

CHAPTER EIGHTEEN.

REFLECTIONS OF THE COLONISTS--THEIR LABOURS OF RECONSTRUCTION
RESUMED--

THE 1ST OF JANUARY 1869--A CLOUD OVER THE SUMMIT OF THE VOLCANO--
FIRST

WARNINGS OF AN ERUPTION--AYRTON AND CYRUS HARDING AT THE CORRAL--

EXPLORATION OF THE DAKKAR GROTTA--WHAT CAPTAIN NEMO HAD CONFIDED
TO THE

ENGINEER.

At break of day the colonists regained in silence the entrance of the cavern, to which they gave the name of "Dakkar Grotto," in memory of Captain Nemo. It was now low-water, and they passed without difficulty under the arcade, washed on the right by the sea.

The canoe was left here, carefully protected from the waves. As an excess of precaution, Pencroft, Neb, and Ayrton drew it up on a little beach which bordered one of the sides of the grotto, in a spot where it could run no risk of harm.

The storm had ceased during the night. The last low mutterings of the thunder died away in the west. Rain fell no longer, but the sky was yet obscured by clouds. On the whole, this month of October, the first of the southern spring, was not ushered in by satisfactory tokens, and the wind had a tendency to shift from one point of the compass to another, which rendered it impossible to count upon settled weather.

Cyrus Harding and his companions, on leaving Dakkar Grotto, had taken the road to the corral. On their way Neb and Herbert were careful to preserve the wire which had been laid down by the captain between the corral and the grotto, and which might at a future time be of service.

The colonists spoke but little on the road. The various incidents of the night of the 15th October had left a profound impression on their minds. The unknown being whose influence had so effectually protected them, the man whom their imagination had endowed with supernatural powers, Captain Nemo, was no more. His Nautilus and he were buried in the depths of the abyss. To each one of them their existence seemed even more isolated than before. They had been accustomed to count upon the intervention of that power which existed no longer, and Gideon Spilett, and even Cyrus Harding, could not escape this impression. Thus they maintained a profound silence during their journey to the corral.

Towards nine in the morning the colonists arrived at Granite House.

It had been agreed that the construction of the vessel should be actively pushed forward, and Cyrus Harding more than ever devoted his time and labour to this object. It was impossible to divine what future lay before them. Evidently the advantage to the colonists would be great of having at their disposal a substantial vessel, capable of keeping the sea even in heavy weather, and large enough to attempt, in case of need, a voyage of some duration. Even if, when their vessel

should be completed, the colonists should not resolve to leave Lincoln Island as yet, in order to gain either one of the Polynesian archipelagos of the Pacific or the shores of New Zealand, they might at least, sooner or later, proceed to Tabor Island, to leave there the notice relating to Ayrton. This was a precaution rendered indispensable by the possibility of the Scotch yacht reappearing in those seas, and it was of the highest importance that nothing should be neglected on this point.

The works were then resumed. Cyrus Harding, Pencroft, and Ayrton, assisted by Neb, Gideon Spilett, and Herbert, except when unavoidably called off by other necessary occupations, worked without cessation. It was important that the new vessel should be ready in five months--that is to say, by the beginning of March--if they wished to visit Tabor Island before the equinoctial gales rendered the voyage impracticable. Therefore the carpenters lost not a moment. Moreover, it was unnecessary to manufacture rigging, that of the Speedy having been saved entire, so that the hull only of the vessel needed to be constructed.

The end of the year 1868 found them occupied by these important labours, to the exclusion of almost all others. At the expiration of two months and a half the ribs had been set up and the first planks adjusted. It was already evident that the plans made by Cyrus Harding were admirable, and that the vessel would behave well at sea.

Pencroft brought to the task a devouring energy, and scrupled not to grumble when one or the other abandoned the carpenter's axe for the gun of the hunter. It was nevertheless necessary to keep up the stores of Granite House, in view of the approaching winter. But this did not satisfy Pencroft. The brave honest sailor was not content when the workmen were not at the dockyard. When this happened he grumbled vigorously, and, by way of venting his feelings, did the work of six men.

The weather was very unfavourable during the whole of the summer season. For some days the heat was overpowering, and the atmosphere, saturated with electricity, was only cleared by violent storms. It was rarely that the distant growling of the thunder could not be heard, like a low but incessant murmur, such as is produced in the equatorial regions of the globe.

