CHAPTER TEN

THE GREAT SMOKE BARRIER

At first we rose to a still greater height, in order more effectually to escape the watchful eyes of our enemies, and then, after having moved rapidly several hundred miles toward the west, we dropped down again within easy eyeshot of the surface of the planet, and commenced our inspection.

When we originally reached Mars, as I have related, it was at a point in its southern hemisphere, in latitude 45 degrees south, and longitude 75 degrees east, that we first closely approached its surface. Underneath us was the land called "Hellas," and it was over this land of Hellas that the Martian air fleet had suddenly made its appearance.

Our westward motion, while at a great height above the planet, had brought us over another oval-shaped land called "Noachia," surrounded by the dark ocean, the "Mare Erytræum." Now approaching nearer the surface our course was changed so as to carry us toward the equator of Mars.

We passed over the curious half-drowned continent known to terrestrial astronomers as the Region of Deucalion, then across another sea, or gulf, until we found ourselves floating at a height of perhaps five miles, above a great continental land, at least three thousand miles

broad from east to west, and which I immediately recognized as that to which astronomers had given the various names of "Aeria," "Edom," "Arabia," and "Eden."

Here the spectacle became of breathless interest.

"Wonderful! Wonderful!"

"Who could have believed it!"

Such were the exclamations heard on all sides.

When at first we were suspended above Hellas, looking toward the north, the northeast and the northwest, we had seen at a distance some of these great red regions, and had perceived the curious network of canals by which they were intersected. But that was a far-off and imperfect view.

Now, when we were near at hand and straight above one of these singular lands, the magnificence of the panorama surpassed belief.

From the earth about a dozen of the principal canals crossing the continent beneath us had been perceived, but we saw hundreds, nay thousands of them!

It was a double system, intended both for irrigation and for protection, and far more marvelous in its completeness than the boldest speculative

minds among our astronomers had ever dared to imagine.

"Ha! that's what I always said," exclaimed a veteran from one of our great observatories. "Mars is red because its soil and vegetation are red."

And certainly appearances indicated that he was right.

There were no green trees, and there was no green grass. Both were red, not of a uniform red tint, but presenting an immense variety of shades which produced a most brilliant effect, fairly dazzling our eyes.

But what trees! And what grass! And what flowers!

Our telescopes showed that even the smaller trees must be 200 or 300 feet in height, and there were forests of giants, whose average height was evidently at least 1,000 feet.

"That's all right," exclaimed the enthusiast I have just quoted. "I knew it would be so. The trees are big for the same reason that the men are, because the planet is small, and they can grow big without becoming too heavy to stand."

Flashing in the sun on all sides were the roofs of metallic buildings, which were evidently the only kind of edifices which Mars possessed. At any rate, if stone or wood were employed in their construction both were

completely covered with metallic plates.

This added immensely to the warlike aspect of the planet. For warlike it was. Everywhere we recognized fortified stations, glittering with an array of the polished knobs of the lightning machines, such as we had seen in the land of Hellas.

From the land of Edom, directly over the equator of the planet, we turned our faces westward, and, skirting the Mare Erytræum, arrived above the place where the broad canal known as the Indus empties into the sea.

Before us, and stretching away to the northwest, now lay the Continent of Chryse, a vast red land, oval in outline, and surrounded and crossed by innumerable canals. Chryse was not less than 1,600 miles across and it, too, evidently swarmed with giant inhabitants.

But the shadow of night lay upon the greater portion of the land of Chryse. In our rapid motion westward we had outstripped the sun and had now arrived at a point where day and night met upon the surface of the planet beneath us.

Behind all was brilliant with sunshine, but before us the face of Mars gradually disappeared in the deepening gloom. Through the darkness, far away, we could behold magnificent beams of electric light darting across the curtain of night, and evidently serving to illuminate towns and

cities that lay beneath.

We pushed on into the night for two or three hundred miles over that part of the continent of Chryse whose inhabitants were doubtless enjoying the deep sleep that accompanies the dark hours immediately preceding the dawn. Still everywhere splendid clusters of light lay like fallen constellations upon the ground, indicating the sites of great towns, which, like those of the earth never sleep.

But this scene, although weird and beautiful, could give us little of the kind of information of which we were in search.

