anything unless you could make some money out of it, could you?" he laughed. "What would you think of a little exploring trip—to Mars for instance?"

"Mars! Surely you're joking."

"No, Al, I have never been more in earnest in my life. That was the idea I had in mind when I started to build the machine, but I thought I would say nothing about it to you until I could show you the machine can work."

"But what do you want to go to Mars for?"

"Oh, for any number of reasons. I could get first hand information about a lot of things—what kind of people, if any, live there, how they live, and what kind of a place it is. You know that scientists have a lot of theories about Mars. Some think there is life there, while others are just as positive that it is too cold or too dry, or too something or other for life there. As a matter of fact, we know nothing about it. What better way could there be of settling all these arguments than by paying the place a personal visit?"

There was certainly a good deal of logic in his argument. It seemed reasonable enough that the best way to find out about a place was to go there. Besides, who could tell what strange adventures we might have there. Probably it was the last idea that really made up my mind. Ever since I had pondered over Robinson Crusoe and Treasure Island, as a boy, I had harbored a secret desire to explore strange lands.

"By George, that's a good idea," I exclaimed. "When do we start?"

"Not so fast there," returned Harry. "I thought you would decide to come along but we can't start today. The boat hasn't come yet."

"What boat?"

"The one I am going to take with me."

"Why, man alive, what do you want with a boat? You won't find any place to sail it on Mars. It's all desert there."

"I'm not so sure of that," he replied. "I have reason to believe that we'll find some remnants of seas large enough to float a good sized boat."

"What kind of boat is it?" I inquired.

Just then a young man entered the room and handed Harry a piece of paper.

"Here is a radio message that just came," the messenger announced.

"The boat is in the harbor now," Harry said after reading the message. "Let's go down and take a look at her. It's only a few miles."

The boat proved to be a small ocean steamship, over two hundred feet long. From the outside she appeared not radically different from other ships of the same type. Inside, however, I found that in place of the usual staterooms, a large number of well equipped laboratories had been fitted up.

"I intend to take along enough men so that we

will be prepared to make a real study of whatever we find there," Harry explained. "One man alone, no matter how brilliant, could not hope to thoroughly cover all the fields of chemistry, mineralogy, zoology, entomology, and the numerous other branches of science, so I am taking along men who are specialists in these lines. When we get there I shall have a definite procedure mapped out for each man so that we will be able to cover his ground effectively without wasting any time. I even plan to take some reporters and a couple of cameramen to write up the story of the trip and take motion pictures."

"Of course I could not even begin to carry all these things with me on the sphere because there is not enough room. The solution to the problem seemed to be to use the Gravitomobile merely as the means of carrying along some other conveyance which was better adapted for storing and carrying things. What sort of a conveyance should I use?"

"It was because a modern steamship has so many things built into a small space that I decided to make use of one instead of trying to build something of my own design. It already is equipped with power plant and facilities for storing and preparing food for many people for a long time; in fact, it is a miniature floating city.

"We can take along our well equipped laboratories; we can take food, fuel, books, and all kinds of things that will make our work easier and life more comfortable than if we had to rely on what little we could crowd into the limited space on the Gravitomobile itself. Just imagine having all the comforts of home way off there on a strange planet," Harry enthused.

I imagined. It did sound good—too good to be true.

"It will be a pretty heavy load, won't it?" I asked, looking rather doubtfully at the ship.

"Yes, but nowhere near the limit of the machine's lifting capacity," was the response. "I will have to start getting our laboratory apparatus transferred to the ship," he went on. "The food and fuel are already aboard, and the laboratories have been pretty well fixed up, but there are still a number of special instruments to be put in place."

### The Journey

SEVERAL more days were required to get the apparatus aboard and in its proper places, but finally everything was in readiness. The scientists, reporters and cameramen had moved into their quarters on the ship. Harry and Pete Nelson were to stay on the Gravitomobile, because they were needed to operate the machine.

"Where would you rather ride, on the ship or with me?" Harry asked me.

"I'll go with you," I decided.