The 1st of January, 1869, was signalised by a storm of extreme violence, and the thunder burst several times over the island. Large trees were struck by the electric fluid and shattered, and among others one of those gigantic micocouliers which shaded the poultry-yard at the southern extremity of the lake. Had this meteor any relation to the phenomena going on in the bowels of the earth? Was there any connection between the commotion of the atmosphere and that of the interior of the earth? Cyrus Harding was inclined to think that such was the case, for the development of these storms was attended by the renewal of volcanic symptoms.

It was on the 3rd of January that Herbert, having ascended at daybreak to the plateau of Prospect Heights to harness one of the onagas, perceived an enormous hat-shaped cloud rolling from the summit of the volcano.

Herbert immediately apprised the colonists, who at once joined him in watching the summit of Mount Franklin.

"Ah!" exclaimed Pencroft, "those are not vapours this time! It seems to me that the giant is not content with breathing; he must smoke!"

This figure of speech employed by the sailor exactly expressed the changes going on at the mouth of the volcano. Already for three months had the crater emitted vapours more or less dense, but which were as yet produced only by an internal ebullition of mineral substances. But now the vapours were replaced by a thick smoke, rising in the form of a greyish column, more than three hundred feet in width at its base, and which spread like an immense mushroom to a height of from seven to eight hundred feet above the summit of the mountain.

"The fire is in the chimney," observed Gideon Spilett.

"And we can't put it out!" replied Herbert.

"The volcano ought to be swept," observed Neb, who spoke as if perfectly

serious.

"Well said, Neb!" cried Pencroft, with a shout of laughter; "and you'll undertake the job, no doubt?"

Cyrus Harding attentively observed the dense smoke emitted by Mount Franklin, and even listened, as if expecting to hear some distant muttering. Then, turning towards his companions, from whom he had gone somewhat apart, he said--

"The truth is, my friends, we must not conceal from ourselves that an important change is going forward. The volcanic substances are no longer in a state of ebullition, they have caught fire, and we are undoubtedly menaced by an approaching eruption."

"Well, captain," said Pencroft, "we shall witness the eruption; and if it is a good one, we'll applaud it. I don't see that we need concern ourselves further about the matter."

"It may be so," replied Cyrus Harding, "for the ancient track of the lava is still open; and thanks to this, the crater has hitherto overflowed towards the north. And yet--"

"And yet, as we can derive no advantage from an eruption, it might be better it should not take place," said the reporter.

"Who knows?" answered the sailor. "Perhaps there may be some valuable substance in this volcano, which it will spout forth, and which we may turn to good account!"

Cyrus Harding shook his head with the air of a man who augured no good from the phenomenon whose developments had been so sudden. He did not regard so lightly as Pencroft the results of an eruption. If the lava, in consequence of the position of the crater, did not directly menace the wooded and cultivated parts of the island, other complications might present themselves. In fact, eruptions are not unfrequently accompanied by earthquakes; and an island of the nature of Lincoln Island formed of substances so varied, basalt on one side, granite on the other, lava on the north, rich soil on the south, substances which consequently could not be firmly attached to each other, would be exposed to the risk of disintegration. Although, therefore, the spreading of the volcanic matter might not constitute a serious danger, any movement of the terrestrial structure which should shake the island might entail the gravest consequences.

"It seems to me," said Ayrton, who had reclined so as to place his ear to the ground, "it seems to me that I can hear a dull, rumbling sound, like that of a wagon loaded with bars of iron."

The colonists listened with the greatest attention, and were convinced that Ayrton was not mistaken. The rumbling was mingled with a subterranean roar, which formed a sort of *rinforzando*, and died slowly

away, as if some violent storm had passed through the profundities of the globe. But no explosion, properly so termed, could be heard. It might therefore be concluded that the vapours and smoke found a free passage through the central shaft; and that the safety-valve being sufficiently large, no convulsion would be produced, no explosion was to be apprehended.

"Well, then!" said Pencroft, "are we not going back to work? Let Mount Franklin smoke, groan, bellow, or spout forth fire and flame as much as it pleases, that is no reason why we should be idle! Come, Ayrton, Neb, Herbert, Captain Harding, Mr Spilett, every one of us must turn to at our work to-day! We are going to place the keelson, and a dozen pair of hands would not be too many. Before two months I want our new Bonadventure--for we shall keep the old name, shall we not?--to float on the waters of Port Balloon! Therefore there is not an hour to lose!"

All the colonists, their services thus requisitioned by Pencroft, descended to the dockyard, and proceeded to place the keelson, a thick mass of wood which forms the lower portion of a ship and unites firmly the timbers of the hull. It was an arduous undertaking, in which all took part.

