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A Trip to Mars

By Marcianus F. Rossi



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By Marcianus F. Rossi

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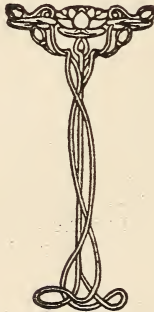
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A Trip to Mars.

PREFACE

In tracing the source of Natural Motive Power, Ballistic and electric magnetic energy, Etheric waves and Aerial currents, Volcanic force and Zoatical solar air electricity, I have been finally led to the recognition of the sublime plans adopted by an Infinitely Intelligent Creator for perfecting the operation of the mechanism of his universe. The beautifully arranged scheme of the universe, is readily discovered to be working with such orderly and divine machine-like regularity that the descriptive appellation of "Mechanism of Heavens," has been applied to them by Philosophers.

No portion of matter of the universe is in an absolute state of rest. All the planets of the solar system are urged with a velocity similar to that of the Earth in their respective orbits.

Zodiacal light, which can be seen after sunset extending from the Earth's horizon obliquely upwards, rising beyond the limits of the atmosphere of our earth and through the depths of space into the heavens as a nebulous cone of a dense atmosphere of electricity, excites our admiration.

It is manifest, that no two planets encountered can come into touch at the same time in connection with this beam of dense atmosphere of electricity without causing a reciprocal influence causing mechanical action; and re-

action; a flux and reflux penetrable between the earth and worlds like ours. **The encounter of the two worlds in direct line of our Zodiacal light constitutes the most positive test that can be adduced to prove that communications from our world and a world inhabited like ours has existed at all time.**

Marcus Aurelius says that Pharaoh, King of Egypt, communicated with his generals hundreds of miles off by despatching written letters to the disk of the Moon.

Perhaps "people like us in worlds like ours have never ceased to try to communicate with us" although infinite intelligences are incapable of comprehending our world's messages or transmitting messages to them. Yet it affords an interesting view of the sublime Zodiacal nebula of dense atmosphere of electricity with the immediate scope to attempt to transmit messages through this electric current to people like us in worlds like ours at the same time and moment when the worlds like ours are in straight line with our Zodiacal beam of light, electricity and air.

By following the guidance of this Zodiacal beam extending from the earth upwards in the depths of space in the heavens, on the 15th of November 1918, Planet Mars appeared in conjunction with our Zodiacal beam, which propagated mechanical action through the medium of electric matter. It was then that Captain Marchy, in pursuing this electric current, startling as it may seem, and absolutely beyond the range of past human experience was guided to fly from the earth to the planet Mars, accomplishing the trip of 45,000,000 miles in 4 minutes and 21 seconds.

Again Scientists appear to have lost sight of the part that volcanic eruptions have played in dealing with the origin of Meteors, which fly at high velocity through space, and can be shown to be huge rocks blown out by dreadful eruptions of the volcanos of worlds like ours. But the fact is most significant, and must be considered that out of the huge rocks blown out by the now extinct volcano of Roccamonfina, in Italy the Collosseum was built, which is the largest edifice on earth.

With the rocks blown out by Vesuvius the Appian Way, 150 miles long, was built. This fact establishes that rocks blown out by Vesuvius in the year 79 A. D. in falling 150 miles distant from Naples to Rome, had been blown on trajectory. Evidently those rocks, which were blown straight up, had passed the orbit of the earth into space and never came back.

On the summit of Mount Vesuvius, previous to the eruption, as the *Antiquitate Italianorum* says, there existed a swet-bath grotto like the famous one of Monsulmano (Toscany), Iron anforacunicas were used by the Romans to take sweat-baths.)

Many surnamed it baby chicken in its shell. The bursting of the volcano threw high above the earth's surface the iron shells with the bathers. One of the shells was picked up in the sea, but the others were blown so high that they never came back. The Sibyl of Cumae, who was supposed to have lived 1,000 years, was locked in one of these shells and never returned to earth.

The terrific eruptions of the volcanos of Roccamonfina, Vesuvius, Stromboli and Etna, establish that Italy is the

mother of many meteors, which fly, through space, and that some of the shells, as stated, may have landed in a world like ours.

Historians appear to have lost sight of the Sibyl, a young woman of supernatural knowledge, whose temples are found throughout Italy. With the departure of the Sibyl, it is sad to note, angelic purity and true miracles died. Pulibus tells us that in this Prophetess' books the facts are cited to show that the frozen terrestrial region was caused by the dislocation of the terrestrial pole, and that the earth had inclined on one side with it. It was the Sibyl who sold to Tarquin, the Proud, the Sibylline books. Her books were entrusted to a college of 15 men, who preserved them and consulted them on occasions of national danger. The books were kept in the Temple of Jupiter at the Capitol. As no one lived on earth to the age of 1000 years since Adam and Eve, it is manifest that the Sibyl was a pre-Christian messenger of the Creator, who departed from this world to dwell in a world like ours for thousands of years longer.

A TRIP TO MARS

CHAPTER I.

The Encounter

On the fifteenth of November 1918, Rubeus, responded to the invitation of his friend, Marchy, at the log cottage near the Hindu village. It was just when the clock struck nine at Mount Hamilton Observatory that Marchy raised the curtain of his window and on sighting Rubeus opened the door and saluted him as follows.

“My brave friend, Rubeus, I am very happy to see that you kept your promise.”

Very fortunate am I to be able to attend, worthy colleague. Too long the curator of the hindu village entertained me and let me assure you that I am very desirous of hearing the practicability of your plans.”

“Have you faith in my genius, my good friend Rubeus?” “I am almost ignored by the scientific world,” continued Marchy.

“Yes, worthy friend, answered Rubeus, that is the world’s way for you know that from the time arts have been revolutionized by the efforts of individual men. Often men not brought up to the art, but practicing in a very different occupation have done the trick. Arkwright, a barber, revolutionized the art of spinning. Cartwright, a clergyman, revolutionized the art of weaving. Watt, a maker of mathematical instruments, revolutionized every industry. Roland Hill, a schoolmaster, revolutionized our

communications by devising the penny post, and I am convinced that though you confine yourself to your particular lines, you could enter upon some grand experiment worthy of the nineteenth century.”

A profound silence ensued, and Marchy, in an emphatic tone, continued as follows: “Man seems to be the supreme, mentally elastic organism. He develops by trying novelties and by taking new paths. No one knows to what extent he may develop, but everyone knows that through acquisition of knowledge, or production of it, he may transcend any physical limits. We ought to see that everything distinguishing our lives from those of savages has come from studying something new. Now my good friend, Rubeus, before we enter upon the object, let me read to you an editorial item by Mr. H. Gernsback published by the *Electrical Experimenter*. Now listen, **A few weeks ago Macaroni startled the world by stating that he had often received strong wireless signals which seemed to come from beyond the earth.** This was concerning a recent interview published in the New York “*Evening Post*.” Even today announcements such as the above are made light of by editorial writers and others of limited scientific preception, for the earthbound layman still persists that intelligence can only exist on earth. Such childish reasoning shows what sort of intelligence blossoms on this planet.

It never occurs to these writers to question why Nature in her wisdom should have singled out the little speck called Earth on which to plant beings endowed with reason. Why should there be such an exception? Life in some form or other is certain of being found on myriads

of worlds throughout the Universe, and if one world dies, all life does not die with it. Savant Arrhenius shows us how life-bearing spores are carried by the pressure of light through interstellar space, notwithstanding the absolute zero which prevails there. Conditions on Mars we know by direct observation as well as deduction are favorable for life, and we may be certain that it exists there, and if we once grant this, we must also grant that it must have existed for hundreds of thousands of years prior to that on Earth, Consequently Martian civilization must be thousands of years ahead of ours. Suppose the Martians had sent us radio messages only thirty years ago we would have had no means of recording them, as at that time detectors and audions were undreamt of.

“That is very logical, my worthy friend, answered Rubeus with enthusiasm.

“Don’t you think it possible, worthy Rubeus?”

“The word impossible has long been cancelled from the vocabulary,” replied Rubeus.

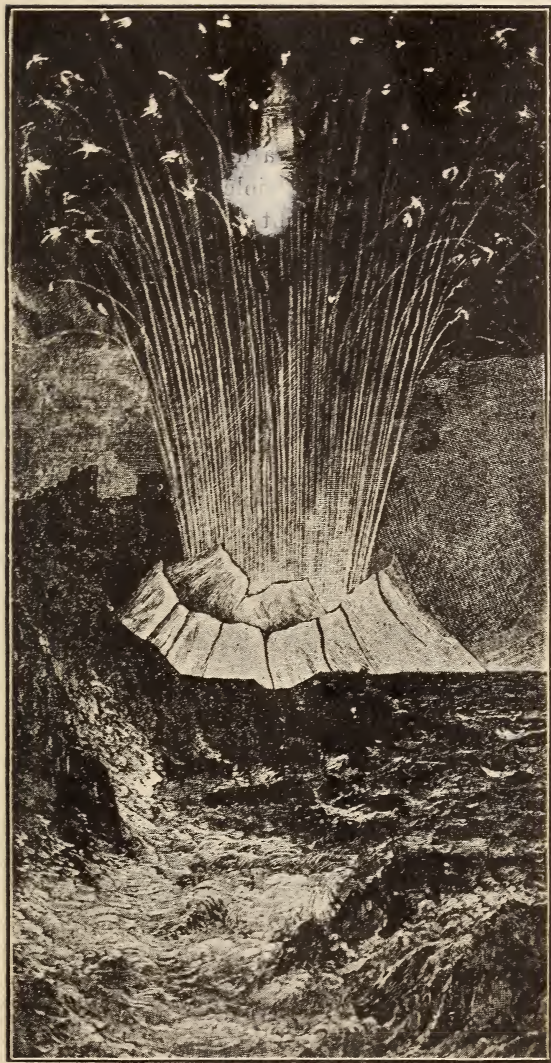
I have the honor, my worthy friend, to reveal to you my project to establish a communication and take a trip to this sidereal world, “Mars we call it.”

“Go ahead, worthy colleague, I am here to listen to you with ardent desire of accompanying you to the limit.”

“Your proposition,” continued Rubeus, reminds me of a story often heard at Rome by old people, and was of the following nature. Sweat baths were largely used by the old Romans and they had established a bathing of this sort in a grotto at Pompeii on the summit of a nearby mountain. They indulged in the heat by descending into

the grotto in huge hollow shell of sheet iron locked airtight, called *anphora cunica* and fixed on an arch and pulley. In the year 79 A. D. a dreadful volcanic eruption took place suddenly, and the mountain burst threw up great quantities of rocks to a height such that the moon's and sun's light was totally obscured for two days throughout Naples, and the huge shell and its bathers were carried so high that they disappeared into space and never returned. The occupant was *Attilius Marte*, a Roman Patrician. Rocks, ashes and smoke were carried not only to Rome, but also beyond the Mediterranean into Africa. The one thousand asteroids, that have been discovered up to the present day, might account for their journeys in the infinite, some of them grouped so closely together that they appeared to have just been blown up by that dreadful eruption of Mount Vesuvius. Asteroids are discovered to be simply jagged rocks, hurtling through space, whirling round and round. I am of the opinion that the origin of their departure is from Mount Vesuvius and that the iron bathing case, with man inside, must have been attracted by magnetic pull from Planet Mars, Moon, Jupiter or other planets. This might account for the knowledge of these people up there of our existence on this earth. Why do we receive wireless signals from them? "Nothing could be more proper," exclaimed Marchy. "It took Barbicane 1'600,000 lbs. of powder to fire its 30,000 lbs., weight projectile to the Moon, the bursting of Mount Vesuvio quadrupled it in force, blowing up an iron case weighing only about 500 lbs., man and all.

"Perfectly correct," said Rubeus, but you are not to fire a huge cannon to reach Planet Mars, are you worthy



The first eruption of Mount Vesuvius, A. D. 79., blowing straight up iron shells with the bathers, passing the orbit of the earth into space and never came back,

colleague?" Certainly not," replied Marchy.

The bombardment of Paris, during the recent world war, at a distance of 120 kilometers, has put into activity the inventive qualities of the students of the ballistics. Here revives another dream of Jules Verne, showing what he developed when making his trip to the moon. A French scientist, M. Moreax, Director of the Bougas Observatory, examined the question under various points of view. In harmony with the laws of Newton, a projectile fired on the summit of a high mountain with a velocity of 7900 meters per second, the projectile would pass the center of our globe and return to the point of departure after one hour, twenty-four minutes and forty-two seconds.

Hudson Maxim has said that it is possible to build a gun that could shoot a projectile so high that it would actually pass beyond the limit of the earth's attraction. In other words, the shell might get so far away that no longer affected by gravity it would pass out into the void of space and never return.

In a detailed scientific discussion of the German long range gun, which bombarded Paris, Major J. Matland Addison, writing in the Journal of the Royal Artillery, takes a peep into the future and considers the possibility of a gun capable of shooting projectiles entirely off the earth into space. When we are able to increase five miles per second, the projectiles will travel around the earth, as a grazing satellite, completing its orbit between 17 and 18 times daily, with a velocity of about seven miles a second and will move off into space, never to return.

The calculations of these eminent authorities on bal-

istics show that by this method of velocity and altitude a projectile would surpass the rotation of the earth. In harmony with these authorities I am convinced that it is an adequate method to produce luminous projectiles, which if fired every minute for 48 hours would naturally form a circle around the earth like the rainbow shining brilliantly and under the rays of the moon and the sun, when the horizon sinks below the sun, they would move with us with the rotation of the earth; travelling one after another in an endless chain.

This phosphorescent arc, would show sufficient spark to guide sailors at sea and men on land to travel more safely. I have designed a shell that can be loaded with a thick crystal ball, about the size of a street electric globe charged with phosphorus. The shell, on reaching the limit of its trajectory, would act like a shrapnell, forcing the crystal ball out by a powerful spring, the shell dropping after having given the crystal ball a blowout. The latter having been directed to its pathway, free from external casing, would travel, showing all its brilliancy in darkness and the rays of the moon; and the sun, when falling upon it, would be refracted into a partly colored arc.

A high trajectory projectile, mentioned by Maxim and Maitland, that would move off into space, never to return, could be utilized by another invention of mine, consisting of a shell loaded with a magnetized steel ball, actioned similarly to the crystal one described above. This second ball, is designed to conceal written messages addressed to the inhabitants of the Planet Mars. This projectile, on reaching the height of 45 miles, being beyond the earth's

attraction, would be attracted by Planet Mars. The inhabitants of that Planet could open the ball and find our message.

The possibility of firing a magnetized projectile into space and receive a powerful attraction by other Planets is demonstrated by the fact that every fragment of loadstone, when broken from its natural bed, exhibits a north and south pole, having all the characteristic properties of developing mechanical action, just the same as the poles exhibit their attraction on magnets on the earth. Observation on magnetic needles show that they are subject to sudden starts from their usual north and south positions. This fact shows that there exists a general cause of magnetic force affecting, simultaneously, all parts of the earth, and that magnetic impulse of mechanical force, in relation both to direction and intensity, are in a state of continual fluctuation, being scarcely stationary from one minute to another. The natural power of magnetic attraction between other Planets and the earth are discussed in treatises on natural motion.

In Captains Scoresby's account of remarkable ethereal phenomena accompanying a hail-storm, experienced by the packet ship *New York*, he states that the sea was in continual boiling agitation, as if acted upon by numerous submarine volcanoes. All knives and forks on shipboard were rendered strongly magnetic; one of them being rendered capable of lifting a piece of iron, weighing 228 grains. The magnetizing of steel being familiar effect producible by electric action. This remarkable phenomena appears

to be ascribable to the excitation of electro-dynamic impulses.

Experimenters in Physics have found that the velocity of magnetic attraction is about 250,000 miles per second. La Tribuna, a leading paper in Rome, illustrates methods of natural attraction between Planet Mars and a magnetized steel torpedo placed in a well 16 yards deep, walled with a magnetized steel tube. This magnetized torpedo would be attracted by natural magnetic force, and without changing its course the torpedo would reach Mars in 4 minutes and 21 seconds.

Suppose four men would take a trip into the torpedo, they could return to the earth, at the place of departure, by digging another well in Mars and putting the torpedo 16 yards deep, when the earth in turn would draw the torpedo back with similar force and velocity.