Accordingly it was resolved to turn back eastward until we had arrived in the twilight space separating day and night, and then hover over the planet at that point, allowing it to turn beneath us so that, as we looked down, we should see in succession the entire circuit of the globe of Mars while it rolled under our eyes.

The rotation of Mars on its axis is performed in a period very little longer than the earth's rotation, so that the length of the day and night in the world of Mars is only some forty minutes longer than their length upon the earth.

In thus remaining suspended over the planet, on the line of daybreak, so to speak, we believed that we should be peculiarly safe from detection by the eyes of the inhabitants. Even astronomers are not likely to be

wide awake just at the peep of dawn. Almost all of the inhabitants, we confidently believed, would still be sound asleep upon that part of the planet passing directly beneath us, and those who were awake would not be likely to watch for unexpected appearances in the sky.

Besides, our height was so great that notwithstanding the numbers of the squadron, we could not easily be seen from the surface of the planet, and if seen at all we might be mistaken for high-flying birds.

Here we remained then through the entire course of twenty-four hours and saw in succession as they passed from night into day beneath our feet the land of Chryse, the great continent of Tharsis, the curious region of intersecting canals which puzzled astronomers on the earth had named the "Gordian Knot." The continental lands of Memnonia, Amozonia and Aeolia, the mysterious center where hundreds of vast canals came together from every direction, called the Triviun Charontis; the vast circle of Elysium, a thousand miles across, and completely surrounded by a broad green canal; the continent of Libya, which, as I remembered, had been half covered by a tremendous inundation whose effects were visible from the earth in 1889, and finally the long, dark sea of the Syrtis Major, lying directly south of the land of Hellas.

The excitement and interest which we all experienced were so great that not one of us took a wink of sleep during the entire twenty-four hours of our marvelous watch.

There are one or two things of special interest amid the multitude of wonderful observations that we made which I must mention here on account of their connection with the important events that followed soon after.

Just west of the land of Chryse we saw the smaller land of Ophir, in the midst of which is a singular spot called the Juventae Fons, and this Fountain of Youth, as our astronomers, by a sort of prophetic inspiration, had named it, proved later to be one of the most incredible marvels on the planet of Mars.

Further to the west, and north from the great continent of Tharsis, we beheld the immense oval-shaped land of Thaumasia containing in its center the celebrated "Lake of the Sun," a circular body of water not less than five hundred miles in diameter, with dozens of great canals running away from it like the spokes of a wheel in every direction, thus connecting it with the ocean which surrounds it on the south and east, and with the still larger canals that encircle it toward the north and west.

This Lake of the Sun came to play a great part in our subsequent adventures. It was evident to us from the beginning that it was the chief center of population on the planet. It lies in latitude 25 degrees south and longitude about 90 degrees west.

Having completed the circuit of the Martian globe, we were moved by the same feeling which every discoverer of new lands experiences, and

immediately returned to our original place above the land of Hellas, because since that was the first part of Mars which we had seen, we felt a greater degree of familiarity with it than with any portion of the planet, and there, in a certain sense, we felt "at home."

But, as it proved, our enemies were on the watch for us there. We had almost forgotten them, so absorbed were we by the great spectacles that had been unrolling themselves beneath our feet.

We ought, of course, to have been a little more cautious in approaching the place where they first caught sight of us, since we might have known that they would remain on the watch near that spot.

But at any rate they had seen us, and it was now too late to think of taking them again by surprise.

They on their part had a surprise in store for us, which was greater than any we had yet experienced.

We saw their ships assembling once more far down in the atmosphere beneath us, and we thought we could detect evidences of something unusual going on upon the surface of the planet.

Suddenly from the ships, and from various points on the ground beneath, there rose high in the air, and carried by invisible currents in every direction, immense volumes of black smoke, or vapor, which blotted out

of sight everything below them!

South, north, west and east, the curtain of blackness rapidly spread, until the whole face of the planet as far as our eyes could reach, and the airships thronging under us, were all concealed from sight!

Mars had played the game of the cuttlefish, which when pursued by its enemies darkens the water behind it by a sudden outgush of inky fluid and thus escapes the eye of its foe.