They continued their labours during the whole of this day, the 3rd of January, without thinking further of the volcano, which could not, besides, be seen from the shore of Granite House. But once or twice, large shadows, veiling the sun, which described its diurnal arc through

an extremely clear sky, indicated that a thick cloud of smoke passed between its disc and the island. The wind, blowing on the shore, carried all these vapours to the westward. Cyrus Harding and Gideon Spilett remarked these sombre appearances, and from time to time discussed the evident progress of the volcanic phenomena, but their work went on without interruption. It was, besides, of the first importance from every point of view, that the vessel should be finished with the least possible delay. In presence of the eventualities which might arise, the safety of the colonists would be to a great extent secured by their ship. Who could tell that it might not prove some day their only refuge?

In the evening, after supper, Cyrus Harding, Gideon Spilett, and Herbert, again ascended the plateau of Prospect Heights. It was already dark, and the obscurity would permit them to ascertain if flames or incandescent matter thrown up by the volcano were mingled with the vapour and smoke accumulated at the mouth of the crater.

"The crater is on fire!" said Herbert, who, more active than his companions, first reached the plateau.

Mount Franklin, distant about six miles, now appeared like a gigantic torch, around the summit of which turned fuliginous flames. So much smoke, and possibly scoriae and cinders were mingled with them, that their light gleamed but faintly amid the gloom of the night. But a kind of lurid brilliancy spread over the island, against which stood out

confusedly the wooded masses of the heights. Immense whirlwinds of vapour obscured the sky, through which glimmered a few stars.

"The change is rapid!" said the engineer. "That is not surprising," answered the reporter. "The re-awakening of the volcano already dates back some time. You may remember, Cyrus, that the first vapours appeared about the time we searched the sides of the mountain to discover Captain Nemo's retreat. It was, if I mistake not, about the 15th of October."

"Yes," replied Herbert, "two months and a half ago!"

"The subterranean fires have therefore been smouldering for ten weeks," resumed Gideon Spilett, "and it is not to be wondered at that they now break out with such violence!"

"Do not you feel a certain vibration of the soil?" asked Cyrus Harding.

"Yes," replied Gideon Spilett, "but there is a great difference between that and an earthquake."

"I do not affirm that we are menaced with an earthquake," answered Cyrus Harding, "may God preserve us from that! No; these vibrations are due to the effervescence of the central fire. The crust of the earth is simply the shell of a boiler, and you know that such a shell, under the pressure of steam, vibrates like a sonorous plate. It is this effect

which is being produced at this moment."

"What magnificent flames!" exclaimed Herbert.

At this instant a kind of bouquet of flames shot forth from the crater, the brilliancy of which was visible even through the vapours. Thousands of luminous sheets and barbed tongues of fire were cast in various directions. Some, extending beyond the dome of smoke, dissipated it, leaving behind an incandescent powder. This was accompanied by successive explosions, resembling the discharge of a battery of mitrailleuses.

Cyrus Harding, the reporter, and Herbert, after spending an hour on the plateau of Prospect Heights, again descended to the beach, and returned to Granite House. The engineer was thoughtful and preoccupied, so much so, indeed, that Gideon Spilett inquired if he apprehended any immediate danger, of which the eruption might directly or indirectly be the cause.

"Yes, and no," answered Cyrus Harding.

"Nevertheless," continued the reporter, "would not the greatest misfortune which could happen to us be an earthquake which would overturn the island? Now, I do not suppose that this is to be feared, since the vapours and lava have found a free outlet."

"True," replied Cyrus Harding, "and I do not fear an earthquake in the

sense in which the term is commonly applied to convulsions of the soil provoked by the expansion of subterranean gases. But other causes may produce great disasters."

"How so, my dear Cyrus?"

"I am not certain. I must consider. I must visit the mountain. In a few days I shall learn more on this point."

Gideon Spilett said no more, and soon, in spite of the explosions of the volcano, whose intensity increased, and which were repeated by the echoes of the island, the inhabitants of Granite House were sleeping soundly.

Three days passed by--the 4th, 5th, and 6th of January. The construction of the vessel was diligently continued, and without offering further explanations the engineer pushed forward the work with all his energy. Mount Franklin was now hooded by a sombre cloud of sinister aspect, and, amid the flames, vomited forth incandescent rocks, some of which fell back into the crater itself. This caused Pencroft, who would only look at the matter in the light of a joke, to exclaim--

"Ah! the giant is playing at cup and ball; he is a conjuror."

In fact, the substances thrown up fell back again into the abyss, and it did not seem that the lava, though swollen by the internal pressure, had

yet risen to the orifice of the crater. At any rate, the opening on the north-east, which was partly visible, poured out no torrent upon the northern slope of the mountain.