Natural motive power of attraction between the other planets and the earth remain so yet imperfectly understood that human intellect is involved in a labyrinth of difficulties similar to those in the time of Seneca and his theory concerning another continent of the globe, and the possibility of approaching it; possibilities involved in intricate difficulties until Columbus, who proved that Seneca's theory was a truthful doctrine. The moon's attraction in drawing the ocean waves, moving masses of water, dislocating rock weighing hundreds of tons, directing its march toward shore, and the open area of the bay, proves that the law of attraction is not mistaking. Drawing of light foliage of trees and other terrestrial objects while it is found to be restless, gravitation of the earth draw them all back

within its atmosphere which is found to be 45 miles high surrounding it, consequently the earth is found to be a huge magnet.

The masses of the other planets, such as Mars and the Moon, are greater consequently an object of the earth ascending beyond its attraction, say 45 miles high, the attraction power of the other planets will draw the object with more force, therefore, making it move with greater speed toward them. The atmosphere is found to be dense near the surface of the earth and rarer in high zone, so much that at a height of 10,000 yards the rarefaction is such that man would be asphyxiated. If there was no air we would be blinded by the sun. In fact, before the light and heat of the sun reaches us it has to illuminate and heat the air. Suppose a concave glass of an enormous size could be brought at the height of 45 miles. It would collect the rays of the sun so hot that it could render the frozen water in the Hudson Bay in steam boiling water and change winter into summer in that region. This theory is substantiated by the fact that M. de Villette's burning glass was only three feet in diameter and it burned at low ground. By it were melted silver and copper pennies in a few minutes and that of Buffon, with the faint rays of the sun in the month of March, he set on fire boards of wood at 150 feet distance.

It is self-evident that a concave glass brought to such a height would render future wars impossible, because shells would burst before they were loaded into guns. For such service, burning glass of a few feet in diameter well-directed on an enemy's front would affect his destruction.

What would render this concave glass more advantageous than this would be on night service; suppose the glass could be made to travel 45 miles high, beyond the earth's orbit. The concave glass would collect the bright rays of the sun and direct a beam of light so clear that it would change night into day on a good tract of the earth.

In treating the possibility of a flight of this glass, 45 miles high, we will return to obey the law of physics and see whether physics will obey the will or power of human mind.

Areoplanes have proven so effective in the past years that they have won world-wide recognition, but adverse conditions of all kinds of weather, the areoplane, after all, is nothing more than a bird in the air, flying by the use of its wings.

It is self-evident that if an areoplane can fly in the air by the use of propellers as rapidly as 150 miles an hour, not reaching an altitude of 21,000 feet, a new method should be adopted to run thousands of miles per hour at an altitude of many miles, beyond the earth's attraction, which is about 45 miles high. In ascending to an altitude of 40 miles, the motor could be stopped and a new device could be exposed for planetary attraction, and this attraction would produce a natural motion known under the laws of physics as natural magnetic power. This natural power, according to philosophers of physics, has a velocity of 250,000 miles per second. "Do you see," my friend Rubeus—there is my ariplane! "yes! but how does it run?"

The principle of this airplane is the drawing of heat from the sun's rays into a thick crystal covered tank. The

water when once heated, passes into a sulphur dioxid boiler, and eventually this water returns to the glass heating tanks exposed to the sun's rays. The scheme of this solar power is that I will be able to run my engine and dynamo without storage batteries. When the glass revolves towards the sun by a regulating device, the heated water runs from these storage tanks into the sulphur dioxid engine and boiler system. Sulphur dioxid, as is well known, has a low boiling point, so that it can be placed in the boiler and heated up, allowing the hot water to come into contact with the boiler tubes containing the sulphur dioxid. When the sulphur dioxid in the boiler commences to boil, then the necessary sulphur dioxid steam is obtained wherewith to run the engine. So you see, insted of using the fire to make steam in the boiler, hot water is used instead, which originally obtained its heat from the sun directly. As the sulphur dioxid steam leaves the engine cylinder it is repumped back again into the boiler to be heated all over again by the hot water coming from the sun tank. Free energy power plants in the southern part of the United States and the sun power plant of M r.H. E. Willsie proves that the water will remain hot from four to ten days when stored in the tanks by insulated layers of dry sand an engine and dynamo will run at night. Mr. Willsie's solar plant in Arizona has produced electric light at night, which was aetually made by the rays of the sun shining during the preceding day.

“Yes, I believe you”—the aeriolus could not be more perfect Captain! it reminds me of the nautilus of Jules Vern and a German submarine! Yes Rubeus—this aeriolus

is a locked hull similar to a submarine—the oxygen tanks are fitted within the aeriolus for the purpose of supplying us with oxygen during the time that we are confined therein. The helicopter, the prow and the side propellers have a larger volume of air to work upon and are capable of lifting their full load without wings. Do you see the units of short little guns under the prow? “Yes.” Well—by firing them continually, the aeriolus would ascend in a vacuum for the same reason that a gun would kick if fired in a vacuum and that the propelling force would be a continued kick. The hull is fitted with binoculars, electric heater, cold gelatine, electric lights, and is housed with all modern comforts.

“Captain I am anxious to fly with you to Europe, Asia and back.

“Well will you take a seat.” “Sure I will.”

Are you seated

“Yes Captain, I am.

CHAPTER II.

First Trip

Captain Marchy steered the aeriolus straight ahead. San Jose, then Palo Alto, and next San Mateo is observed. Their attention is drawn to a bay, ending with the Pacific Ocean. This, they are phoned, is San Francisco Bay, and that landing is to be made. Suddenly the water becomes steaming hot. A large crowd of people is heard to make the remark that they are feeling warm, saying that winter has been turned into summer. Many prespiring in this sweltering heat jump into the bay to take a swim. When the aeriolus apperas, in descending direction, a cover is

turned over the concave glass and the burning sun is nulled. Descending on the bay, they are overwhelmed by the crowd of curious people, who were swimming toward the floating Aeriolus. The people were skeptical, for whoever heard of summer heat in the winter season, produced by an areoplane, but being Americans, in view of what happens every day, they are naturally convinced.

“All aboard for Planet Mars”, exclaims the commander.

“What is wrong with you fellows?”

One remarks, “this confounded trip to the Moon and Mars is an old dream, and a great joke perpetrated on the public.

“Are you an astronomer, Sir?”

“Yes, you bet I am.”

Would you like to ride with us to Mars?”

“Yes, I’ll go with you fellows.”

CHAPTER III

Trip to Mars

The aeriolus rapidly starts to rise into the air. The travelers, full of hope, gaze peacefully through the crystal windows, whilst the aeriolus, under an uniform speed, crosses the sky. Out into vacuum. “Bam----, Bam-----, Bam-----! Volley of the musketry went on, and on kicking its way through space tremendously. During which time the Professor looked over the compasses and found them to mark the velocity running at 186,324 miles per second. He then began to work out figures with unparralled dexterity, looking seriously at the captain, and remarked.

“Why, Captain, the Aeriolus, is simply falling upon Mother Earth, caused by your stopping the ringer and the speed at which it is falling is enough to punch a well large enough so it would sink into the bowels of the earth.

The Captain and Rubeus could not help laughing. “Do you know what I am doing.”

“No, I do not,” answered the Professor quite seriously.

“I am using the magnetized globe for planetary attraction. The Professor then looked at the glasses and discovered the disc of a strange world appearing at a distance of 40 miles.

“We are falling,” said the Professor, quite frightened.

“Very well, old Professor, I shall now make use of the engine. The propellers will row in the air, surrounding Mars, and we will descend gracefully on to the new world.

“Nothing could be easier”, replied Rubeus, “but before we descend I am curious to know how our aeriolus will act in a parabola, travelling as grazing satellite round this new planet.” “No” answered the Professor, in a serious tone. “This is a good opportunity to observe the other side of Mars,” answered Rubeus. It was then ten minutes past two in the afternoon. The Aeriolus was following its curvation round Mars. The Captain requested his colleagues to observe two chains of mountains striped along plains enclosing two channels, wonderfully extending over immense large plains covered with ever-green vegetation. These mountains formed an orography similar to Italy, thereby making it a world fit to live in. The travellers could see two craters on the summit of two mountains,

one ending at the north and the other at the South of the channel, emanating a column of vapor similar to a flush of cyclonic air current at an interval of 6 hours, similar to the ocean tide flowing high and low.

The Professor said that the blowing of the air proved that such air tide was formed by means of a current, which ceaselessly flowed from north to south through the canyon between the two chains of mountains, the velocity of which surpassed several miles per second, running through subterranean channels, and when it rises in one mountain crater its flux forms a reflux in the other crater. Captain observed that the thermometer marked intensive heat over this hot air vapor.

“Ah”, exclaimed Rubeus, “nature has provided this world with natural heat. Mars the center of his orbit is no less than 13,000,000 miles from the sun. The light and heat received from that luminary vary to an important extent. In fact, Mars gets about half as much heat and light as the earth. The fact that hot vapors are flushed in many mountains, valleys and craters on land would indicate the process of the formation of hot clouds, a process by which Nature arranges and modifies the temperature similar to the best climatic regions on the earth. Surely, this charming planet must be tenanted by living creatures and beings belonging to the highest order of animated existence. Professor Emanuel, look over your Chart of Mars and try to locate the continents, oceans and channels designed by our Astronomers.

“Captain, we are flying over the so-called long Maraldi Sea. Maraldi Sea runs into Hooke Sea, trending in a

northwesterly direction, and so running into Dawes Ocean. Farther west are two vast islands, which are called Jacob Island and Phillips Island, between which runs Arago Strait. Beyond these islands lies la Rue Ocean, communicating by narrow straits with two strikingly similar seas. Here the zone of water ends, and we have only to note further respecting it that in De la Rue Ocean there is a large island, which presents such a brilliant aspect that it seems to be covered with Radiosand. This is called Dawes' Island. There is Herschel I. Continent. Next is Dawes Continent, separated from that long sea called Kaiser Sea. Don't get too close to the planet, Captain, spin off." "Why, Professor?" "There is a shower of meteorites, by Jove I caught one, gee, it burned my glove." "Behave Professor, do not thrust your hand out." "You see, Captain this meteor is composed of alloys of nickel, iron and chiefly of white and black diamonds." "Yes, Professor, I have been on Coon Mountain Crater in Northern Arizona and I saw the same meteorites strewn concentrically around the crater, covering about five miles of the mountain and they are composed of the same chemical elements." "Yes, I saw that my friends, said Rubeus. Coon Mountain, or Meteor Crater itself is a round hole about six hundred feet deep and about four thousand feet in diameter and was formed, it is believed, by the impact of a huge meteorite, which has never been found. It is believed that the Canyon Diablo Meteorites, of which there are found hundred individuals in the U. S. National Museum, were members of this same fall. It is possible that these meteorites that produced the crater itself fell from Mars and struck the earth

thousands of years ago." "Yes, Rubeus, weak acid shows the polished section to contain iron sulphide, phosphide, graphide, but more abundantly white and black diamonds." "If that is the case, I will not be surprised if we shall find a deposit of diamonds as abundantly as mercury on the mountains of Almaden in California," said the Captain with a smile. Further West lies Madler Continent, separated from Dawes Continent by a long strait, which runs north and south. There is Secchi Continent, separated from Madler Continent by Bessel Inlet and from Herschel Continent by Huggins Inlet. Now, before we return to the Southern Hemisphere, past the equatorial zone of continents, there appears a zone of water, expanding at one point into Beer Sea, and at the other into Tycho Sea. There also appears a zone of land, called Laplace Land, with its large lake called Delambre Sea. That narrow zone of water is called Schroter Sea.

Captain, I have heard the names of nearly all the Astronomers on Mother Earth with the exception of Schiapparelli, Lowell and Pickering. What is the matter with that map anyhow? Wait until we get down there. I'm going to give those channels real names. Do you know what I am going to name that sand down there, Rubeus? "No, I do not, Professor." "I am going to name it Radium."

"What good is it to you anyhow?" "Why, radium gives off heat at the rate of 133 gram calories per hour, and you know, five ounces of that precious stuff, which you can hold in a thimble, would propel a passenger train of 10 cars from one city to another, a distance of 900 miles by railroad. How many tons of coal do you think it takes to

operate such a train 900 miles, making a 22-hour journey? It requires 60 tons of coal to make one trip of 900 miles. What good is it to the Martians if they do not make use of passenger trains?" "Well, Rubeus, nature uses it. The effect, resulting from an increased heat of the sun's rays, produced by the calories of the radium-sand, is sufficient to retain the requisite excess of heat. The aerial currents uniform motion suffices to adjust conditions which the excess of heat at the radium desert would otherwise tend to disturb. The propagation over a wide area of this planet's surface of cyclonic or whirling winds serves as a rule to adjust the conditions, and in a thousand ways Nature's busy forces may be at work, providing there is a due supply of wind and rain, distributing heat and cold, which acts in precisely the same manner as on Mother Earth, making this planet a world fit to live in.

It was five minutes past nine. The Captain started the engine.

"What, we are descending?" exclaimed Rubeus.

"We are 20 miles from the surface," replied the Captain.

"Ah," exclaimed Rubeus, enthusiastically upon seeing a city, resembling that of Necropolis of Tarquinio. This city, built by the western shore of the channel, was constructed of diamond rocks, roofed with ruby tiles. The narrow streets were paved with green sapphire, the squares were adorned with myrtle and laurel trees and the low hills were covered with eternal vegetation. The load-stone rocky mountains constituted a barrier against the canals. Swift torrents, sweeping down the slopes of the mountain

range, exhibited denuded extensive deposits of diamonds. The canyons cut into the solid ruby rocks to a depth of many yards, and were shadowed by vineyards. Along the valley of the channels the fertilities viewed by the travelers were very vast and produced fruit, resembling pineapples and strawberries, the latter being as large as pumpkins.

CHAPTER IV

The Battle with Winged Men

While the occupants of the *Aeriolus* were making observations of the new world and the Captain was searching for a landing place, the *Aeriolus* was suddenly attacked by a flock of winged men, about the size of five year old boys, who began shooting at the *Aeriolus* with their arrows. Rubeus aimed the Brown's machine gun of 30,000 shots a minute, and a few hundred blanks were fired toward them, which quickly disbanded the Martian warriors, but they soon returned in a storm by the hundreds, howling, "fugit, mortem, noli prosequi in urbe, sine mora, fugit, fugit." "Let me use that machine gun with real stuff. By Jove, those lads are looking for trouble."

"Do not excite yourself, my dear colleague, replied the Captain, they are a Latin race of little fellows. Can't you understand Latin?" "Go away, Captain," answered the Professor. "Tui generis, tui generis, ave generis bonum," howls the Captain. "Ave ave," howls Rubeus. "Ave ave" howls the Professor. "Ave ave," answered all the little winged men in chorus, at the same time approaching the *Aeriolus*, amiable and happy. Then they formed a procession and started to fly toward their City singing, their

voices being so harmonious and sweet that the occupants of the Aeriolus looked at one another in astonishment and over joyment.

CHAPTER V

The King's Guest

The Professor exclaimed. "Are those little fellows angels?" Is this world a paradise?

God be lauded," answered the Captain. Grateful, God, said Rubeus, what a fortune! The Captain landed the Aeriolus on the largest square, then opened the door and the occupants stepped out and began looking round and round, admiring the sublimity of the City and its enchanting surroundings. Several thousands of winged men from a blue sapphire rock house, roofed with purple diamond tiles, formed a line. The travelers were invited to pay a visit to their King and the strangers marched along the line of armed warriors and entered the house.

"What" captain, the King is a regular sized man without wings? "Man from Mother Earth," said Rubeus. "Good God, he is," answered the Captain.

The king on sighting the visitors diligently stepped toward them, grasping their hands and pronouncing an oratory worthy of Cicero. The king made a narrative story, telling them how he was blown up by a subterranean force in the year 79 A. D. while he was bathing in a grotto on Mount Vesuvius; also how he had instructed his little people in the new world to speak the Latin language. The Captain inquired as to the length of time the people on Planet Mars lived.

The king said. "The people on Mars live longer than

the eagle on Earth, which is 5000 years and sometimes longer.