The eyes of man had never beheld such a spectacle!

Where a few minutes before the sunny face of a beautiful and populous planet had been shining beneath us, there was now to be seen nothing but black, billowing clouds, swelling up everywhere like the mouse-colored smoke that pours from a great transatlantic liner when fresh coal has just been heaped upon her fires.

In some places the smoke spouted upward in huge jets to the height of several miles; elsewhere it eddied in vast whirlpools of inky blackness.

Not a glimpse of the hidden world beneath us was anywhere to be seen.

Mars had put on its war mask, and fearful indeed was the aspect of it!

After the first pause of surprise the squadron quickly backed away into

the sky, rising rapidly, because, from one of the swirling eddies beneath us the smoke began suddenly to pile itself up in an enormous aerial mountain, whose peaks shot higher and higher, with apparently increasing velocity, until they seemed about to engulf us with their tumbling ebon masses.

Unaware what the nature of this mysterious smoke might be, and fearing that it was something more than a shield for the planet, and might be destructive to life, we fled before it, as before the onward sweep of a pestilence.

Directly underneath the flagship, one of the aspiring smoke peaks grew with most portentous swiftness, and, notwithstanding all our efforts, in a little while it had enveloped us.

Several of us were standing on the deck of the electrical ship. We were almost stifled by the smoke, and were compelled to take refuge within the car, where, until the electric lights had been turned on, darkness so black that it oppressed the strained eyeballs prevailed.

But in this brief experience, terrifying though it was, we had learned one thing. The smoke would kill by strangulation, but evidently there was nothing especially poisonous in its nature. This fact might be of use to us in our subsequent proceedings.

"This spoils our plans," said the commander. "There is no use of

remaining here for the present; let us see how far this thing extends."

At first we rose straight away to a height of 200 or 300 miles, thus passing entirely beyond the sensible limits of the atmosphere, and far above the highest point that the smoke could reach.

From this commanding point of view our line of sight extended to an immense distance over the surface of Mars in all directions. Everywhere the same appearance; the whole planet was evidently covered with the smoke.

A complete telegraphic system evidently connected all the strategic points upon Mars, so that, at a signal from the central station, the wonderful curtain could be instantaneously drawn over the entire face of the planet.

In order to make certain that no part of Mars remained uncovered, we dropped down again nearer to the upper level of the smoke clouds, and then completely circumnavigated the planet. It was thought possible that on the night side no smoke would be found and that it would be practicable for us to make a descent there.

But when we had arrived on that side of Mars which was turned away from the sun, we no longer saw beneath us, as we had done on our previous visit to the night hemisphere of the planet, brilliant groups and clusters of electric lights beneath us. All was dark.

In fact, so completely did the great shell of smoke conceal the planet that the place occupied by the latter seemed to be simply a vast black hole in the firmament.

The sun was hidden behind it, and so dense was the smoke that even the solar rays were unable to penetrate it, and consequently there was no atmospheric halo visible around the concealed planet.

All the sky around was filled with stars, but their countless host suddenly disappeared when our eyes turned in the direction of Mars. The great black globe blotted them out without being visible itself.

"Apparently we can do nothing here," said Mr. Edison. "Let us return to the daylight side."

When we had arrived near the point where we had been when the wonderful phenomenon first made its appearance, we paused, and then, at the suggestion of one of the chemists, dropped close to the surface of the smoke curtain which had now settled down into comparative quiescence, in order that we might examine it a little more critically.

The flagship was driven into the smoke cloud so deeply that for a minute we were again enveloped in night. A quantity of the smoke was entrapped in a glass jar.

Rising again into the sunlight, the chemists began an examination of the constitution of the smoke. They were unable to determine its precise character, but they found that its density was astonishingly slight. This accounted for the rapidity with which it had risen, and the great height which it had attained in the comparatively light atmosphere of Mars.

"It is evident," said one of the chemists, "that this smoke does not extend down to the surface of the planet. From what the astronomers say as to the density of the air on Mars, it is probable that a clear space of at least a mile in height exists between the surface of Mars and the lower limit of the smoke curtain. Just how deep the latter is we can only determine by experiment, but it would not be surprising if the thickness of this great blanket which Mars has thrown around itself should prove to be a quarter or half a mile."

