by Captain Nemo, who was followed by a dozen of the crew, we set foot, at a depth of about thirty feet, on the solid bottom on which the Nautilus rested.



A slight declivity ended in an uneven bottom, at fifteen fathoms depth. This bottom differed entirely from the one I had visited on my first excursion under the waters of the Pacific Ocean. Here, there was no fine sand, no submarine prairies, no sea forest. I immediately recognized that marvelous region in which, on that day, the captain did the honors to us. It was the coral kingdom. In the zoophyte branch and in the alcyon class I noticed the gorgoneae, the isidiae, and the corollariae.

The light produced a thousand charming varieties, playing in the midst of the branches that were so vividly colored. I seemed to see the membranous and cylindrical tubes tremble beneath the undulation of the waters. I was tempted to gather their fresh petals, ornamented with delicate tentacules, some just blown, the others budding, while small fish, swimming swiftly, touched them slightly, like flights of birds. But if my hand approached these living flowers, these animated sensitive plants, the whole colony took alarm. The white petals reentered their red cases, the flowers faded as I looked, and the bush changed into a block of stony knobs.

Chance had thrown me just by the most precious specimens of this zoophyte. This coral was more valuable than that found in the Mediterranean, on the coasts of France, Italy, and Barbary. Its tints justified the poetical names of "Flower of Blood," and "Froth of Blood," that trade has given to its most beautiful productions. Coral is sold for about \$100 an ounce; and in this place, the watery beds would make the fortunes of a company of coral divers. This precious matter, often confused with other polypi, formed then the inextricable plots called macciota, and on which I noticed several beautiful specimens of pink coral.

But soon the bushes contract, and the arborizations increase. Real petrified thickets, long joists of fantastic architecture, were disclosed before us. Captain Nemo placed himself under a dark gallery, where by a slight declivity we reached a depth of a hundred yards. The light from our lamps produced sometimes magical effects, following the rough outlines of the natural arches, and pendants disposed like lusters, that were tipped with points of fire. Between the coralline shrubs I noticed other polypi not less curious, melites, and irises with articulated ramifications, also some tufts of coral, some green, others red, like seaweed incrusted in their calcareous salts, that naturalists, after long discussion, have definitely classed in the vegetable kingdom. But following the remark of a thinking man, "there is perhaps the real point where life rises obscurely from the sleep of a stone, without detaching itself from the rough point of departure."

At last, after walking two hours, we had attained a depth of about three hundred yards, that is to say, the extreme limit on which coral begins to form. But there was no isolated bush, nor modest brushwood, at the bottom of lofty trees. It was an immense forest of large mineral vegetations, enormous petrified trees, united by garlands of elegant plumarias, sea bindweed, all adorned with clouds and reflections. We passed freely under their high branches, lost in the shade of the waves, while at out feet, tubipores, meandrines, stars, fungi, and caryophyllidae formed a carpet of flowers sown with dazzling gems. What an indescribable spectacle!

Captain Nemo had stopped. I and my companions halted, and turning round, I saw his men were forming a semicircle round their chief. Watching attentively, I observed that four of them carried on their shoulders and object of an oblong shape.

We occupied, in this place, the center of a vast glade surrounded by the lofty foliage of the submarine forest. Our lamps threw over this place a sort of clear twilight that singularly elongated the shadows on the ground. At the end of the glade the darkness increased, and was only relieved by little sparks reflected by the points of coral.

Ned Land and Conseil were near me. We watched, and I thought I was going to witness a strange scene. On observing the ground, I saw that it was raised in certain places by slight excrescences incrusted with limy deposits, and disposed with a regularity that betrayed the hand of man.

In the midst of the glade, on a pedestal of rocks roughly piled up, stood a cross of coral, that extended its long arms that one might have thought were made of petrified blood.

Upon a sign from Captain Nemo, one of the men advanced; and at some feet from the cross, he began to dig a hole with a pickax that he took from his belt. I understood all! This glade was a cemetery, this hole a tomb, this oblong object the body of the man who had died in the night The captain and his men had come to bury their companion in this general resting place, at the bottom of this inaccessible ocean!

The grave was being dug slowly; the fish fled on all sides while their retreat was being thus disturbed; I heard the strokes of the pickax, which sparked when it hit upon some flint lost at the bottom of the waters. The hole was soon large and deep enough to receive the body. Then the bearers approached; the body, enveloped in a tissue of white byssus, was lowered into the damp grave. Captain Nemo, with his arms crossed on his breast, and all the friends of him who had loved them, knelt in prayer.

The grave was then filled in with the rubbish taken from the ground, which formed a slight mound. When this was done, Captain Nemo and his men rose; then, approaching the grave, they knelt again, and all extended their hands in sign of a last adieu. Then the funeral procession returned to the Nautilus, passing under the arches of the forest, in the midst of thickets, along the coral bushes, and still on the ascent. At last the fires on board appeared, and their luminous track guided us to the Nautilus. At one o'clock we had returned.