Your Majesty, said the Captain, I beg to ask why Nature has made your people so beautiful. Their hair is bright like the fur on a seal; their wings are as pretty as the feathers on the paradise bird; their eyes are so luminous that when they bath they give the surrounding waters vari-colored scintillating lights, producing a phosphorescent effect on the water. Why, they are equipped with feathers on their wings, but the rest of their bodies consists of skin similar to ours. Why they all look young and their teeth shine like diamonds.

“God’s gift, nature’s gift.” Answered the King. Look up in the sky, Captain, and tell me how large your Mother Earth appears, continued the King. The Captain looked up through the blue sapphire roof and said.

“Mother Earth appears to be as large as a pea.” “Very well, now ask one of my men to look at the Earth and tell you how large it appears to him.”

A close-by Martian was asked to look at the Earth, and he replied. “Planet Earth looks to me to be as large as this house.

“Wonderful long eye-sight,” answered the Captain.

“Not only can my people see at an extreme long distance, but they can see through your body,” exclaimed the King.

“They have x-ray eyes,” said Rubeus.

“Wonderful gift, said the Professor.

The birds in the air, the animals in the forest and the fish in the water also have strong eye-sight and luminous

at night," continued the King.

"By Jove, Captain our fire-flies on Mother Earth must have strong eye-sight," said the Professor.

"Keep silent," they are too small answered the Captain. "Yes, but" grumbled the Professor.

"Now take a look through the window, my dear terrestrial friends and you shall see our nymphs," continued the King. "Those creatures are our inferior race, the same as your terrestrial negroes. Nature has not given them feathers on their wings and the fingers on their hands and the toes on their feet are webbed together just the same as your terrestrial bats. They can talk, sing swim and fly, and when they go on a high journey they make use of a large dry fish, resembling a bladder and anti gravitation shoes soon disappearing from sight. At times they return, after having been gone months and relate to us strange things which they have seen in other worlds." "By Jove, Captain, said the Professor, I once saw one of these creatures in the Museum of Nevada. I believe that, answered Rubeus, very enthusiastically. I saw a document in the Museum of the Geographical Society of Paris and also read about it in the Bulletin of the Geographical Society of Milan, such creatures were seen by Duminicus Ducier, a French Monk of the Abbey of Besancon, in the Fourteenth Century, and this fact was printed in provincial dialect. I have a copy in my note book; let me read it to you. "Dominicus Docier, monaco, di Domremy, studioso di antiche scripture di soa collectione disegnoe un mappamundu coa parte rotta dile acqua dil diluviu et termoti, dicta parte rotta troveo logo a molta distanza nil

mare oceanus predicto da illa insula Tullia Major et da dicta et insula Tullia minor. Havi foresta di erbe marem habitata da uccelli con cocuzzo come homo, capeli, ohi, horechi, naso, bucca co denti, co ali come scorpion et gambe come rane, no corpu. Dicto parla, canta, vola et nota, dicto va in delirio nil vidi marinai co nere vesti. ect; Vidi cronaca di Besancon di Sancta madre chixia; dil, 20 majo. 1439. Plublished, Milan, September 1st 1907. I wonder if they were these same creatures," exclaimed the Captain. These Martian aborigins have another way of reaching the other worlds, continued the King. All our drinking pitchers are made by them. They also make things for their own use. They make a load-stone mud shell, which is dried hard. The shell is made with a door. The aborigin locks himself up in this shell and is carried by his companions to the summit of a mountain, where there is a crater. They then fit the shell over the crater and wait for the current of air to blow it up. When the current reaches the crater the shell is blown up with such force that it passes into space, and as loadstone is a strong magnet the shell is pulled by magnetic attraction of some other Planet, and then our Martian aborigin travels over land and sea hunting for his preferred birds and fish and especially little grapes that grow on fugus natans (sea-weed,) of which he is very fond. The fish-skin bag is always carried by him and he makes use of it whenever he wishes to return to Mother Mars. "Now my dear terrestrial friends" continued the King, "step back into my dining room and have supper with me. Be seated on those red diamond long benches, as the ruby tables have been prepared with our

food. I hope you will like it, said the King, smiling. "Very delicious, very delicious, very delicious," answered the terrestrials. God, this is a paradise of food, exclaimed the Professor. Some flavor, said Rubeus. "Extra good," answered the Captain. The Martian servants then served wine in large diamond mugs.

"Salute," said the King.

"Viva," answered the terrestrials.

"Very delicious," said the Captain. "Some wine," answered Rubeus and the Professor.

"Say, Captain, suppose we tell the King about prohibition on Mother Earth."

"Keep silent, Professor, you always with your Americanate. "Do you want to be thrown out of this Planet?" said the Captain seriously.

"No wonder that these people live to be thousands of years old," exclaimed Rubeus. "This food is extremely nourishing and immensely agreeable. Talk about our pineapples, our strawberries and our figs. Why, there is no comparison to this food, on Mother Earth," exclaimed the Captain.

"Talk about our olives-these are most delicious," said Rubeus.

This is our ground meat."

"Eat some of these mushrooms, my terrestrial friends.

"God, but these are excellent," answered the Captain.

You see all these things grow natural and in large abundance," repeated the King.

"Now my terrestrial friends, over there is your resting room, sleep well."

“Feather beds!” exclaimed the Professor. Good night all.

The Captain is soon sound asleep. He dreams and imagines he is having a wireless communication with Mother Earth. He first starts by picturing in his mind how to send a shell to the Earth, forcing it, to travel round and round in a dense stratus of etheric field in a grazing satellite. Then he would visualize systems comprising wireless apparatus and transmit the message on the antennas on land. The images he sees are perfectly real and tangible. Rubeus is dreaming of the Adam of the Earth paradise. The Professor dreams of the Angels flying with him to heaven.

The Professor awakes, raises his head, and says. “Captain, those little rascals are blowing the trumpet in the Aeriolus. Let us get up my worthy colleagues. It is day light, said the Captain.

The Professor opens the door, runs out to the square and cries. “What’s all this noise, eh?” The Martian’s fly away laughing.

“You little rascals, you-----,” continued the Professor, clapping his hands loudly.

“Professor don’t howl at those boys,” said the Captain seriously.

Rubeus examines the Aeriolus and says. “Nothing wrong with the Aeriolus.”

The Captain grasps the hand of his colleague and remarks. “My dear friends, nothing will give us greater pleasure than to try to telegraph to our people on Mother Earth.”

“Why should we not,” answered the colleagues.” Mars Radio Station, go away, Captain, what Mars? Mars of Egypt?”

“Oh, yes. How did you get up there? Bravo, Captain Inhabited? Men with wings? Bravo. Indeed----- Good God----- is that a fact? Diamond Cities? What? Possible?. Wonderful----- Veryplain, Captain. Yes. Go ahead,” God be with you. Good-bye.

When the Captain was busy telegraphing to Mother Earth a young prince arrived flying, carrying a note from the King. The Captain read it and said. “I should consider myself very fortunate to have the pleasure of taking his Majesty for a flight to the Ministry of Public Works out to Terra laboris.”

CHAPTER VI

Trip to South Continent

The prince then flew back to the royalpalace. Ten minutes later the King arrived, being carried in a wicker basket by twelve dignitaries, who were walking suspended in the air towards the Aeriolus.

“Your Majesty, it gives me great pleasure to be able to take a flight with you.”

Well, dear Captain, It will be necessary for one of my men to go along, as we will travel though foggy regions and my man can see many miles ahead through the fog.”

“Yes, your Majesty, your man shall be our pilot.” The Aeriolus is started to run at at a speed of 100 miles per hour.

It was two hours since it left Alba, the capitol. At eight o'clock a foggy region was reached, above a large lake.

The pilot pointed to the Southeast, where there was a large sea, connecting with the lake by several channels. The Professor promptly pointed the binocular towards the sea, but after a search, he grumbled. "That bird has x-ray eyes for sure. Half an hour later, when the Professor was still gazing into the distance with his glass in his hand, he remarked in a ringing voice! "Forest, forest! Flocks of curious monkeys, carrying small shovels, were seen working the ground of the marvelous fields of cultivated land near the forest. Innumerable flocks of birds were flying over these fields. Some of them had such beautiful feathers that the travelers exclaimed. "Nature loves this world better than ours!" The monkeys walked on their hind legs, and had wings like the terrestrial seal. Their fur was green and their heads were like our terrestrial cats, with long beards under their chins. The travelers were astonished when they looked at the fields and saw that the monkeys were cultivating the land. The Captain exclaims.

"Your Majesty, kindly tell us why those monkeys work the land?

"Ah, those monkeys are our slaves. They work for us. Look in the forest, there you will see my men in the tall trees, armed with bows and arrows, watching these monkeys."

"Yes, indeed," answered the Captain. Then your men do not work. "Yes, Captain, they work one hour each day with the exception of Sundays. Let us go direct to their factories, and I shall show you how they operate their machineries."

The Aeriolus was running fast. As the water in the

lake was cradling on the diamond gravels, the Professor takes a peep with the binocular and exclaimed. "Oh, you kid!"

Rubeus answered. "What is wrong with you, Professor Emmanuel? Ah, you see I thought I saw Professor Campbell, of Lick Observatory, grazing his forty inch telescope. No, by Jove, it is the Moon of Mars reflecting in the water. There are the other ones, Deimos and Phobos, just as our terrestrial Astronomers call them. They appear larger than the Moon that shines on Mother Earth."

"Perhaps the diamond gravel bed of the lake enlarges the Moons," answered Rubeus.

"Must be so," said the Professor. "Lightning! lightning!" exclaimed the Captain excitedly.

CHAPTER VII

The Aeriolus Deystroys porcupines with its Concave Glass

"No Captain. We are tormented by an invasion from the north of many thousands of toad porcupines. Their skin is hard, similar to that of the terrestrial crocodile. These swine chew up everything. My men are using a gun, shooting lightning on trajectory, but you know trajectory is a difficult problem, it kills but is very slow."

I ask your Majesty if the swine join in flocks."

"Yes, Captain, they usually flock by the thousands."

Will your Majesty allow me to destroy them?" "How can you worth, Captain?"

"Your Majesty will show me where the swine are and I will show you how quickly I can destroy them."

Very well Captain. Let us go direct to that large field. There they are, see, near that river. Oh, yes. Let us fly up forty-five miles and I will fix them."

After twenty minutes the Aeriolus reached the desired altitude. The sun was extremely hot.

"Now, your Majesty, look through the telescope." Do you see the swine?

Yes, Captain, I see them jumping and struggling. I see them in spasms! I see them roasting! they are dying! they are dying by the thousands! Well we will keep on spinning. After ten minutes! the King exclaimed.

"There isn't one pig left, they are all dead!"

The King grasped the hand of Captain Marchy and said. "I must praise you, worthy Captain, for having destroyed the enemy of my people.

This was the proper altitude for the Aeriolus to collect the rays of the sun in order to burn anything disturbing human generation on Mars. Directly North East lay the Campanian desert, resembling the western zone of the United States of America, covered with red sand. Everywhere on its surface showed ample oasis of cultivated land under eternal vegetation. A little to the East rose the Ausonia, the highest mountain in Terra Laboris, which revealed itself as a plain projecting eastward from the diamond coast enveloping the Marian Sea. Suddenly while the travelers were admiring the brilliancy of the mountain, which was sparkling its diamonds and rubies in the full blaze of the morning sun over the plain, an explosion attracted the immediate attention of the travelers. They instantly looked down and saw to their surprise that

hundred of cannons, in formed batteries, many miles apart, were firing.

“There is war!” cried the Captain.

“The enemy is marching toward the South!” cried the King. My armies are breaking up, no hope! no hope! They are moving their batteries toward the South, the ground is lost. I hope they will hold out until we get there!” answered the Captain. The Aeriolus began spinning directly for the battle-ground. The enemy had thousands of cannons.

“No hope!” cried the King.

“Never despair! Majesty,” cried the Captain solemnly directing the spinning glass of the Aeriolus down towards the enemy’s batteries.

A terrible explosion threw up an immense portion of ground and rocks into the air.

“The cannons are melting!” cried the King. The enemies are running! running! running! My victorious enemies are running, running, running! My victorious armies are celebrating the victory.”

“Hurrah for the King,” cheered the travelers.

The sensation of the occupants of the Aeriolus had now reached the highest pitch of exaltation. They felt like the old Romans conquering Gallia, for which they had been fighting for years. The king ordered them to fly toward the south for a resting place. Suddenly the Aeriolus in flying straight through the indicated place met some obstacles.

“Strange,” exclaimed the Captain.

“Turn north, Captain,” answered the King. “We

have reached 2000 miles from the war region. Here is the South Sea. There beneath us is constructed a ring around the equator, which floats freely in spinning motion by reactionary force, running our transportation and working machineries at the rate of one thousand miles an hour. You see the Aeriolus is effected by magnetic force of that enormous ring."

"This is a miracle of a discovery," answered the travelers, in astonishment.

The Aeriolus then begins to fly in a northerly direction. At last the King orders them to stop and descend. A large City, consisting of low and long-narrow diamond rock houses, is pointed out by the King. The Aeriolus landed on a large round square, twelve winged Martians approached the Aeriolus, carrying a chair. The King is seated and carried to the Ministry of Public Works. Two Martins approached the Aeriolus with a note from the King. The occupants of the Aeriolus march toward the hall of the Ministry and are met by the King and twenty winged men, who were from the Ministry of Public Works.

"Ave, ave," cheered all the Martians.

"Ave viva!" answered the Captain and his colleagues.

The King made a long commendation, which was answered by the Martians with an ovation and sympathetic admiration for the terrestrial visitors. A most delicious dinner was served, which consisted of oysters, frogs, mushrooms, olives, pineapples, like fruit, figs and other species of grapes and old wines. It was about one o'clock P. M. when the terrestrials had finished dinner and were taken to see the works. Suddenly the bell of the Aeriolus start-

ed to sound dreeeeeeee, Ah, ha! exclaimed the Captain rejoiced. He walked toward the Aeriolus, with telephone in his hand and opened the door.

“Yes, yes,” Captain Marchy. Yes, where are you? Planet Mars. This is the San Francisco Examiner. Yes. The Presidents of the Aviation Clubs of London, Paris, Rome, Madrid, Japan, Australia, Bonsaries, Mexico’ Montreal and New York. The Directors of the Observatories of Florence, Paris, Bourgas, London, Japan, Mount Wilson, Mount Lowell and Mount Hamilton (Lick) are already with telephones in their hands, waiting to hear you talk about your discovery on Mars. Will you kindly tell us something about it? All the newspaper Editors of the globe are ready to listen. The Editor of La Tribuna, il Mattino, il Corriere, il Messaggiere, Le Petit Parisian, Je so tut. Saint Paul Gazet, Berlin Zetung, New York American, the World, St. Louis Globe, Star, San Francisco Chronicle, Call, Tribune, San Jose Mercury and every other paper on Mother Earth. Captain Marchy answered.