"Anyhow," said one of the United States army officers, "they have dodged out of sight, and I don't see why we should not dodge in and get at them. If there is clear air under the smoke, as you think, why couldn't the ships dart down through the curtain and come to a close tackle with the Martians?"

"It would not do at all," said the commander. "We might simply run ourselves into an ambush. No; we must stay outside, and if possible fight them from here."

"They can't keep this thing up forever," said the officer. "Perhaps the smoke will clear off after a while, and then we will have a chance."

"Not much hope of that, I am afraid," said the chemist who had originally spoken. "This smoke could remain floating in the atmosphere for weeks, and the only wonder to me is how they ever expect to get rid of it, when they think their enemies have gone and they want some sunshine again."

"All that is mere speculation," said Mr. Edison; "let us get at something practical. We must do one of two things; either attack them shielded as they are, or wait until the smoke has cleared away. The only other alternative, that of plunging blindly down through the curtain is at present not to be thought of."

"I am afraid we couldn't stand a very long siege ourselves," suddenly remarked the chief commissary of the expedition, who was one of the members of the flagship's company.

"What do you mean by that?" asked Mr. Edison sharply, turning to him.

"Well, sir, you see," said the commissary, stammering, "our provisions wouldn't hold out."

"Wouldn't hold out?" exclaimed Mr. Edison, in astonishment, "why we have compressed and prepared provisions enough to last this squadron for

three years."

"We had, sir, when we left the earth," said the commissary, in apparent distress, "but I am sorry to say that something has happened."

"Something has happened! Explain yourself!"

"I don't know what it is, but on inspecting some of the compressed stores, a short time ago, I found that a large number of them were destroyed, whether through leakage of air, or what, I am unable to say. I sent to inquire as to the condition of the stores in the other ships in the squadron and I found that a similar condition of things prevailed there.

"The fact is," continued the commissary, "we have only provisions enough, in proper condition, for about ten days' consumption."

"After that we shall have to forage on the country, then," said the army officer.

"Why did you not report this before?" demanded Mr. Edison.

"Because, sir," was the reply, "the discovery was not made until after we arrived close to Mars, and since then there has been so much excitement that I have hardly had time to make an investigation and find out what the precise condition of affairs is; besides, I thought we

should land upon the planet and then we would be able to renew our supplies."

I closely watched Mr. Edison's expression in order to see how this most alarming news would affect him. Although he fully comprehended its fearful significance, he did not lose his self-command.

"Well, well," he said, "then it will become necessary for us to act quickly. Evidently we cannot wait for the smoke to clear off, even if there was any hope of its clearing. We must get down on Mars now, having conquered it first if possible, but anyway we must get down there, in order to avoid starvation."

"It is very lucky," he continued, "that we have ten days' supply left. A great deal can be done in ten days."

A few hours after this the commander called me aside, and said:

"I have thought it all out. I am going to reconstruct some of our disintegrators, so as to increase their range and their power. Then I am going to have some of the astronomers of the expedition locate for me the most vulnerable points upon the planet, where the population is densest and a hard blow would have the most effect, and I am going to pound away at them, through the smoke, and see whether we cannot draw them out of their shell."

With his expert assistants Mr. Edison set to work at once to transform a number of the disintegrators into still more formidable engines of the same description. One of these new weapons having been distributed to each of the members of the squadron, the next problem was to decide where to strike.

When we first examined the surface of the planet it will be remembered that we had regarded the Lake of the Sun and its environs as being the very focus of the planet. While it might also be a strong point of defence, yet an effective blow struck there would go to the enemy's heart and be more likely to bring the Martians promptly to terms than anything else.

The first thing, then, was to locate the Lake of the Sun on the smoke hidden surface of the planet beneath us. This was a problem that the astronomers could readily solve.

Fortunately, in the flagship itself there was one of the star-gazing gentlemen who had made a specialty of the study of Mars. That planet, as I have already explained, was now in opposition to the earth. The astronomer had records in his pocket which enabled him, by a brief calculation, to say just when the Lakes of the Sun would be on the meridian of Mars as seen from the earth. Our chronometers still kept terrestrial time; we knew the exact number of days and hours that had elapsed since we had departed, and so it was possible by placing ourselves in a line between the earth and Mars to be practically in the

situation of an astronomer in his observatory at home.