It was the first time I had been inside the sphere. The greater part of the space in each compartment was occupied by machinery. A great deal of this seemed to consist of electrical generators, transformers and other similar devices. These, I was told, were necessary to generate the currents which were fed into the bulb to produce the gravitational waves. A curious mechanism near the center was

arranged to feed in the metallic powder which in some way seemed to be responsible for the working of the device. One peculiarity I could not help remarking about.

"Everything is upside down."

"Yes, relative to the earth," Harry replied. "When we get out into space away from the earth's attraction, there will be no up or down. We shall find ourselves floating around in here like so many balloons. It will be rather awkward to try to do anything in that predicament, so I have placed attractors in the side of the compartment next to the sphere. When I turn them on, we will be attracted in that direction and will be able to walk around as easily as though we were on the ground."

Pete, who had been sent to see if the ship was in readiness, now returned.

"All ready," he reported briefly.

He climbed in and fastened the door. Harry stepped over to the control panel, moved two or three small levers, pressed a button and slowly began to turn one of the numerous knobs. A minute or two passed and it seemed that nothing had happened.

"What's the matter? Why doesn't it start?" I asked.

"It might interest you to look out the window," Harry suggested.

I turned towards the observation port, and was amazed to find that the ground was far below. The machine had started so gently that I had failed to notice it. A twirl of another knob and we moved swiftly toward the bay. In a moment or two we were hovering over the boat.

Then the two attractors rapidly descended until they almost touched the vessel, one at the bow, the other at the stern. I could see tiny figures of men moving about on the deck. A voice came from the radiophone set:

"All right there! Hoist away!"

The ship lifted as easily as one might lift a child's toy steamer out of a pond. It seemed incredible, but there was the boat dangling in the air below us at the end of two slender cables, while the earth rapidly dropped away. Harry was busily engaged in making some fine adjustments on the control board. Pete handed me a pair of binoculars with which he had been regarding the boat.

"One fellow seems to be on the job," he remarked.

I took the glasses and saw one of the cameramen with his tripod set up on top of the bridge, industriously grinding away.

Soon I began to feel a shortness of breath, and a queer feeling in my ears.

"The air is getting thinner," said Harry. "We had better close the porthole." He slid a heavy plate glass cover over the opening, and clamped it down over a rubber gasket. We could still see out, but we were no longer exposed to the rapidly decreasing air pressure.

Down below I could still see tiny figures moving about on the ship.

The thin air doesn't seem to be bothering them much," I said wonderingly.

"The gravitational field around the attractors serves to hold a supply of air around the ship. I



am hoping that it will last for the greater part of the journey," Harry explained. "If it should gradually leak away, there will be no harm done because I have taken the precaution of fitting the boat with air-tight portholes and hatches which can be closed. However, I don't think they will have to be used, although here on the sphere, I can't keep an atmosphere because of the repelling waves I am radiating from the rods."

THE sky soon became darker, and a few of the brighter stars began to show, although the sun was still in plain view. The earth began to take on the appearance of a huge relief map, practically the whole of both North and South America being visible. The globe was noticeably convex.

We had left the denser parts of the earth's atmosphere, and Harry increased the speed although we had been traveling pretty fast before. Soon I noticed a peculiar lightness in my steps as I walked along the passageway. I began to feel as though I were an actor in one of those slow motion films where people float around in the air for a second or two before they land again.

"We are ten thousand miles from the earth," Harry announced after inspecting an instrument which appeared to consist chiefly of a swinging pendulum attached to some sort of a mechanism. "I think I shall turn on the floor attractors before we completely lose our footing."

"Hold your feet toward the ceiling, like this," he ordered.

He had taken hold of a metal rod with one hand and with it as a support, was standing on his head. With his free hand he reached for a knob.

It looked like a mighty senseless procedure to me but I did as I was told. A second later he turned the knob, and like a flash my feet shot to what had been the ceiling and stopped with a jar that seemed pretty violent after the easy, semi-floating movements I had been experiencing. I now saw Harry's logic in having me stand on my head. Had I not done so I should no doubt have been wearing a good sized bump on my head where it would have come in contact with the new floor.

"How does it feel?" Harry asked, unconcernedly strolling about in his new position.