“Gentlemen,” the Aeriolus reached Planet Mars in 4 minutes and 21 seconds, travelling at the electric rate of 186,324 miles a second. This planet is an extremely beautiful world. Its mountains are composed of soft diamonds and its plains are fertile and cultivated. Its inhabitants are of supernatural beauty, resembling angels having wings. They live in small round topped diamond and ruby houses. The streets are paved with sapphire stones. The mountains are rocky diamonds and some of their slopes are rocky rubies, covered with eternal vegetation. The Praries are like our Western American deserts, resembling

California, but the oasis is often thousands of miles in extent, making fine natural pasture for great herds of domestic ox, resembling buffalo. The barrens are overgrown with forests of olives, chestnuts, very large oranges, figs and pineapples. The same pine and numerous growth of laurel, myrtle, pine and unknown plants. The plains are pineapples, overgrown with cypress, and many unknown plants. The region of the eastern continent consists of brilliant red clay, mixed with diamond sand. Connected with the same diamond rock formation is the bursting forth of numerous channels, appearing like eruptions of subterraneous streams, suddenly emerging from red labyrinthhs underneath, through which they have long crept. There are many cypress barrens, but among them are gentle eminences of fertility, supporting a vigorous growth of hickories and pine, while numerous streams flow through the country or expand into beautiful lakes. My colleagues have described the water in these canals and lakes as pellucid, that the nymphs seem swimming in the air and the stars in heaven shine with brilliancy greatly enlarged. Groves of very large roses cover immense tracts, bending beneath the weigt of their vivid yellow flowers, filling the air with perfume. All the fruits known and strange to us flourish here and their flavors are extremely excellent. All the animals have wings like terrestrial seals, but they do not fly. Birds are mostly similar to terrestrial pheasant. The aborigin people of the country are beautiful creatures, having wings like terrestrial bats, capable of invincible swift flight. The climate is similar to that of California and Italy. Cold at the poles. The Martians run their fact-

ories by perpetual motion, but work only one hour each day with the exception of Sundays. They speak a universal language and are very friendly. The Martians had a war, but I settled it. They live to a great age, 5000 years and sometimes longer. I will return to Mother Earth within a few day, making the trip in 4 minutes and 21 seconds." "Bravo, viva, hurrah," answered they, Professor Emanuel and Rubeus approached the Aeriolus with some anxiety. Captain Marchy promptly saluted his colleagues, announcing to them that radio telegraphy had encircled Mother Earth and that wireless communications had been received at the Aeriolus from all parts of the terrestrial globe, from Italy, Japan, Australia, Argentine, Brazil, the United States Canada, Russia, Norway, England, Germany, Austria, France, Spain, Portugal, Egypt, Persia, India and China.

Viva, viva! the Aeriolus," answered the Professor and Rubeus enthusiastically, being elated over the fact that news had been received from all over Mother Earth.

"Captain Marchy," continued the Professor, let us fly upwards about one mile. I am anxious to view the physical transportation of magnetized barrels, carrying the products of the country from north to south 2000 miles on the canal's current, and the products of south to north on the other canal's stream. The Captain started spinning. Ah! exclaimed Rubeus, there they are! A chain of barrels, 2000 miles long, is seen going forward and back in a never ending line. "What," those birds have utilized the canal's current as conductor of food stuff, said the Professor, looking down attently. "Why," that magnetic transportation scheme of carrying products from New Orleans to Cadiz in

Spain could be accomplished on the Gulf Stream, answered Rubeus."

"Yes," grumbled the Captain. "You talk to those people down there."

"Look, look, exclaimed the Professor, pointing to the summit of a hill. Do you see the diamond shower blowing out from that volcano?"

"Ah ha! exclaimed Rubeus. "Captain Marchy we shall get up as high as the jet." Very well, my good colleagues, hold on to your telescopes. One hundred miles, one thousand miles, ten thousand miles. Let us fly back, my good colleagues, as there is no end to the jet. The shower is striking Mother Earth, Captain, don't you see it?"

CHAPTER VIII

The Terrestrial Travelers are Invited to the Observation Tower.

Yes, my worthy colleagues, they fall in South Africa on the same spot. There seems to be a strong pull for the diamonds. Must be so. Terra firma, my good colleagues, let us go to the Ministry of Public Works. I have an idea. I shall see if I can work it out here. The Chief Engineer is then approached by the Captain and the drawings are showed. He simply states.

"I will get these things out in five days."

However, he appears to be very much surprised. On the following night, after the usual banquet, the State's famous Astronomer invited the guests to the Observatory.

The party walked through a cavern at the foot of a mountain. A soft, purple light mysteriously envelops the visitors, coloring the walls with a magic purple from which thousands of ruby stalactites hang from its vaults. A square then appears, imprisoned by a circle of walls, measuring 20 feet in circumference and 1000 feet high. The tower, elevating horizontally grew into a black diamond, vaulted smoothly, having the shape of an immense telescope. At the summit was a white diamond disc. The heavens appeared to the visitors beautiful beyond description as viewed through the huge telescope.

The mighty Planet Jupiter came into view in the direction of the telescope, presenting a spectacle such as the eyes of the observers had never been privileged to behold. The huge globe, ninety thousand miles in equatorial diameter, was equal in mass to three hundred planets such as our own globe. The huge ball glided rapidly but majestically onward through the sky, showing beautiful red, brown and yellow shades of color. Jupiter presented itself and was a world as different from our own as it is possible to imagine. Surface crust appeared with an immense flattened region. Then mountains of considerable elevation came into view, extending as rings round and round the planet, enclosing large canals of crystallized water, forming currents of incredible speed. All in constant flux changed color under the silvery radiance and surpassing brilliancy of the sun's rays. From the Observatory, Jupiter, at first glance, strongly reminded the observers of streams of Norway on Mother Earth. A second glance, however, showed Jupiter had cultivated land, and on

a third glance Jupiter was seen to have large cities built of Gothic architecture. Every house appeared to be constructed with several towers, adorned with innumerable statues.

The observers gave a sigh of regret, mixed with a generous amount of surprise. Too bad those mountains, streams and beautiful cities were not distinguishable from Mother Earth, they complained. It reminded the Professor of the cathedral of Milan.

"If I did not know where I was," he declared, "I would be endeavoring to locate Milan right there."

Rubeus smiled tolerantly. He had spent his young days in Rome and he felt sure, he obligingly told his colleagues, that this large city was more like Rome than Milan owing to the number of statues adorning the building. This he said frankly, which made the Captain laugh loudly. He pointed toward a region west of that which they were observing and gave an exclamation of surprise.

"It is just like the hills in Latium, the valley of the Sacco River, surrounded by low hills." "Do you see anything like people?" Good colleagues, asked the Captain. Rubeus inquired:

"Where are they." The Captain pointed to that part of the valley, which laid at the foot of the hills.

"By Jove," answered the Professor, "that is a procession of giant people." Rubeus strained his eyes to see.

"Well, declared he, that is a procession and a long one too. Talk about our giants on Mother Earth, they seem to be about 14 feet by 200 inches abreast."

"Exactly," answered the Professor. Our Astronomers

on the Earth have gone into Geology business with their prehistoric animals and I haven't seen a thern' snake or Brontasaurus to fear in this and the other world. Darwin surely had a picnic when he claimed the derivation of man from monkey. Boys and girls there, boys and girls here and boys and girls over on Jupiter, that is all. Professor, let us take a ride up to Jupiter."

"Why, Rubeus, those people are too big for us, we would get licked. Do you know how we would look when we reached there? We would look like five year old boys. You don't want those people to play foot ball with us, do you?"

"No, sure not,"

"Well then keep silent."

"Well don't get excited, Professor, you see that girl looking at you? Let her look, perhaps she loves me."

"Love you, you bald-head." I told you to keep silent, didn't I? "Yes."

Well, hush, then!"

"Oh you kid!"

"What's going on boys?"

"Oh, nothing, Captain, we are just joking!"

"Well, my terrestrial visitors, how does this giant globe appear on your planet?" asked the Astronomer. "Answer that, Professor," whispered Rubeus with a smile. "Yes, I shall answer that pretty quick. "Worthy Doctor, said the Professor, it is believed that the density of Jupiter averages about the same as the density of the sun. It is assumed from these facts that Jupiter is largely in a gaseous condition; but it is known that it possesses dense atmos-

phere and in spite of its huge size rotates on its axes with great rapidity. On account of this gaseous condition, life on this planet is believed to be impossible. "Why gaseous condition?" asked the Astronomer. It is an illusion of the planet's four moons, shining powerfully on the planet that gives you such an appearance. Well then, how does Planet Venus appear on your globe? Planet Venus is more visible. It shows mountains, oceans and rivers. It is believed from these facts that vegetation and life is possible. Look, look, Jupiter is gone—there are two moons, exclaimed Rubeus. Well my worthy terrestrial visitors we shall take a glance at Venus at one o'clock.

Six hours were spent in walking along the luminous and enchanting grotto, admiring the wonders of nature. Suddenly the Astronomer announced that Planet, Venus, was in a position of observation. The party were seated. Venus Venus, exclaimed the Captain. Magnificent, great, answered the colleagues.

A most striking structure of columnar shining rocks was seen, crystallized into prisms several hundred feet in height, standing perpendicularly and presenting a picturesque appearance such as castles bathed by the flux of the waves of the sea upon the flanks of this sharp ascent and abrupt precipice. Elevated mountain ranges were seen, while a large river appeared snugly locked in the valley, formed by other mountains. A second valley, at the foot of a lofty mountain is seen, which is covered with eternal vegetation.

Suddenly herds of thousands of Rangifer Tarantus are seen running toward a lake. Look, look, exclaimed Rubeus,

herds of cariboes. By Jove, said the Professor, men are running after them on camelopard's backs! Gee! those giraffes can run, can't they, answered Rubeus. Men! men like us! exclaimed the Captain. Yes, they are dressed in nice fur armed with spears.

One of the best gateways to another valley is seen, which greets the observers as with a smile, peacefully resting by its lovely lake. There appears a curious city. From the roof of the houses rise many beautiful towers of different forms, crowned with cupolas, resembling the turbans of terrestrial Oriental giants. The effect of its coloring could hardly be exaggerated. It is painted in all the colors of the rainbow, and its cupolas either sparkle with gold or shine with brightly tinted tiles. Thus purple, orange, red, violet, green, blue, gold and silver are strangely blended here in one picturesque mass, like fantastic castles made of prisms. Its pretty river is crossed by arch-bridges, adorned with numerous statues

One of the mountains, which almost casts its shadow on the town itself, is about 5,000 feet in height, appearing very harsh, cold and univiting, yet in reality containing ten hills, or mountain meadows, upon which graze several thousand head of blue fured sheep. The valley showed a natural and wonderfully fertile productive plain, blessed with charming climate and delightful scenery. Another ridge of mountains encircles another valley.

This is the rainy season in the southern country. The dense forests in this valley are in a mass of vapor, which envelopes people in suffocating warmth, rivalling a Turkish bath as a perspiration producer.

Under the thick foliage of this wood, a world of giant birds are seen flying from branch to branch, being magnificent birds of all colors, brilliant azure, green, black, purple and the finest of red colors. The disposition of their long feathers obliged them to fly at a height of thousands of feet against the wind. "Look, look," exclaimed Rubeus, with a surprised emotion. Those ostrich birds are carrying young Venisians for a flight. What is wrong with your eyes, Rubeus, "X-ray," answered the Professor, "Can't you see them," Professor? Look at the top of those tall pines over there. By Jove, those lads surely hold on to their bridles. Those birds are domestic fowls, said the Professor. Their undulating flight, graceful aerial curves and the shading of their colors attracted and charmed the observers, and their obedience to their young Venian Masters produced a great impression on them, and they exclaimed. "This is the most magnificent spectacle." The birds, carrying these young Venians on their backs, at a height of thousands of feet, bring in view distinctly the features of the Venians, which were striking similar to our boys on our Earth. In this southern region they were nude, showing a genteel white skin, perfect form, beautiful features, with long wavy black hair and brilliant black eyes.

Suddenly the Professor gave an exclamation of wonder, looking toward a position west of the valley. At first it was hard to see. Then, little by little, there unfolded before their eyes a balloon in a very high latitude, in an almost direct line with their giant telescope. The balloon proved to be a huge hide bag, adjusted with two long cylinders,

lateral-positioned, two minor ones connecting and a larger central one with a strange motor. The whole thing proved to be either, or aerial electricity, sucked by the side cylinders feeding the motor. The central one serving to suck the air and the minor ones carrying compressed air, thereby enabling the occupants to steer the machine. Captain Marchy said the other day that the air, surrounding a planet, is chuck full of electricity, which Marconi uses for his wireless telegraphy and the Venians have adopted it to run their dirigibles. "Viva the Venians! by Jove!" exclaimed the Professor, immensely surprised. I wonder if the Venians are taking a trip to Mars like we did, said Rubeus. They are not, answered the Captain. They cannot get higher than 45 miles, because the sun would burn the balloon. Perhaps they have a metallic torpedo like aeroplanes for that purpose, adjusted with cooling gelatine like our Aeriolus.

"Well, they have not yet reached Mars or Mother Earth," answered the Professor. "Viva the Aeriolus then!" said the Captain. Viva, viva, cried the colleagues. Venus beneath them begins to show dense clouds, and further vision is then cut off.

In one hour the satellite of the earth will be in view also your planet earth. You will be able to see people in both planet and satellite. What! people in the moon? Dont you think so Proffessor? "No I do not Doctor," the sun does not heat the moon like the earth, there is no air. "There is not such extinction of light, the whole heavens is one blaze of solar light, the universe is infinite there is no direction in space in which the visual ray does not

encounter a star, light is material, sunlight exerts a pressure of many thousand tons upon the surface of the planets, this is termed the pressure of light, light ray is deflected in a gravitational field, it is material, it reaches with the same heat and light as on this planet everywhere."

"How and thru which agency does the sun derive all this heat Doctor?" Why, Professor, the sun is a radium planet. It may be, but radium is disproved by the spectroscope. It may be disproved by your spectroscope for the reason that other chemical elements contained in the sun absorbs the radium. That settles the whole question Doctor, I believe with you, the instruments we have up there in the earth are inadequate, they do not detect things like your instruments. That vegetation and life exist on the moon is impossible Why, Professor? Why, Doctor, no heavy gases can be detected in the moon. Gases exist in considerable quantities in the moon, carbon dioxide and water vapor so essential to the growth of organism exist in deep land and the people there have built ring-plains and profit by this system. Have built ring-plains? Yes, ring-plains. "Listen, Captain, ant-hills." What kind of people are there? Why, Professor, have you not seen the walls of China? Yes. Well, who built them? People on the earth. Well, people in the moon built ring-plains, that settles it. Captain, if active volcanic vents do exist on the moon as Maggini observed in 1916, there is a source of supply of carbon dioxide and water vapor for the growth of lunar organism in low-lying regions. Certainly, Rubeus, the walled plains, serve to mitigate the extremes of heat and cold at closed levels. The blanketing effect of the

carbon dioxide and vapor in our own atmosphere is well known as agency to modify extremes of temperature, the perpetual mantle of snow of the high plateaus of the moon like on the Alps of the earth is modified by the walls, some 65 miles wide and some as wide as 100 miles. Why then, Jule Verne thought that the moon was a death world? My good friend Rubeus, that great french novelist was a student of Flammarion's popular astronomy, Telescopes at that time were of limited sizes but, at the present time we possess telescopes as large as 100 inches and our American popular Astronomer Isabel Lewis points out modern discoveries. "Yes, Captain, I have often read her popular Astronomy on the Science and Inventions, "you read them often do you?" "I read them over and over again, too bad that Magazine does not come out weekly, I prefer to read that paper than to eat. "So do I!," "Good for you Professor!"