Nevertheless, however pressing was the construction of the vessel, other duties demanded the presence of the colonists on various portions of the island. Before everything it was necessary to go to the corral, where the flocks of musmons and goats were enclosed, and replenish the provision of forage for those animals. It was accordingly arranged that Ayrton should proceed thither the next day, the 7th of January; and as he was sufficient for the task, to which he was accustomed, Pencroft and the rest were somewhat surprised on hearing the engineer say to Ayrton--

"As you are going to-morrow to the corral I will accompany you."

"But, Captain Harding," exclaimed the sailor, "our working days will not be many, and if you go also we shall be two pair of hands short!"

"We shall return to-morrow," replied Cyrus Harding, "but it is necessary that I should go to the corral. I must learn how the eruption is progressing."

"The eruption! always the eruption!" answered Pencroft, with an air of discontent. "An important thing, truly, this eruption! I trouble myself very little about it."

Whatever might be the sailor's opinion, the expedition projected by the engineer was settled for the next day. Herbert wished to accompany Cyrus Harding, but he would not vex Pencroft by his absence.

The next day, at dawn, Cyrus Harding and Ayrton, mounting the cart drawn by two onagas, took the road to the corral and set off at a round trot.

Above the forest were passing large clouds, to which the crater of Mount Franklin incessantly added fuliginous matter. These clouds, which rolled heavily in the air, were evidently composed of heterogeneous substances. It was not alone from the volcano that they derived their strange opacity and weight. Scorias, in a state of dust, like powdered pumice-stone, and greyish ashes as small as the finest feculae, were held in suspension in the midst of their thick folds. These ashes are so fine that they have been observed in the air for whole months. After the eruption of 1783 in Iceland for upwards of a year the atmosphere was thus charged with volcanic dust through which the rays of the sun were only with difficulty discernible.

But more often this pulverised matter falls, and this happened on the present occasion. Cyrus Harding and Ayrton had scarcely reached the corral when a sort of black snow like fine gunpowder fell, and instantly changed the appearance of the soil. Trees, meadows, all disappeared beneath a covering several inches in depth. But, very fortunately, the wind blew from the north-east, and the greater part of the cloud dissolved itself over the sea.

"This is very singular, Captain Harding," said Ayrton.

"It is very serious," replied the engineer. "This powdered pumice-stone, all this mineral dust, proves how grave is the convulsion going forward in the lower depths of the volcano."

"But can nothing be done?"

"Nothing, except to note the progress of the phenomenon. Do you, therefore, Ayrton, occupy yourself with the necessary work at the corral. In the meantime I will ascend just beyond the source of Red Creek and examine the condition of the mountain upon its northern aspect. Then--"

"Well, Captain Harding?"

"Then we will pay a visit to Dakkar Grotto. I wish to inspect it. At any rate I will come back for you in two hours."

Ayrton then proceeded to enter the corral, and, while waiting the engineer's return, busied himself with the musmons and goats, which seemed to feel a certain uneasiness in presence of these first signs of an eruption.

Meanwhile Cyrus Harding ascended the crest of the eastern spur, passed

Red Creek, and arrived at the spot where he and his companions had discovered a sulphureous spring at the time of their first exploration.

How changed was everything! Instead of a single column of smoke he counted thirteen, forced through the soil as if violently propelled by some piston. It was evident that the crust of the earth was subjected in this part of the globe to a frightful pressure. The atmosphere was saturated with gases and carbonic acid, mingled with aqueous vapours. Cyrus Harding felt the volcanic tufa with which the plain was strewn, and which were but pulverised cinders hardened into solid blocks by time, tremble beneath him, but he could discover no traces of fresh lava.

The engineer became more assured of this when he observed all the northern part of Mount Franklin. Pillars of smoke and flame escaped from the crater; a hail of scorias fell on the ground; but no current of lava burst from the mouth of the volcano, which proved that the volcanic matter had not yet attained the level of the superior orifice of the central shaft.

"But I would prefer that it were so," said Cyrus Harding to himself.

"At any rate, I should then know that the lava had followed its accustomed track. Who can say that they may not take a new course? But the danger does not consist in that! Captain Nemo foresaw it clearly! No, the danger does not lie there!"

Cyrus Harding advanced towards the enormous causeway whose prolongation enclosed the narrow Shark Gulf. He could now sufficiently examine on this side the ancient channels of the lava. There was no doubt in his mind that the most recent eruption had occurred at a far-distant epoch.