Then it was only necessary to wait for the hour when the Lake of the Sun would be upon the meridian of Mars in order to be certain what was the true direction of the latter from the flagship.

Having thus located the heart of our foe behind its shield of darkness, we prepared to strike.

"I have ascertained," said Mr. Edison, "the vibration period of the smoke, so that it will be easy for us to shatter it into invisible atoms. You will see that every stroke of the disintegrators will open a hole through the black curtain. If their field of destruction could be made wide enough, we might in that manner clear away the entire covering of smoke, but all that we shall really be able to do will be to puncture it with holes, which will, perhaps, enable us to catch glimpses of the surface beneath. In that manner we may be able more effectually to concentrate our fire upon the most vulnerable points."

Everything being prepared, and the entire squadron having assembled to watch the effect of the opening blow and be ready to follow it up, Mr. Edison himself poised one of the new disintegrators, which was too large to be carried in the hand, and, following the direction indicated by the calculations of the astronomers, launched the vibratory discharge into the ocean of blackness beneath.

Instantly there opened beneath us a huge well-shaped hole from which the black clouds rolled violently back in every direction.

Through this opening we saw the gleam of brilliant lights beneath.

We had made a hit.

"It's the Lake of the Sun!" shouted the astronomer who furnished the calculation by means of which its position had been discovered.

And, indeed, it was the Lake of the Sun. While the opening in the clouds made by the discharge was not wide, yet it sufficed to give us a view of a portion of the curving shore of the lake, which was ablaze with electric lights.

Whether our shot had done any damage, beyond making the circular opening in the cloud curtain, we could not tell, for almost immediately the surrounding black smoke masses billowed in to fill up the hole.

But in the brief glimpse we had caught sight of two or three large airships hovering in space above that part of the Lake of the Sun and its bordering city which we had beheld. It seemed to me in the brief glance I had that one ship had been touched by the discharge and was wandering in an erratic manner. But the clouds closed in so rapidly that I could not be certain.

Anyhow, we had demonstrated one thing, and that was that we could penetrate the cloud shield and reach the Martians in their hiding place.

It had been prearranged that the first discharge from the flagship should be a signal for the concentration of the fire of all the other ships upon the same spot.

A little hesitation, however, occurred, and a half a minute had elapsed before the disintegrators from the other members of the squadron were got into play.

Then, suddenly we saw an immense commotion in the cloud beneath us. It seemed to be beaten and hurried in every direction and punctured like a sieve with nearly a hundred great circular holes. Through these gaps we could see clearly a large region of the planet's surface, with many airships floating above it and the blaze of innumerable electric lights illuminating it. The Martians had created an artificial day under the curtain.

This time there was no question that the blow had been effective. Four or five of the airships, partially destroyed, tumbled headlong toward the ground, while even from our great distance there was unmistakable evidence that fearful execution had been done among the crowded structures along the shore of the lake.

As each of our ships possessed but one of the new disintegrators, and

since a minute or so was required to adjust them for a fresh discharge, we remained for a little while inactive after delivering the blow. Meanwhile the cloud curtain, though rent to shreds by the concentrated discharge of the disintegrators, quickly became a uniform black sheet again, hiding everything.

We had just had time to congratulate ourselves on the successful opening of our bombardment, and the disintegrator of the flagship was poised for another discharge, when suddenly out of the black expanse beneath, quivered immense electric beams, clear cut and straight as bars of steel, but dazzling our eyes with unendurable brilliance.

It was the reply of the Martians to our attack.

Three or four of the electrical ships were seriously damaged, and one, close beside the flagship, changed color, withered and collapsed, with the same sickening phenomena that had made our hearts shudder when the first disaster of this kind occurred during our brief battle over the asteroid.

Another score of our comrades were gone, and yet we had hardly begun the fight.

Glancing at the other ships which had been injured, I saw that the damage to them was not so serious, although they were evidently hors de combat for the present.

Our fighting blood was now boiling and we did not stop long to count our losses.

"Into the smoke!" was the signal, and the ninety and more electric ships which still remained in condition for action immediately shot downward.