The Satellite of planet Earth is now in view, "my good visitors, look in the reflector, as your satellite always present the same side to Mars as our Earth, our telescope is now adjusted to invert the disc of the moon, "you can see it upside down. There is a landscape at the base of the mountain ranges. "Desolated valley, "Captain, desolated valley! "No vegetation whatever!" So it appears to you Rubeus. "Rubeus is telling the truth Captain that is the valley of death! "Cold Planet," death world! "What a terrible scene those rugged mountains!" Mercy, Domines, Domine! "You seem to be terrorized Professor." Am I not Doctor? "Be calm my dear Earth visitors," look down deep in that walled plain, you will see something. "What



The Earth, the Moon and its inhabitants as seen from planet Mars through a huge telescope.

walled plain, that is a great crater! "Good God!" I see cultivated land in that crater, "no it is not a crater, it is a walled plain. "How wide is that plain Doctor?" 65 miles wide Captain, "oh, yes, that is the Albatagnius." Look the caverns in side of the wall. "Where Captain?" Look way down deep. "By Jove," I see little men sliding up and down the walls, side way, head down feet upward any ways. "Yes, Professor I can see them even raise big rockes way up to the top of the ream of the wall with a small instrument. "Well Rubeus you have gained martian X ray eye-sight. "You can't see him eh?" Go way Rubeus "Why, Professor," can't you see that man raising that mass up on that wall?" Well the little rascal! If that don't beat anything I ever saw! "That's suspended gravitation for you Professor!" Is'nt though? "They wear fur clothes don't they?" Yes, lion hairy clothes. "They are a sort of beautiful creatures are they not Captain? Yes Rubeus, "they look like our terrestrian youths." Look the whitish skin! "Doctor, how old you think that boy is?" Boy? "Why Captain, he is one thousand years old." How do you know Doctor? "By telepathy." How do they live such a long life?" There is more carbon dioxide in the air and water in the moon, the effect of such chemical substances prolong human life, don't you know?" Do they feel by telepathy as you do?" Certainly they do." now, smoke that in your pipe Professor. "Silence you, you devil! "What's going on, boys? "Oh, this devil here! "Rubeus, can't you behave? "Excues me Captain," "I" What is it? "I am joking, that's all. "Doctor, do you think that the people in the moon can produce sufficient

crop in that round valley for yearly food?" Certainly Captain. "Besides the enormous crop, there are fish in abundance in the oceans and water birds to supply your planet earth." Now look at that adjoining walled plain, "Yes that's Hiparchus," well, that is 100 miles wide. "Do you see the people come out of their caverns? "Yes, by the hundreds. "See how busy they go about their affair?" "By Jove the rascals walk suspended in the air. "Sure, they wear anti-graitation shoes like us here in Mars." "Doctor, who makes anti-gravitation shoes here in Mars." There is the shoemaker. "Who that big monkey over there?" "Yes." Well, boss, will you make me a pair of anti-gravitation shoes, so when I return to mother earth, my wife can see me walk suspended in the air and think I have turned into a devil. Warrow, rooowa. "What devil of talk do you call that?" "Domine Emanuel," he is asking you who makes shoes in your planet. Why, Lyvia, do you understand the language of that monkey? "Yes Domine, I can feel it." Feel it? How? "By telepathy, well, I'll be switched." Rubeus, what do you think of that? "If I stay in this planet a little longer I will be able to feel it too." Next is another walled valley 115 miles wide.

"That must be Ptolemaeus, the great walled plain." Look at all the people down in that round valley, "they are having a picnic, are they not Doctor? "It seems that way." "Gee, I wish I could fly down there." You don't think you are growing wings, do you professor? "Well, are you Rubeus?" "No," silence then.

See, to the northwest of this ring plain is a deep lunar

valley about 80 miles long, and in places 10 miles wide South from Ptolemaeus extends a long chain of great walled plains reaching to the southern border. There are ring plains and craters. "Where is the 50 miles walled plain Doctor?" There it is, wait I will adjust the reflector Captain, "there it is now, how does it appear to you?" "Wonderful," that's what we call Copernicus 50 miles of ring plains." Look at the fertility of that round valley, there must be all kinds of fruit and gardens. Look at the water fountains. By Jove, Rubeus there is a martian girl flying around the ream of that wall, "what an angel!" Here, Professor, this is Syrena reflecting in the glass, "where is your head?" Why, is that you Syrena, God bless you, how happy I am that you have not departed from my side. I thank you Domine, I shall remain with you. "Isn't she the most graceful creature Rubeus?" Do you like her? "Do I?" Too bad she is so young. Young yes, she only made 500 nests. "Is that all?" That's all." Why how old do you think she is? Oh, about 3000 years old. Why, my wife in mother earth in only forty, and is full of wrinkles. "My wife lost all her teeth." Is she getting gray to? I hate to tell you. Ha, ha, ha ha—

"What's the matter Captain, you seem to be somewhat disturbed." "Oh! my colleagues are acting foolish." "Why, Captain, they are getting younger," naturally, the effect of younger age makes them feel extremely happy." "What!" Your Majesty telling me they are getting younger!" "Certainly so, Captain." "Why, what makes that?" "The the difference in the atmosphere, don't you know there is more Carbon dioxide in Mars than there is

in your planet earth." "The air we breathe, the water we drink here renew and prolong life." "What!" Is that why your Majesty is keeping young? How old do I appear to you Captain?" "Oh, about twenty." Well, I was forty when I departed from planet earth 1846 years ago.

Has your Majesty ever been married? "Not yet Captain, but I am engaged to Vergil's old girl from Cumae."

The Captain did not want to be inquisitive but did not comprehend the meaning for a Virgil who lived on mother earth some 2000 years ago and whose girl, according with the Historian Freccia, was the Sibil of Cumae who had been dead nearly 2000 years. As Roman names were comon throught Mars, the Captain passed over the subject but was quite unsatisfied.

"Your Majesty can tell me the names of the two principal channels running through this beautiful planet?"

"Captain, my people give them many names, but I would be glad to give them some good terrestrial names if you will propose them and my order shall remain."

"How would it be to call them Schiapparelli?" "Who is he, an Italian?" "Yes, your Majesty." "Very well Captain, Schiapparelli Channels shall remain." Captain, the small Island on the shore of this Observatory Hill is furrowed by three small rivers have you any good names for them? "Yes, I have your Majesty, Flamarion is one."

Who is he a Gallian? "Yes, your Majesty he is a French Astronomer." "Very well, Captain, Flamarion shall remain, and the second and third are Pickering and Lowell." "Who are they Captain?" Your Majesty they are two American Astronomers. "Is America a new

country?" "Yes your Majesty, it was discovered by an Italian after you departed, it is situated on the western hemisphere." "Oh, yes, the land of my friend Seneca, a big continent on the western part of the earth, there was an Egyptian and Etruscan emigration to that country, in early times, but they must have perished because it was extremely hot on the southern part and cold on the northern part of that gold country." Is it not Captain? "Not as bad as you Romans thought at that time your Majesty." "Why, Captain, Seneca thought it was a good temperature there, very fertile and rich in gold."

So, you wish to name the other two rivers Pickering and Lowell, do you Captain? "Yes your Majesty, very well then, Pickering and Lowell shall remain." Now, your Majesty will you let me name the Island? "Sure Captain, Isabel Lewis. Who is she, an American Astronomer?" "Good, Lewis shall remain."

"Say boss, do you wish to know who makes shoes in our planet." "Men like us." You know why? "Because according with Darwin's doctrine, the monkey is the ancestor of man, consequently man does the work and monkey's stay at rest." "He is respected there, don't you see." "Monkey's admirers over there, place us in prison if we make a monkey do the work." Isn't that the fact Rubeus? "Yes, you bet, ha, ha, ha—

All off for the Moon."

The Earth is now visible my good terrestrial visitors. look at the earth. "Africa! cried Rubeus." "South America! cried the Professor." "North America! cried the Captain." Hurrah, for them all. Hurrah! hurrah! hurrah,

as they looked at the different countries, there was Africa, south and north America, undulated by the ocean. The substratum of the countries showed mountains and plains with numerous streams emerging from dark labyrinths flowing into beautiful lakes which appeared so pellucid that the boats seemed floating in the air. Like children dance looking at a flying balloon, their enthusiasm had now reached the highest joy "Mother, sister, brother, friends, hurrah for you all." Good God, Rubeus! 45,000,000 miles off! "Bless me mother!" "Forgive me sister!" You are crying, Professor! "Why should'nt I, Rubeus." Captain is crying too! "You too." Forgive me wife! Ha! ha! ha—

"What devil you call that?" Syrena heard you asking pardon from your wife—ha! ha! ha—the devil she did. "Sure, don't you know that she can feel your language." "Didn't I make a fool of myself well enough—ha! ha! ha—" "That's enough now Rubeus."

"All off for the Earth." It is late, let us go to rest, said the Astronomer. The Captain and his colleagues took off their caps and bowed their heads in silent gratitude to the Astronomer, the King and his escort for their wonderful Astronomical observation. The shoemaker that had gone to the shop returned with three pair of shoes, and the terrestrial visitors were able to walk home suspended up in the air through the streets adorned with luminous flowering trees.

CHAPTER IX

Hunting Trip—Emerald Grotto—Artificial Rain
Luminus Flowers

It was ten o'clock that morning when the Captain, rubbing his eyes exclaimed. Let us get up, my good colleagues. All right Captain, they answered. I see the lovely plain of the forest, covered with fig trees, crops of various kinds, flocks of birds, etc. Let us go hunting for a change. Yes Captain, the King is desirous of seeing us joyful. On their way toward the Aeriolus, they were met by two escorts, carrying bows and arrows. In less than half an hour they reached the forest. Birds were seen flying all around. The King's servants arrived, loaded with provisions and twelve maidens, fire-keepers of the forest chapel, welcomed the terrestrials with the most enthusiastic cheers. The grotto of the Nymphs was entered. This great cave consisted of a lava-like mass at the base, with two ranges of red emerald columns resting upon it, which presented to the eye an appearance of regularity almost architectural, supporting an irregular ceiling of diamond rocks. This grotto was accessible by a narrow entrance but the landing was level. After a series of curvations, the travelers arrived at the Great Hall, the sides and roof of which were covered with immense incrustations of precious stones. The purity of the surrounding stone, and the thickness of the floor of the water stream, called by the terrestrial visitors la Seine, could deposit all mixtures, and gave to its stalactites a beautiful splendor. Tall

pillars stood in many places free, near each other, and single groups of stalagmites endeavored to prove from them the petrification nature in diamonds. Along the hallways and around the great hall were luminous plants, so called on account of the brilliancy of their leaves. They had all the singular properties that their leaves recede from shadow of human figure, human voice and human footstep. The humble sensitives instantly fell downward, as fastened by hinges. These plants all had winged leaves, each wing consisting of many small pinnae. The grotto was always illuminated by these beautiful plants, and the various colors produced by the hanging stalagmites of emerald is beyond imagination.

It was in this 5 mile wide grotto that the terrestrial travelers first observed there existed, in great abundance, on Mars a genus of fossils, emanating from the ground a vapor that becomes on fire in the air, burning with a redish flame in great splendor, but not burning one's skin. Be not surprised, said a beautiful Nymph, to Captain Marchy, if in our planet you should find trees producing luminous fruit. Examine this nut. Light is shut up in this shell, it will shine at night-time. The trees, which adorn our city squares, produce such luminous fruit in every season. Be not surprised, Captain, if in our planet you should find a way of boiling the water without fire, said another Nymph, with a graceful smile. What! exclaimed the terrestrial astonished." Yes yes, my terrestrial visitors, you know that there is an immense ring around the Equator. Well that same ring actionates on the metallic rings or fan-like circles adjusted in the wells of our houses and in the lakes



!A Martian girl at the fountain of youth.

and everywhere. The water has all the singular properties to develop heat when it is put under an energetic and continuous mechanical action. Whenever hot water is desired a valve is pressed. The ring strongly and uniformly agitates the water, which soon becomes tepid and gradually comes to boiling point. This is a systematic means of regulating temperature, besides what Nature adjusts itself. Wonderful planet, wonderful creatures, exclaimed the terrestrials. Worthy Prophetess, your knowledge is so interesting that one would believe in a paradise if you could locate it in some star in the infinite. "Well Captain, said the Nymph, with a smile." When you direct your prayers to the Creator, how long does it take you to get a reply? Thirty-five minutes, Nymph. Very well, human mind is electricity, is it not? Yes, Nymph. How long does it take for electricity to travel from your planet to another. From Earth to Jupiter, 35 minutes. There is Paradise Captain, in Jupiter. I believe with you worthy Prophetess. Jupiter has no seasons in our sense of the word, since his equator is inclined but little more than three degrees to his orbit.

Thus a perpetual spring reigns all over his surface. A planet under the condition of perpetual spring, which is usually the most pleasant portion of our year, leads to a state of things such as we may find so agreeable to eternal rest. What, Jupiter, a Paradise planet? Asked Rubeus with a sigh. Possible, said Professor Emanuel. Jupiter exceeds our earth 1,230 times in volume, and more than 300 times in mass. This magnificent orb was rightly selected by Astronomers as the crowning proof of the relative insignificance of the earth in the scale of creation.

Captain, they say on Mother Earth that a terrestrial on Mars could run faster than the best of our terrestrial athletes.

“Well, Rubeus, try to leap over that 12-foot emerald wall.”

“By Jove Captain, it is not easy.”

Now run.

How is this for speed?

“Slow.”

“Captain, here is the Nymph with some strange fruit.”

What kind is this, Professor?

“Captain, this fruit has butter enclosed in its shell.”

This is a very large nut, Nymph, as large as an orange on our Earth.

Try the juice on the bread.

Where is the bread. Why no, this is a melon.

Taste it.

Good God, this has the real taste of our terrestrial bread, and has the flavor of our best butter.

The light, emanating from the plants growing along the river Seine, produced a thousand charming varieties, playing in the joists of fantastic architecture of the grotto that were so vividly colored.

At last, after walking four hours, the terrestrial visitors entered into the forest that was enlivened by the songs and flight of a large number of pheasants; and under the thick foliage of this wood a world of those magnificent birds appeared. The travelers were attracted and charmed by the flight and graceful aerial curves and shading of colors of their feathers. Under the numerous shrubs

and trees that grew on the earth, and under their shadows, were massed real bushes of blossomed flowers, from which red and green little birds flew from branch to branch like a swarm of butterflies. It was an immense forest of enormous trees, united by garlands of elegant foliage, all adorned with red veil crape and luminous fruit. They passed freely under the high branches of the trees, lost in the shade of the crapes, while at their feet, jessamines, liles and violets formed a carpet of flowers of an indescribable beauty. They occupied, in this place, an emerald house surrounded by the lofty foliage of the forest. The little luminous fruit of the ferns threw over this transparent house little sparks, reflected by the emerald walls in violet, red, opaque, green and yellow tints. Under the transparent floor gold fish fled on all sides, while their retreat was thus being disturbed by the foot-steps.

“Look! look! exclaimed the Professor, that artesian well furnishes warm water.”

“Yes Signor, said the Nymph, every large house in this planet and the big grotto is heated by water from artesian wells.” “Most of the wells are 2000 feet deep.” “They furnish a steady temperature, fountains of boiling water are found everywhere.” “There is an immense spring in the North that is so hot that people cook their provisions in it.”

Look! look! that well out there throws up a column of white powder, there is another one throwing up a mingled white and redish powder to a height of 1000 feet.

That is an indication of fog and rain. Do you see the mass of clouds. Soon they will become condensed into

water and will fall in rain.

Yes, Nymph, but that powder cannot be magnesia. By Jove, I have a pocket Spectroscope. I shall detect the elements. Ah, those substances form magnesia. Citric acid, bicarbonate of soda. The elements dissolved into humidity of dense fog forms clouds of steamy vapor and soon fall in rain-drops.

“You see,” Signor, said the Nymph, whenever rain is desired, a valve is pressed, uncovering the metallic lid over the powder wells, and a tube, actioned by the equatorial motion, blows out the powder with more force and rain is so obtained. This means is adopted when fog is floating near the surface of the land. Ah, exclaimed the colleagues. That could be accomplished on the earth by disseminating magnesia powder on the fog with our aeroplanes. About ten minutes later a torrent of rain fell, and began violently beating like melodious music on the walls of the house. The sunlight produced a thousand charming varieties, shining through the transparent walls. The horizon grew lighter and lighter. After two hours of violent rain the terrestrial colleagues followed the Nymph into the forest. A carpet of flowers, emanating odors delicious and restoring, offered a journey in its blossoming meadows and bushes, which seemed to say “come along, come farther.” Birds got up from the bushes like butterflies. Charmed by the immensity of beautiful birds, five days passed rapidly away. On their departure, a world of pheasants, flying from branch to branch, under the thick foliage of the bushes, seemed to say. “Farewell, forget-me-not.”

About one mile off this charming wood an arch of huge rock, with its fantastic shape pillared, excited the imagination of the visitors. The formation of this huge rock is known as chondrules, oval-shaped, about the size of an orange, appearing in many varieties of stone, which are abundantly found in terrestrial rocks. The chondrules were so loosely embedded in the rock that they would fall away when scraped with a knife. According to Professor Emanuel's opinion the chondrules were originally molted drops, like fiery rain, and their internal structure depends on the conditions of cooling of the huge meteorite. There were white and red round marble stones, which are usually found in terrestrial soil. Rubeus was seen scraping, with unceasing activity, something resembling a bronze case. After half an hour of hard labor the case fell, the cap fell off and number of little silver coins were strewn on the ground. The presence of these coins strengthened the belief that the huge meteorite was a fragment of other worlds and such a world must have been the Earth at the time of the catastrophe. A Nymph, who was claimed to be 5000 years of age, was questioned on the subject. She stated that one day, when she was only a child, during a tempest, the rock fell, which produced a noise like the rattle of artillery and similar to the rumbling of thunder. One thousand years later, a dagger, bearing the Latin name of Caprys, was scraped out of the rock, bearing the effigy of a human head and a cross. Such is the effigy on these coins, exclaimed the terrestrials with enthusiasm.