He then returned by the same way, listening attentively to the subterranean mutterings which rolled like long-continued thunder, interrupted by deafening explosions. At nine in the morning he reached the corral.

Ayrton awaited him.

"The animals are cared for, Captain Harding," said Ayrton.

"Good, Ayrton."

"They seem uneasy, Captain Harding."

"Yes, instinct speaks through them, and instinct is never deceived."

"Are you ready?"

"Take a lamp, Ayrton," answered the engineer; "we will start at once."

Ayrton did as desired. The onagas, unharnessed, roamed in the corral.

The gate was secured on the outside, and Cyrus Harding, preceding

Ayrton, took the narrow path which led westward to the shore.

The soil they walked upon was choked with the pulverised matter fallen from the cloud. No quadruped appeared in the woods. Even the birds had fled. Sometimes a passing breeze raised the covering of ashes, and the two colonists, enveloped in a whirlwind of dust, lost sight of each other. They were then careful to cover their eyes and mouths with handkerchiefs, for they ran the risk of being blinded and suffocated.

It was impossible for Cyrus Harding and Ayrton, with these impediments, to make rapid progress. Moreover, the atmosphere was close, as if the oxygen had been partly burnt up, and had become unfit for respiration. At every hundred paces they were obliged to stop to take breath. It was therefore past ten o'clock when the engineer and his companion reached the crest of the enormous mass of rocks of basalt and porphyry which composed the north-west coast of the island.

Ayrton and Cyrus Harding commenced the descent of this abrupt declivity, following almost step for step the difficult path which, during that stormy night, had led them to Dakkar Grotto. In open day the descent was less perilous, and, besides, the bed of ashes which covered the polished surface of the rock enabled them to make their footing more secure.

The ridge at the end of the shore, about forty feet in height, was soon reached. Cyrus Harding recollected that this elevation gradually sloped

towards the level of the sea. Although the tide was at present low, no beach could be seen, and the waves, thickened by the volcanic dust, beat upon the basaltic rocks.

Cyrus Harding and Ayrton found without difficulty the entrance to Dakkar Grotto, and paused for a moment at the last rock before it.

"The iron boat should be there," said the engineer.

"It is here, Captain Harding," replied Ayrton, drawing towards him the fragile craft, which was protected by the arch of a vault.

"On board, Ayrton!"

The two colonists stepped into the boat. A slight undulation of the waves carried it farther under the low arch of the crypt, and there Ayrton, with the aid of flint and steel, lighted the lamp. He then took the oars, and the lamp having been placed in the bow of the boat, so that its rays fell before them, Cyrus Harding took the helm and steered through the shades of the grotto.

The Nautilus was there no longer to illuminate the cavern with its electric light. Possibly it might not yet be extinguished, but no ray escaped from the depths of the abyss in which reposed all that was mortal of Captain Nemo.

The light afforded by the lamp, although feeble, nevertheless enabled the engineer to advance slowly, following the wall of the cavern. A deathlike silence reigned under the vaulted roof, or at least in the anterior portion, for soon Cyrus Harding distinctly heard the rumbling which proceeded from the bowels of the mountain.

"That comes from the volcano," he said.

Besides these sounds, the presence of chemical combinations was soon betrayed by their powerful odour, and the engineer and his companion were almost suffocated by sulphureous vapours.

"This is what Captain Nemo feared," murmured Cyrus Harding, changing countenance. "We must go to the end, notwithstanding."

"Forward!" replied Ayrton, bending to his oars and directing the boat towards the head of the cavern.

Twenty-five minutes after entering the mouth of the grotto the boat reached the extreme end.

Cyrus Harding then, standing up, cast the light of the lamp upon the walls of the cavern which separated it from the central shaft of the volcano. What was the thickness of this wall? It might be ten feet or a hundred feet--it was impossible to say. But the subterranean sounds were too perceptible to allow of the supposition that it was of any

great thickness.

The engineer, after having explored the wall at a certain height horizontally, fastened the lamp to the end of an oar, and again surveyed the basaltic wall at a greater elevation.

There, through scarcely visible clefts and joinings, escaped a pungent vapour, which infected the atmosphere of the cavern. The wall was broken by large cracks, some of which extended to within two or three feet of the water's edge.

Cyrus Harding thought for a brief space. Then he said in a low voice--

"Yes! the captain was right! The danger lies there, and a terrible danger!"

Ayrton said not a word, but, upon a sign from Cyrus Harding, resumed the oars, and half an hour later the engineer and he reached the entrance of Dakkar Grotto.