"Rather queer. Am I going to hang upside down like this for the rest of the trip?"

He laughed.

"That's just your imagination," he told me. "It will soon wear off. You had better climb into bed now and get some sleep. I'm going to do so myself as soon as I see that Pete has everything going smoothly."

Still feeling upside down, but finding that there seemed to be no immediate danger of falling off the ceiling, I crawled into my upside down bunk.

When I arose in the morning, I was surprised to find that what I had thought of as walking on the ceiling now seemed to be perfectly natural. In fact I could scarcely convince myself that I had been walking on the opposite side of the room on the previous day.

Harry had breakfast ready, and I ate ravenously, largely, I suppose, because I had been so excited

the day before that I had not eaten much. Nothing very exciting occurred that day or, indeed, for several days. Pete and Harry took turns on watch while I insisted upon being promoted to the position of cook, as I felt that I ought to do something to help, and I would have been of little use at anything else.

The earth's disk had gradually grown smaller and fainter, while that of Mars became brighter and clearer. Finally there came a day when we could make out the details of the planet's surface.

During the next day or two the planet's disk continued to grow. Fresh details which looked like the outlines of continents showed up plainly now. Harry checked our speed somewhat. The planet, now much larger than the moon appears to us on the earth, began to take on a convex appearance. Looking for the ship I found that it had swung around until it lay directly towards Mars.

Harry decided to turn off the attractors in the floor and I again experienced that peculiar topsy turvy feeling that I had felt when he turned them on, but this time the feeling did not last very long.

The planet grew larger and larger until it finally filled our whole field of view. Harry slowed down and began to look for a place to land.

We could plainly see the details of the surface below us now. For the most part it seemed to be desert. Further around on one side, we saw a small body of water, with a stream flowing out of it.

"We could land our ship down there," I ventured.

"Yes," Harry replied, "but I want to see if there are any better places and if there are any signs of life. I am going to follow that stream and see where it leads."

### Catastrophe

WE were now drifting along slowly only a few hundred feet above the surface of the ground. Presently a number of tall, cylindrical objects with rounded tops appeared ahead. As we drew nearer, it became evident that they were buildings of some kind. They appeared to be built of stone of various colors ranging from a dull brown to a light yellow. The size varied considerably. There were large ones, and small ones; some were short and wide, others high and narrow. Only in one respect were they alike—each had on its top a dome, supported by pillars, and every dome and pillar was bright yellow in color.

These peculiar structures were built along both banks of a ravine which appeared to be of great depth, for I could not see the bottom. The stream we had been following flowed over a ledge of rock and became a beautiful waterfall disappearing into the depths below.

We had started to drift over the ravine when the machine suddenly lurched and began to fall.

"Good Heavens! The bulb partitions have broken down!" cried Harry as he sprang for the control board. "The waves have got mixed and have neutralized each other."

Inside the sphere I could see a bright red glow, where it should have been faint and green. In spite of Harry's frenzied efforts, we continued to fall.

We were entering the ravine now. I caught a



glimpse of people on the edge of the cliff—a strange race with red skins and a winglike growth across their heads and shoulders.

The red glow filled the whole sphere as Harry applied the last bit of power the generators could produce, in a last vain effort to check our descent.

“My God,” I groaned. “There goes the ship.”

It had parted from the cable at the bow, and was hanging by the stern. Even as I watched, the hold weakened there and it plunged headlong into the gulf.

We were falling now, faster and faster. I lay as though petrified, living, it seemed, through ages of time, yet powerless to do anything. A numbing terror held me in an icy grip.

I dully felt an impact, heard faintly a dull roar as hundreds of tons of material were crushed and rent into a shapeless mass, felt myself forcibly flattened against a hard, unyielding surface.

Then all was darkness.

When I regained consciousness, there came the sudden knowledge that I was still in Professor Foster's physics class, and not on another planet. Dr. Foster was looking at me.

“What is your answer, Mr Fisher?” he said.

“I beg pardon, sir, but I didn't hear the question.”

“Perhaps it would aid your hearing if you could postpone your afternoon nap until after class,” he remarked sarcastically.

THE END.