"Etruscan coin," cried the Captain. This meteorite was blown out by the volcano of Roccamonfina, howled

the companions with astonishment.

The party returned, safe and joyful. In the engineer's office the Captain found two huge shells.

"Ah," cried the Captain, jumping up at the sight of his shells. The chief engineer approached the Captain with a smile.

"There are your shells," Captain. The Captain warmly grasped his hands. Conversation soon became interesting, principally to the interrogations, which the Captain and the engineer answered with great readiness.

Give us an explanation of the shells, Captain, cried the party.

CHAPTER X

Radio Telephony to the Antipodes of Mars

Captain Marchy answered. A new era that will cause the globe to be enveloped in radio oscillation is demonstrated in that shell invented by me. This invention actually brings true the dreams of our Earthly friends.

Marconi and Tesla, who have predicted that the day would come when wireless waives would encircle the globe. I have invented that shell equipped with a wireless transmitter, adjusted to a receiver. The shell is adjusted with a wire projecting through a hole as used on common radio transmitters. This shell, becoming a satellite of this globe, travelling round and round it for eternity, could be used as a transmitter to encircle this Planet Mars, governed by the etheric waves. The electro-magnetic gun, used by the Martians, is similar to the gun invented by our terrestrial friend, Professor Birkeland, and works by the equatorial

motion, thus offering the best facilitation for ejecting my shell on high trajectory into space.

Three cheers for Captain Marchy's invention. Hurrah! viva, bravo. "Let us try it, Captain," cried the party, enthusiastically.

"My 40 inch cannon is ready, Captain," said the chief engineer.

All right. Viva, bravo, answered his colleagues. The King and his escorts stepped out to the square desirous of seeing Captain Marchy's shell grazing as satellite round the globe Mars. Yourself in person should shoot it Captain. Look straight up my worthy friends—ready—Look, look, disappeared—no more! Shouted the King.

No, my good colleagues, take these two radio apparatus and carry them to the Aeriolus. The Aeriolus flies upwards 45 miles and in less than one minute reaches the antipodes of Planet Mars. Rubeus, you land here with your radio apparatus until we get back. "Yes, Captain." The Aeriolus is flying at the extreme west point of the globe Mars. Professor Emanuel, you shall land here with your radio apparatus. All right, Captain. Captain Marchy flies back to the place of departure and descends.

Now, your Majesty, chief, and Martian friends, if the shell was fired on proper trajectory it has by this time become a satellite of this globe of yours Mars. Look at the radio apparatus in the Aeriolus. Should it move. It is a success. Drrreeeee. Telegram. A message from Rubeus. Viva, ave. Rreeeee. A dispatch from Professor Emanuel. Viva, bravo. cried the Martians. Radio communications soon became exceedingly frequent during the whole day.

At sunset they took the Chief Engineer for a ride and they descended where Rubeus was sitting by his radio apparatus.

Well, my good colleague Rubeus, how did my messages reach you? Very clear, Captain. I think your invention is worthy of the 20th Century. Do you think so, Rubeus? Yes, I do worthy Captain. Let us go and get Professor Emanuel. The party then flew west and landed near the Professor. Well, my good colleague, were my dispatches clear? Yes, very clear Captain. You have certainly invented a satellite worthy of having around any inhabited world. Let us go back, my good colleagues, his Majesty is waiting for supper. The Aerilous landed at the square and was welcomed with loud cheers. During supper the Astronomer entered, announcing the discovery of a new Martian satellite, but when he was informed of the Captain's invention, he cried. "You have created a satellite." You are worthy of great consideration, Captain. God be with you. Thank you Doctor, and I now will ask you when is the best time to direct his Majesty's artillery toward Planet Earth. Artillery? Yes, one of your huge 40 inch canons. "Planet Earth is in full view early in the morning, answered the Astronomer." Very well. When is Planet Jupiter in full view? Planet Jupiter, having a force 316 times greater than Mars, this giant planet would arrest my magnetized projectile and in capturing it the Jupitians could telegraph to us and we would telegraph back to them. In this case, as said, the shell would not become a satellite of Jupiter, forced to travel round and round it, as it is magnetized, and would, therefore, be attracted by that giant

planet and naturally our cousins up there would at once press the button on the side of the projectile and the message would be received on our wireless station. Similar shells could be sent to Planet Venus, Neptune, Moon and other planets. The only difficulty would be the possibility of interplanetary communication by wireless telephony and telegraphy is the interpretation of languages. Interpretation of the languages? Interrupted the Astronomer. Why Captain, your worthy Sibyl of Cuma has been with us for thousands of years, and she can prophesy and foresee the complicated code called diversity of language, anticipating speech transmission, thoughts and ideas of dwellers, provided there are any in other planets. This Prophetess should be consulted on this great occasion. The terrestrial colleagues looked at one another in astonishment. The king interrupted, saying. Yes, my good colleagues and terrestrial visitors, my presence here is due to our Sibyl. My departure from Mother Earth was a frightful catastrophe, but my accension in the infinite was miraculously brought about by the divine hand of our Sibyl. The Sibyl introduced our Latin language here and it was universally learned and adopted. Whenever we consult her we never fail. My nativity was casual in the temple of the Sibyl and my mother offered her infant to the Sibyl. She has protected me ever since and I am in debt to her for my long life and my existance in this heavenly world. The Captain, with soul still excited from the emotion produced by the account of the King, was suddenly shaken by the exquisiteness of a woman entering the hall, followed by twelve young pages.

“Ave, ave,” cried all. *Laudem Sibylla,*” cried the King. “Ave, ave,” cried all. The Sibyl was soon seated on a high blue emerald chair, showing the most majestic exquisiteness of a terrestrial princess, but of supernatural beauty.

CHAPTER XI

The Sibyl Interpretates the Answer from Jupiter

Captain Marchy bowed and said. *Ave Sibylla*, do you know who I am? Yes, you are descended from the Rubeus family, principality of Parma and the late dukedom of Selve. You have the noble natural disposition of your ancestors and have created a new satellite, a satellite worthy of having in the infinite. At this moment you are thinking of communicating with the people in the Moon. There are few people there, as there is little atmosphere. Vegetation is just beginning and life is consequently commencing, but proceeding gradually. You must increase through birth in that planet, by pointing hundreds of huge cannons toward that planet and continue shooting hollow shells, loaded with magnesia, adjusted to burst up there, which will form nebula, or fog. The Moon then wrapped in this mass of atmosphere will cause vegetation and life to sprout up. At the present time human life up there is in its infancy, people are puppet-sized but are perfect human creatures dwelling in caverns. Animal life is small. Oak and pine trees are like herbs. You are thinking of shooting a projectile up into Jupiter. The projectile is loaded with a radio telephone apparatus and will communicate with the

giants of that huge planet. Do so, and if they answer I will interpret their language. Captain Marchy, encouraged by the Sibyl, steps out doors with the chief engineer and was followed by all the public. The Astronomer pointed at Jupiter and the Captain fired the shell. No roar was heard as the electro-magnetic gun produces no noise. After fifteen minutes the Aeriolus telephone started, Dreee. The telephone is ringing, many shouted, full of enthusiasm. Then Sibyl flew to the Aeriolus, followed by the Captain, the King and the public.

Well, who is this talking? Juvinus, the Astronomer of Fundis Observatory. Yes. What Planet is this? Planet Jupiter. We have received a shell and wish to learn from where it was sent. It was sent from the people of Planet Earth, who came to Planet Mars for a visit. Your language is similar to ours, how do you account for that? Yes, I speak your language, you bet I can. Well then, we can communicate with you every day. No you can not. Why? Because your planet will not be in direct line with our planet, consequently the electro-magnetic flush, between the two planets will cease. Why do electro-magnetic currents carry dispatches? They certainly do. We have tried to signal with Planet Earth time and time again, but we have never received any answer. Well can you locate the point on that planet where you have directed your signals? Yes, in a desert near the equator. Yes, I know, in a region called Brazil. Say, Doctor, what is the number of inhabitants on Jupiter? Five billions. It is ruled by several emperors and Kings, is it not? Yes. Very well, ring me up again next October, will you? Sure I will.

Good-bye. Farewell.

Captain, the Jupiters have made use of an electric current to communicate with you on Mother Earth. Yes, worthy Sibylla, we have noticed it, but were not able to answer it. Too bad, answered the Sibyl. Well, when you return to Planet Earth, as you are familiar with occultism, take five deep breaths and direct a mental communication visualizing me; then I will give you an inspiration of how to create an electrical current signal. Will you do that, Captain? Yes, my worthy Sibylla, I shall do so. "Worthy Prophetess., we read in Pulibius of your high knowledge concerning the spherocity of our planet Earth. "Did you really prophretize the rotundity of the earth in the same way that Galileo proved to be true nearly two thousand years after w ith the invention of his telescope?" "Certainly so, Captain." As the elements of matter of which the farthest star in the universe is composed are the same as those which makes up all worlds, the laws which govern this world of Mars govern all worlds. My account of the creation of all the worlds were inspired by the same creator who made the planet Earth.

The earth was at first in the darkness and deep in the infinite, far, far off from the sun, the earth was a frozen semisphere.

The hand of God uplifted the planet earth from darkness and cold. With the first motion of rotation under the sun's rays light appeared and at last heated. The original name of that planet was Opus. The Earth (Opus) had not yet attained the consistency to keep with raging between land and water, at last, Tules, a glowing star lashed into

fury by magnetic attraction, traveling at electromagnetic speed billions of miles. Tules running swiftly in the region of the syderal ocean furrowed by Saturn threw up along its journey intermittent massives of huge rocks from its tremulous body. Planet Saturn whos' rotation was as swiftly as a spin caused the thousands of rocks thrown by the trembling Tules to rotate ring-like, forming a circle of several thousands of moons shining as brilliantly as do now the moon on mother earth. As Tules continued to approach the syderal ocean floated by the earth, a time arrived when the atmosphere of the earth was not sufficient to support the clash of the falling star, thus a fierce conflict was raging between the atmosphere and the falling star. At last Tules triumphed, and the Atlantic ocean became the cradle of Tules. Hence, this enormous clash, dislocations were made. The earth, trembling terribly, huge crevices were opened, and the surface was furrowed with enormous clets and cracks, and torrents of water were poured in fiery floods running over the entire globe. Thus a struggle of the children of God was raging between life and death. Finally water triumphed and the flood became universal.

The unbroken extent of water between the western shores of Europe and Africa and East Indies, at last, Atlantis an isle which was situated between Spain and extended as far as Iceland, was swallowed by the waters and Tules rose from the bottom of the ocean.

One hundred lucky pair were saved in the hollows of trees closely tied together as a flat barge, floating on the water for many days following the flight of millions of

doves. At last the new world Tules was safely reached.

Hundreds of years had passed, news was spread quite widely in Egypt and Persia by the report that the new world presented a scene of sylvan beauty. The prominence of its mountains, the fragrance of its flowers and the abundance of its delicious fruit was phrased in the songs of some Persian Poets, and in Geography, the Etruscan masters named the new continent Columbae, which denoted (the land of the doves.)

“Worthy Prophetess,” my soul is still in vibration by the emotion produced by your heavenly inspired eloquence. “My astonishment dazzles the sentiment of my spirit and my mind finds no prompt words to express my fortunate moment to listen to your angelic devinities.” Allow, Prophetess the respect and devotion of my companions and my admiration. The origin of that part of mother earth and particularly the name given by the ancients to that new continent now called America, certainly pleases us immensley, because, some five hundred years ago, when that country was discovered, it should have been named Columbia after the dove name of Columbus. Infact, a lucky descended from one of the most distinguished Dukedom of Italy preserves the first map of that country bearing the name of Columbia Settentrionalis, Columbia Meridinalis and Terra dei Fiori.

We thank you worthy Prophetess, we thank you.

CHAPTER XII

Captain Marchy's New Projectile to return to Mother Earth.

Now your Majesty, worthy Sibylla, my able engineer and good public we shall take a trip to mother earth in a huge shell, made by the able chief engineer, provided the worthy Sibylla will press the button. Yes, Captain, I will press the button for you. How long before you will start

Captain, exclaimed the King. We will leave the Aeriolus here with your Majesty and shall return just as soon as the electric current is flushing in direction with Mars.

A screen was placed between the magnetic gun on the ground to nullify all gravitational effects by means of aerial ether. The metallic screen no longer acting like a sieve was unable to pass magnetic lines of force, but absorbed them.

What is that screen for, chief? Well, Captain, any object placed above the screen, no matter how high above it, will become weightless. It will have mass but no weight. Look this five ton weight lead ball, is suspended above the screen. Yes, it stays freely suspended. If the sun or other planets were overhead the ball would immediately rise skyward, due to the attraction of the sun or planet overhead. When the planet Earth is overhead the ball will rise by the attraction of the earth, but it can be stopped by another electrified screen, placed high like an umbrella. then the ball will stay readily suspended in mid-air. The current was gradually reduced, when the gravitation made itself felt again, and the lead ball settled down gracefully.

The public cried, "Farwell." The Captain and his companions entered the shell. The door was closed and the shell was placed at the breech of the 40 inch gun. The Sibyl pressed the button and the engineer raised his hand. "Look, look," said the Astronomer. Just in time, the earth is in direction with Mars. After four minutes the projectile descended at 40 miles from the surface of the earth, which was the region of the limit of the earth's atmosphere. There the aviators met air currents of such high velocity that they were not able to make use of their engine, instead they practically shut off the power and travelled at the air-speed of 25,000 miles in 24 hours.

CHAPTER XIII

25,000 Miles in 24 Hours by Traveling in the Air Current

By Jove, Captain, exclaimed the Professor, I cannot tell whether I am flying upside down, sideways, or in normal position. Very well, my brave colleagues, answered the Captain, we are housed with oxygen tanks and atmospheric compressor to survive the extremely rarefied atmosphere.

We are travelling on an air current, moving westward with the rotation of our Mother Globe, which has a speed of 1,000 miles an hour, thereby giving an opportunity of travelling around the earth in 24 hours and take a close view of our satellite. That's it, Captain, I am desirous of seeing our satellite in order to talk to her, answered Rubeus. Very well, said the Professor. Have you dropped the satellite high enough, Captain. Yes Rubeus, I dropped it

50 miles from the earth's surface, and I saw it travelling very rapidly with the earth's rotation. It will run around the earth about 17 times daily for eternity. As Rubeus watched our Mother Planet appeared, green with vegetation and gray with water, and the atmosphere looked cloudy. The Professor exclaimed. What is our Captain doing Rubeus? I think he is working out another invention. You see, there are a series of tubes externally exposed on the turret. The engineer made him a combination of concave mirrors, of various colors, for the sun's rays, in order to collect and direct the sun's beams from the earth to Mars for signal purposes. Each glass had a letter cut on its disc and the words were shown by a tact key like a typewriter. Well, Rubeus, I do not think that the rays can be switched back from earth to another planet. It vanishes very close to the transmitter. It will eh? Why don't you know that if it was not for the earth, which stops the sun's rays, they would shine on another Planet millions of miles from the earth? They would shine on Neptune, Venus and other planets? Yes. Well then, the concave glass stops the sun's rays. They collect them and direct them toward another planet. Yes, if that was possible, someone would have used them by this time. Why haven't they? Because they didn't know how to direct them. Now you are talking Professor.

Dreeeee, what is that talking? The Aeriolus Station. Is that you Captain Marchy directing these beams of various colored lights? Yes, who is this talking? The Sibyl. Oh, worthy Sibylla, I am very fortunate to be able to communicate with you way down here near mother Earth.

Captain, will you direct your signals 40 degrees toward the North Pole? There they will shine on the black diamond rock mountain and every one will be able to read your signal. By Jove, Captain, you have accomplished another interplanetary communication. I must congratulate you. So do I, Captain, answered Rubeus. I thank you my brave colleagues, said the Captain smiling.

CHAPTER XIV

Radio Telegraphy and Telephony Encircle the Globe

Dreeee. Hello, Hello, Labravecchia. Here, Professor, can you comprehend that language? Hello, what, Fiume? Well do you think that the King of Mars is going to help you to keep Fiume if the D'annunzio do not want to give it to you? Talk to him yourself, he has a telephone. What? You do eh? Go to hell. What is wrong, Professor? Well, Captain, this territorial claimer gets my goat.

Dreeeeee. Hello. The King of Mars? Ring him up, will you? Aeriolus Station, Aeriolus Station, Aeriolus Station. No. Aeriolus Station. No, no, no not that way, Aeriolus Station. Well say, I haven't much time to waste with you. Say, keep silent, or I will throw a meteor on your head. What is wrong now, Professor? Oh, that Ching is kicking about Shangtung, I am no thern' plenipotentiary for that Ching. Oh, you kid. Keep silent, Rubeus, I am angry with those antipodeans.

Dreeee. Hello, Hello, this is the senior of the Bourgas Observatory. Yes, Captain Marchy. What are those

beams of colored solar lights emerging from your flying machine toward Planet Mars? They are solar signals. How do they work? I have discovered a new stone, and it does part of the work. Bravo, Captain, when will you land? Well, Doctor, we are taking a trip around the earth, grazing round and round it like a satellite. We are using no motor. The aero is holding on its wings and is running by the air current, which is enormously strong up here, 18 miles high. We could fly by this air current for eternity as a satellite does, but you know, provition and oxygen does not last forever. We are only proving the possibility of flying around the earth, 25,000 miles, in 24 hours, that is all. At the same time, we are proving that at this height, radio energy can encircle the earth, and that the antennas are a thing of the past, as etheric waves surround the atmosphere, enveloping it in great abundance, and whatever you get down there are jets emerging from this dense stratum up here. Oh, you are navigating on the air current like mariners on the gulf-stream or ocean current, eh? That is it, Doctor, but on a current of much greater velocity.

Go ahead, Captain, and God bless you. It will be a good lesson for future aerial flights. Good-bye, Captain. Good-bye, Doctor. By the way, Captain, we saw a small satellite drop in the infinite about five hours ago. Have you seen it? Drop into space? Yes. Oh, my poor satellite is lost. Say, Doctor, in which direction did it fall? Toward Venus! Captain. What! Captain, our satellite is lost! exclaimed Rubeus in embarrassment. Lost? said the Professor displeased. Yes, lost, my good colleagues! I now acknowledge my mistake. At 50 miles it was out of

the earth's attraction. It was too high. If it would only reach Venus the atmosphere and the rotation of that planet would force it to become a satellite of Venus and if the Venians have a wireless apparatus they could make use of it for their central wireless station. Yes, that is so, answered the colleagues, afflicted by the loss.

Well, my worthy colleagues, let us eat some martian food and forget it. That is what I say, answered the Professor with a smile. This huge potato tastes like bread, does it not? Said Rubeus. Exactly, answered the colleagues. Here is some buffalo cheese. It tastes like our gorgonzola, does it not? Exactly, answered the colleagues. Here are some olives and some figs. Good for you Rubeus, said the Professor. Now, here is some wine. Salute, salute. It tastes like our good old chiandi, doesn't it? No, more like Barbera, answered the Professor. No, more like old California Zinfandel, answered the Captain smiling. Good eh? Answered Rubeus, lookout. Pastor Swiny may see you. The devil with that tipsy fellow, I will throw a meator over his head. Meteor eh? Answered Rubeus smiling. Yes, meteor, repeated the Professor laughing.

Well, Captain, suppose your satellite should reach Planet Venus and we could telegraph to her, how long would it take for the message to get there? Asked the Professor. The nearest of all heavenly bodies to the earth is the Moon, only 236,000 miles distant. Electricity travels at the rate of 186,324 miles per second. It would take a message $1\frac{1}{2}$ seconds to fly from the earth to the moon, to Venus 2 minutes 185 seconds, to Saturn 1 hour and 11 minutes, to

Uranus 2 hours and 32 minutes, to Neptune 4 hours 2 minutes, to Alpha Centauris 4 years, 4 months, 7 days 19 hours and 12 minutes. Captain, my friend Caproni's aeroplane can fly 200 miles an hour. Supposing there was air instead of vacuum between the earth and other heavenly bodies, and his machine would fly, never stopping day or night, how long would it take for the aeroplane to reach other worlds? Asked Rubeus. To reach the Moon from earth it would take 7 weeks; from the earth to Venus 14 years; to Mars 27 years; to Jupiter 222 years; to Saturn 452 years; to Uranus 963 years to Neptune 1539 years and to Alpha Centauri $14\frac{1}{2}$ million years. Well then, how long would it take for your Aeriolus to fly from the earth to other worlds. Good God, Rubeus, you should know that the Aeriolus does ~~not~~ fly outside of the air into vacuum. It runs by magnetic electrical pull, or planetary attraction, which minimum calculation is electric velocity, traveling at the rate of 186,324 miles a second. We made the trip from the earth to Mars in 4 minutes and 21 seconds. You know that should it be our desire to take a trip from here to the Moon it would take the Aeriolus $11\frac{1}{2}$ seconds; to Venus 2 minutes 185 seconds and way down to Neptune 4 hours 2 minutes. I hope you don't wish to go to Alpha-Centauri, do you? I will tell you where I would like to go Captain, answered Rubeus. I would like to go up to Eros, where I would be able to lift a locomotive and train, weighing 684,000 pounds. Yes, I too would like to do that; not up in Eros, however, but on mother earth, answered the Captain smiling. Rubeus wishes to be a giant, eh? Said the Professor laughing. Keep silen you, I have a right to talk,

haven't I? Oh, you kid—answered the Professor playfully.

Well, my brave colleagues, let us rest. It is nearly twelve o'clock. The whistling and roaring of the air current was not heard, and the travellers fell asleep.

The Captain was the first to awaken. Where are we? asked Rubeus. "Seems to me, Rubeus, we are five hours from the equator." What we have been asleep until 4 o'clock. Life condition up in this strong air current and density of etheric waves. The wind up here is ten times more violent than the most terrible hurricane, such state of things soon envelops one in sound sleep. By Jove, Captain, one of the windows is half open, said the Professor. You see, that is what caused it, answered the Captain.

Drreee, Hello, hello. Is this Captain Marchy? Yes Say, Captain, there is a terrible pestilence on the earth, called Spanish Influenza. The United States Government has offered One Million Dollars for the germ destroyer. What is used by the people of Mars? Why, the people of Mars do not suffer from any disease at all. The climate, the water they drink gives them a healthy life, and you know, they live very long lives. Whenever they get ill they take marshy sulphoric baths in sweat grottos. The use salt internally. I would suggest the grotto sudorifero of Monsulmano, near Lucca, Italy, and acqua di Montecantini, and acqua di Fiuggi, also acqua caltarelle of Teano. Too far off. Well then you shall have to die. Good-bye. By the way, Captain, when will you land? I don't know whether I will or not. Why? If you people down there are all sick, why should I land? Well you can't go back to Mars, Captain. Can't get back eh?

Dreeee, Hello, hello. Is this Captain Marchy? Yes. Say, Captain your solar photography transmissions are fine. Yes. Where did you see them? On the rocky mountains of Alaska. The images are colored beautifully and are very clear. This is a fine solar photography, Captain. Thank you, Good-bye.

The sun was now setting in the eastern sky. Five hours were spent in answering questions to different telephone calls from all parts of the globe. Finally the equator was reached. Well, my worthy colleagues, the circumference of the earth has been reached. We have travelled around it, having made the trip, grazing like a satellite, in less than 24 hours, covering a distance of 25,000 miles. From this height and in this calm region we can remain immovable, simply awaiting the moment when the earth, rotating underneath, should present a place on which we should wish to descend, as the atmospheric strata revolves with the earth. By Jove, I know where I would like to descend and that would be in Toscany, and in case I should get sick with the Spanish Influenza I could run to the grotto at Monsulmano and sweat it out. I would like to land in San Jose, California, in order to deliver my written story to my friend Marcianus Rossi, said the Captain. Before we select the place on which we wish to land it will be necessary for us to ascend beyond the earth's attraction continued the Captain. The motor was put in action for the first time, and the height of 30 miles was soon reached.

In this calm region the night was spent in reading the works of Flammarion, Lowell, Pickering, Schiaparelli, Capelli and the story of Wells. At five o'clock

in the morning Rubeus was the first to awaken. Captain, let us descend in Japan. Very well, Rubeus, answered the Captain, and in less than ten minutes the shell aeroplane landed in the public park at Tokio. The Aeronatic Club of Tokio offered the occupants of the projectile aeroplane a delicious banquet. Captain Marchy charged the Secretary of the Club with a fold, addressed to Marcianus Rossi at San Jose, California. The travellers returned to the shell aeroplane and started in a westerly direction for a second journey. The height of 18 miles was again reached. The whistling of the west-bound current was soon heard roaring violently and the 25,000 mile trip was again accomplished in 24 hours. When the equator was again reached, the Captain said. My worthy colleagues we have again encircled the globe. We have successfully travelled around the earth and have descended on its surface. Now, I am desirous of descending and returning to Planet Mars, not only to show the good Martians that we have kept our promise, but to try the device given me by the Martian Sibyl. Very well, Captain, but have you, worthy Captain, sent your mental message to her? Asked the Professor. Yes, I have communicated with the Sibyl and she answered favorably. That's it, Captain, said Rubeus. Why not descend to New York and let Professor Birkeland fire our projectile straight up to Mars with his electro-magnetic gun. Our shell, when once in space, would receive a powerful attraction by Mars and in reaching its atmosphere we could gracefully descend to the same place of departure. Next time, Professor, but now I shall try my equatorial motion. Are you both willing to go along

with me? Yes, yes. Good-bye terrestrial friends. Three cheers for the bullet aeroplane. Hurrah! hurrah! hurray! hurray.

Next morning all the newsboys on the earth were running and crying. "Extra! extra! all about the bullet aeroplane flying to Mars." People of all ages and conditions ran, pushing their way toward the newsboys. There was a general movement. All were running, elbowing one another. The crowds were increasing more and more in an effort to secure the papers. The news was printed in large type and the notices astonished everyone.

CHAPTER XV

Captain Marchy Melts, Turkish Warships and a German Submarine

While the news had reached the whole globe that the bullet aeroplane had returned to Mars, thousands of cities, slumbering under the darkness of night, were suddenly awakened by brilliant sunshine. Men, women and children, dancing with joy, gathered at the squares to shake hands. Music bands started to play. The streets, which had so lately been dark and empty, were crowded with people. Church bells suddenly caught the news and in a moment all the antipodes were bell ringing. Constantinople seemed a carnival city; people rushed from their houses into the streets and in their wildness had exchanged clothes. The husband would have the skirt of his wife, and the wife the pants of her husband. Others had slipped on a boot and a

sandal, or a wooden shoe and a slipper. A man would have on his wife's apron and the woman would have on her husband's coat; a boy would be wearing his father's pants and a man the knee breeches of his son. The asses were braying, the camels were roaring, roosters were crowing, dogs were barking and cats were mewling. Thousands of bats and millions of chatter bugs were flying. The chirping of the frogs in the marshes increased the joy of the antipodes, who were thanking Mahumet with folded arms for having turned night into day and winter into summer. In the excess of joy, an artillery division, consisting of 50 nine inch cannons was pointed on Artaxata in Armenia to massacre the Christians, suddenly a beam of light, descending from the horizon, shining like the blaze of a volcano's crater, was miracously directed over these vicious Turks, who quickly disbanded and got to their heels, crying for mercy. A few seconds later the 50 pieces of big cannons were seen melting in a heap of mushy lava like substance, emanating clouds of smoke. The bursting of the munitions was heard, with a terrific detonation, as far as Jerusalem. Then three warships were seen, steaming toward the scene of the disaster, when suddenly the beam of blaze was quickly directed from the horizon and a terrible explosion was heard and a heap of melting metal was seen elevating like an island of volcanic lava.

San Francisco appeared to be a city of wandering people. The news was brought to shore that a German submarine had been seen 300 miles off the Pacific Coast in an attack on a British ship. Suddenly a beam of light, shining from the horizon in full blaze, caused the ammunition to explode and the submarine was seen melting

like a heap of wax.

Bulletins were fastened on the windows of the California leading papers, announcing that the bullet aeroplane was still spinning round the Equator at the height of 50 miles, and that Captain Marchy was speaking by wireless telephone to the instructor of the baloon service of the War Department, who had ascended 29,500 feet, and who in turn was telephoning Captain Marchy's communication to the San Francisco papers. The communication read as follows. Professor Todd of Amherst, who attempted to get into communication with Planet Mars by ascending 22,000 feet, was under the pressure of the strong air currents, consequently his emission of electric waves encountered cyclone air current at a height of 40 miles and was perturbed.

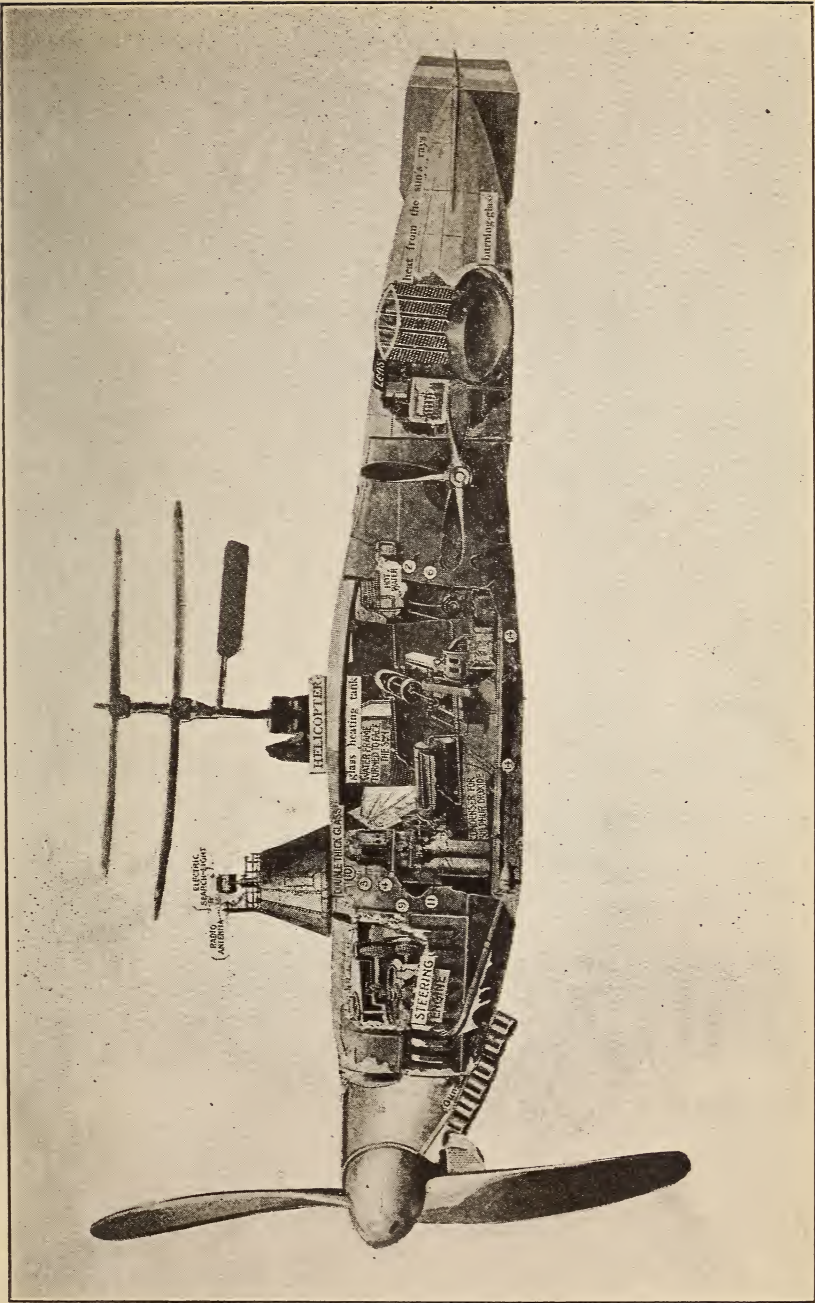
Many other bulletins were fastened on the windows. This time the announcement was quickly repeated by the Italian, French and Spanish papers of the Latin quarter, under the captions SHALL WE ENJOY SUMMER CLIMATE IN THE WINTER SEASON? Captain Marchy's sun blaze marks the nullity of the submarine, warships, cannons and ammunition. Captain Marchy's blaze makes future wars impossible. Shall we enjoy sunshine at night Captain Marchy will bring down a couple of Martians and the young generation will have wings. LeFranco-California fastened a bulletin with the caption of JULES VERNE'S DREAM OF A TRIP TO THE MOON HAS BEEN REALIZED. El Pueblo Espangnolo fastened another bulletin headed, SHALL WE TRAVEL WITH THE EARTH'S ROTATION? L'Italia and La Loce del Popolo

both fastened bulletins headed. Dispatches from Capua say that the fountain of youth can be found at Cumae in the grotto of the Sibyl, where that Prophetess lived 1000 years. In reading this news, hundreds of old people threw their canes away and hastened to the steamship offices, shouting joyfully "Viva la gioventu." Columbus Avenue was black with old people, running and running. A regiment of infantry was sent to the scene to keep order. When peace was restored some of the people found that they had mislaid their hats or lost their overcoats; others had mislaid their boots and lost their caps. Children were begging the old fathers not to depart; daughters were crying and grandchildren were screaming. The blessings of the wives and the provocation of the sons-in-laws turned the Latin quarters of San Francisco into a Babylon of confusion.

CHAPTER XVI

The Martians shoot a shell to the Earth.

If everyone could have had a telescope they might have seen another shell falling from the infinite. During the confusion, created by the joyful event, a beautiful object appeared in the sky. The astronomers at Lowell Observatory first saw it then Bourgas and finally Lick and others. The object was not large but very brilliant, with a graceful oval form. The Martians seemed to have calculated their jet with mathematical accuracy. The newspapers in San Francisco soon learned that Captain Marchy had announced that the Martians had fired at us with their huge



The Aeriolus. The Submarine of the air. Sun energy airplane. This airplane kicks its way through space by firing volleys of little muskets. See muzzle of guns at the bottom near the prow.

equatorial motion magnetic gun. As the shell approached the terrestrial air current at the height of 40 miles it set all the needles and wires of the Astronomical Observatories palpitating. Suddenly the enormous velocity, with which the shell was moving toward the earth, was arrested by the air current, causing it to be violently shifted and forcing it to graze around the earth like a satellite. Astronomers were immensely excited at the spectacle, but in spite of what had happened, the shell suddenly transformed its oval shape and extended a sort of a parachute. Captain Marchy announced that the Martian shell was equipped with a machine, generating electrical power from the air, and that it was operated indefinitely without the application of other sources of energy taking the place of all existing power generators on earth. The shell, with the disposition of its electrical power generator, was running at a speed of 2,034 miles per hour, passing the same point on the earth's surface twice in twenty-four hours.

People in the excess of their feelings started to telegraph to the antipodes in the search of a new central wireless station, but really this was the central station vibrating with the activity of radio bells and the ringer was audible at every station.

An interplanetary communication was started at the Eiffel Tower Wireless Station in Paris and soon Rome was set wild with joy. The last bulletin was fastened on the windows, under the caption, **CAPTAIN MARCHY HAS CAPTURED THE FLYING SHELL AND IS RETURNING TO MARS.** This news set the people of San Francisco in a walking spell. All the street cars were filled with

people returning to their homes. The first rush was already over. Large crowds of old Italians were marching to the Ferry Station on their departure for Italy. One old man was walking very fast but making short steps, thinking that he, by drinking at the fountain of youth, could be turned young, and with this in mind, extended his hands toward heaven and started thanking God. "Good-bye grandpa, come back young! cried little Romeo. Good-bye Grandpa, repeated a parrot, busy cracking a peanut. This time the old Italian lost his patience, pulled his revolver and aimed at the parrot, but the bird merely cried, "Good morning, Sir." "Oh, excuse me, Mr. Martian, said the old man, I thought you was a bird.

It may surprise some people to learn that a thick shower of meteors fell toward the earth, about 50 miles from the bullet aeroplane. The sky at Brazil, Guatemala and Mexico appeared to be on fire with flying meteors. In many places people laid prostrated on the ground. Cries of mercy could be heard for a mile off. Meteors fell at a speed of 40 miles a second. One of the larger of these masses, weighing several ounces, fell on the old castle of Casteltenanco near the tower and it weighed several hundred pounds. It was found to consist of the same elements as the earth, and a scientist said that the sun, which is considered the mother of the earth, moon, Mars and other planets, and the meteors are the same. We see the result of the uniformity of these laws in the world we inhabit; the same materials have produced organization and human life similar to these on the earth in many other planets.

We have detected in the sun many of those substances

that form so large a part of the earth's crust. The following twenty-two elements have been detected: Sodium, calcium, magnesium, iron, chromium, nickel, cobalt, hydrogen, manganese, aluminum, titanium, palladium, vanadium, molybdenum, strontium, lead, uranium, cerium, cadmium, oxygen, carbon, silver, tin. etc.

The uniformity of law and matter is proof that there must be through the universe organizations similar to those of our own system. We must suppose that chemical changes have a certain fixed composed materials, like all natural objects, one planet having larger deposits of silver, mercury and iron, another more diamonds, rubies and sapphires.

CHAPTER XVII

(Gold Fish skin, azur eyes, green hair, Martian maid is reflected from the Martian shell thru the stream of light

It may surprise some people to learn that the shower of meteors formed the fragments of some comet that had been recently changing its path, coming nearer the earth.

The Astronomical Observatory of Florence observed the Martian shell, passing through space, had forced the meteor (Phobus) to descend within 100,000 miles from the earth's orbit. The French Astronomers were assured, that this movement was a consequence of the attraction of the superior magnetic pull of the Martian shell. and finally, its rotation would be capable of producing light, which it would receive from the sun and that it would shine brilliantly, rivaling that of the Moon, having a diameter of 15

miles. In fact about 8 o'clock that night the sky appeared a spectacle such as the eye of man had never been privileged to behold. This spectacle had just started when a majestic blue light, larger than a rainbow, appeared on the horizon, streaming up to the new moon from the blue grotto of the lovely Isle of Capri on the Campanian shore. Naples seemed to be mysteriously enveloped in this beautiful light and Paris appeared, presenting a vision such as man had pictured it would be in paradise. The street lights at London were extinguished in order that a better view might be obtained of this majestic conical shaped brilliant stream of blue, violet and red colors, flashing upward. While people were walking on their heels, admiring this new natural wonder, the Martian girl, flying in the shell-aeroplane, was privileged by Captain Marchy to descend about 25 miles from the surface of the earth and within the violet stream of light flashing to the new moon from the earth. As the top and bottom of the Martian shell was now uncovered the round diamond bottom showed the Martian girl, who appeared to the eye of man on Mother Earth scarcely less beautiful than the best looking angels depicted by Murillo. Her brilliant gold-fish skin vivid azur eyes, beautiful green hair, shining pearl teeth, paradise bird feathers on her wings and her angelic figure astonished all the people of the earth.

Unfortunately, the new Moon Phobus at midnight moved upward, with an incredible velocity towards Mars, ceasing to shine on the earth, and the azure stream of light animating by the the blue grotto of Capri ceased to shine with it, and the Martian girl flew back to Captain Marchy's

bullet aeroplane.

No one should be surprised if the new satellite, possessing its original chemical properties. People came from all parts of the world in order to see this lovely Isle and its blue grotto. One can only enter the latter renowned spot, when the sea is calm, as the opening in the rock is so small and low. A soft blue mysteriously enveloped the visitors, coloring the air a magic azure as well as the thousands of stalactites which hung from its vaults.

In Imperial times the Romans had mirrors, invented by Archimedes, large enough to reflect the entire persons and thousands of soldiers were made to march in front of a large mirror, held in front of the blue grotto, and the flashing of pictures were sent to Turkey and Rumania on trajectory. The Romans were able to frighten those nations and compel them to obey the laws of Rome. The Diurna acta and the Publica acta Senate Journal, and authorized news, were sent to Empror Constantine at Constantinople, to Adrianus at Adrianoplus and to Marcianus at Maricanoples. Virgil frequently alluded to this system of sending messages and images by the Archimedes mirror, but Freccia points out the light of the ażur grotto as sending station from Capri to Ischia,, to Rome and on the same mathematical trajectory to Turkey, Rumania and God knows if the direct signals were not sent to Paris London and Berlin. Had the blue grotto the same chemical properties at the present day this system of sending messages and pictures could be utilized to reflect letters on the disc of the moon, as was acomplished in earlier times

and the news could reach everyman on earth with the cost of a penny

The air and the electricity in the Zodiacal light, which is caused by a ring of meteoric bodies, moving about the sun in sufficient numbers, was increased by molecules or dust from the shower of meteors flying through the Zodiacal light and this offered the bullet aeroplane a good chance to fly up to Mars, but this beautiful planet had to get in line with the zodiacal light in order to be reached, as space has no air planetary trips and telegraphv.

As Captain Marchy was spinning around the zodiacal light, waiting for the world Mars, the Professor asked Rubeus for a drink of acqua ardiente. Ah, this is delicious. Yes Professor cactus up in Mars are better than they are in Mexico, so acqua ardiente is better. By Jove, Rubeus, you are looking 25 years younger. Go away, Professor, it is yourself that is getting gold fish skin and growing green hair like the Martians. The first thing you know I will be growing wings. I am anxious to return to Mars in order to drink some more water at the fountain of youth. It is all ~~water of youth~~ up there, Rubeus, especially in the Schiapparelli's channels. Do you know why I am anxious to return to Mars, Rubeus? I want to study the cold and warm channel forming such steady delightful climate. You know, Mars has less heat than the earth. Why, Professor, that is easy to understand. Mars receives less heat from the sun, more natural heat from its springs. There you are. You are pretty clever, Rubeus, are you not? Yes, I know one thing that you don't know, and that is that a cañnon-ball, flying at the rate of one mile in five seconds

would expend 3,400,000 years in the journey to reach Alpha Centauri. At 30 miles an hour, a car will run 263,000 miles in a year, a little farther than the moon. The car must continue its unceasing speed for more than 80 million years in order to reach the closest star. Yes, suppose a Caproni Aeroplane would fly at a speed of 200 miles an hour how many years would it expend in the the journey? Why 14½ million years.

Now, Rubeus, can you tell me how old the people live to be in Uranus? Why, every year up there counts eighty-four of ours, therefore, a child of 10 would be 340 years old, and to become a grandfather up there you would have to live 5000 terrestrial years. Very well. now how about Neptune? Why, golden weddings up there would be celebrated when you would be 12,000 years old. Well, Professor, do you know how many moons there are around Uranus? No, I do not. Well there are 4 satellites, traveling from east to west. Karamba, Rubeus, you are not so ignorant. Here, here, boys, give up that dispute, turn some gelatine on the walls of the bullet aeroplane. the sun is almost melting it, and keep the mirror well covered before some of those villages go up in flames. Very well. Captain answered the colleagues. We must not use this mirror like the one employed by Archimedes at the siege of Syracuse and burn vessels, exclaimed the Captain with a smile.

CHAPTER XVIII

Return to Mars

By Jove, Captain, Mars is in line, look through the telescope! Yes, Professor, I can see it very clearly. My good colleagues, we shall now depart. I wish to call your attention to the wings. When the dial marks 40 miles off the surface of Mars press the button and be sure that the wings are well extended. Very well, Captain. Good-bye Mother Earth, cried the Captain. Good-bye howled the colleagues.

The Brass bands that had ceased to play when it was reported that the bullet aeroplane had really returned to Mars, again started playing, and continued until the whole world was wild with music. Newspaper boys were running and shouting. "Extra! extra!" I know where I am going, said the youngest one, I am going to Mars and grow wings, I am."

Boston, Mass., July, 12, 1920

Dear Mr. Rossi:

Sometime ago when I was teaching at the University of Santa Clara, in reading some of your works I found them very original and noticed that you was a scholar and close student.

Your manuscript "A TRIP TO MARS," keeps one in touch with the actual science of the present day, to study closely and then take just the one step forward which science is about to take. You illuminate the path; you inspire many of us to take the road not only to your visions which seem becoming our facts, but also to those which lie beyond.

A great many of Jules Verne's marvelous scientific prophesies once thought impossible have come true. "You surpass them by illuminating the way with modern means which were not discovered in the past century." "You have discarded all the brutal imagination concerning the inhabitants of Mars which was so horrible depicted by other authors." "You have illustrated." God's creatures in other worlds with that advanced step that has separated the Latin artists for paintings beautiful and inspiring, from the Egyptian and Aztec pictures, ugly and monstrous. "You have pictured the visions of that beautiful planet with a deep and understanding sympathy with it." Such is your genius in this work that one feels for your story the same understanding that all do for Jules Verne's, "TRIP TO THE MOON."

You have determined your story with less speaking, which is the professional refinement of many modern authors who can explain in a few lines what the common novelist generally cover several pages; thus showing the fruit that you have derived from the classic studies; "a lot of logic and little rhetoric."

"Now that there is talk of sending message to Mars, "Mars becomes doubly interesting." Novelists have written fictions about it to satisfy their imaginations. How much do we know about Mars, Venus, Jupiter and the Moon?

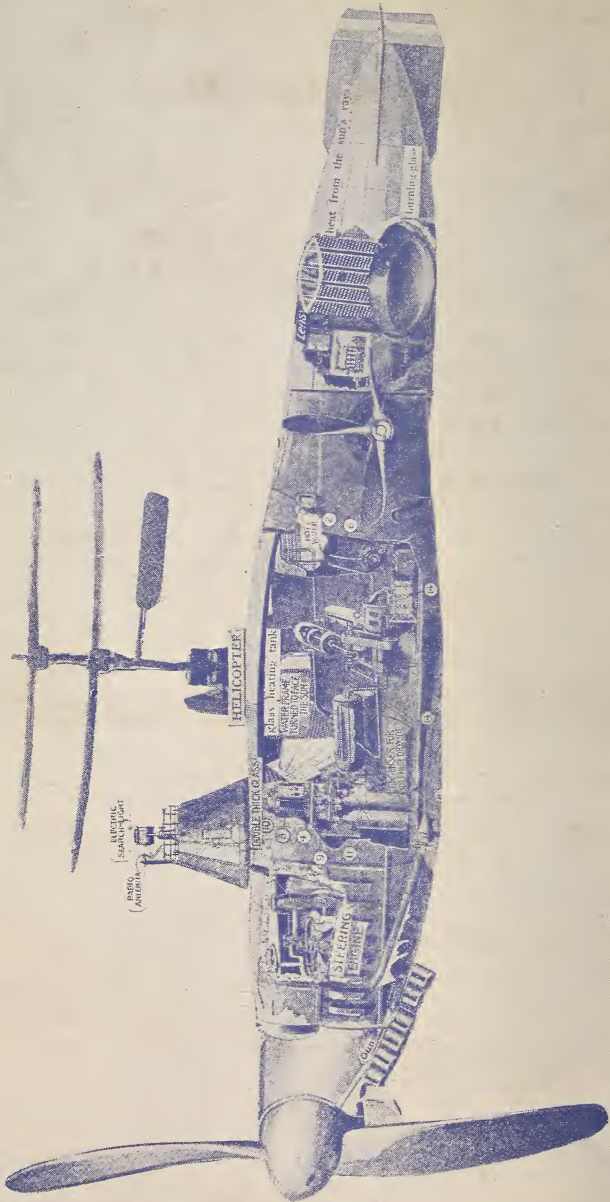
There are facts in your work that can not be found in hundreds of technical books.

The scheme of solar energy and the battery shooting volley and thus kicking its way into space which is the principal scheme of your interplanetary flight seem 99% possible. The whole story is so fascinating and sympathetic that it will be remembered long after the little quarrels of today are all forgotten.

Hoping that your work will be crowned with success.

Sincerely Yours,

Prof., A. GRASSY.





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