As soon as I had changed my clothes, I went up on the platform, and, a prey to conflicting emotions, I sat down near the binnacle. Captain Nemo joined me. I rose and said to him:

"So, as I said he would, this man died in the night?"

"Yes, M. Aronnax."

"And he rests now, near his companions, in the coral cemetery?"

"Yes, forgotten by all else, but not by us. We dug the grave, and the polypi undertake to seal our dead for eternity." And burying his face quickly in his hands, he tried in vain to suppress a sob. Then he added, "Our peaceful cemetery is there, some hundred feet below the surface of the waves."

"Your dead sleep quietly, at least, Captain, out of the reach of sharks."

"Yes, Sir, of sharks and men," gravely replied the captain.  $$\operatorname{\textsc{PART}}$  II.

# CHAPTER I.

### THE INDIAN OCEAN.

WE NOW come to the second part of our journey under the sea. The first ended with the moving scene in the coral cemetery, which left

such a deep impression on my mind. Thus, in the midst of this great sea, Captain Nemo's life was passing even to his grave, which he had prepared in one of its deepest abysses. There, not one of the ocean's monsters could trouble the last sleep of the crew of the Nautilus, of those friends riveted to one another in death as in life. "Nor any man either," had added the captain. Still the same fierce, implacable defiance toward human society!

I could no longer content myself with the hypothesis which satisfied Conseil.

That worthy fellow persisted in seeing in the commander of the Nautilus one of those unknown savants who return mankind contempt for indifference. For him, he was a misunderstood genius, who, tired of earth's deceptions, had taken refuge in this inaccessible medium, where he might follow his instincts freely. To my mind, this hypothesis explained but one side of Captain Nemo's character.

Indeed, the mystery of that last night, during which we had been chained in prison, the sleep, and the precaution so violently taken by the captain of snatching from my eyes the glass I had raised to sweep the horizon, the mortal wound of the man, due to an unaccountable shock of the Nautilus, all put me on a new track. No, Captain Nemo was not satisfied with shunning man. His formidable apparatus not only suited his instinct of freedom, but, perhaps, also the design of some terrible retaliation.

At this moment, nothing is clear to me; I catch but a glimpse of light amidst all the darkness, and I must confine myself to writing as events shall dictate.

That day, January 24, 1868, at noon, the second officer came to take the altitude of the sun. I mounted the platform, lit a cigar, and watched the operation. It seemed to me that the man did not understand French; for several times I made remarks in a loud voice, which must have drawn from him some involuntary sign of attention, if he had understood them; but he remained undisturbed and dumb.

As he was taking observations with the sextant, one of the sailors of the Nautilus (the strong man who had accompanied us on our first submarine excursion to the Island of Crespo) came to clean the glasses of the lantern. I examined the fittings of the apparatus, the strength of which was increased a hundredfold by lenticular rings, placed similar to those in a lighthouse, and which projected their brilliance in a horizontal plane. The electric lamp was combined in such a way as to give its most powerful light. Indeed, it was produced in vacuo, which insured both its steadiness and its intensity. This vacuum economized the graphite points, between which the luminous arc was developed—an important point of economy for Captain Nemo, who could not easily have replaced them; and under these conditions their waste was imperceptible. When the Nautilus was ready to continue its submarine journey, I went down to the saloon. The panels were closed, and the course marked direct west.

We were furrowing the waters of the Indian Ocean, a vast liquid plain, with a surface of 1,200,000,000 of acres, and whose waters are so clear and transparent that anyone leaning over them would turn giddy. The Nautilus usually floated between fifty and a hundred fathoms deep. We went on so for some days. To anyone but myself, who had a great love for the sea, the hours would have seemed long and monotonous; but the daily walks on the platform, when I steeped myself in the reviving air of the ocean, the sight of the rich waters through the windows of the saloon, the books in the library, the compiling of my memoirs, took up all my time, and left me not a moment of ennui or weariness.

For some days we saw a great number of aquatic birds, sea mews or gulls. Some were cleverly killed, and, prepared in a certain way,

made very acceptable water game. Among large winged birds, carried a long distance from all lands, and resting upon the waves from the fatigue of their flight, I saw some magnificent albatrosses, uttering discordant cries like the braying of an ass, and birds belonging to the family of the longipennates. The family of the totipalmates was represented by the sea swallows, which caught the fish from the surface, and by numerous phaetons, or lepturi; amongst others, the phaeton with red lines, as large as a pigeon, whose white plumage, tinted with pink, shows off to advantage the blackness of its wings.

As to the fish, they always provoked our admiration when we surprised the secrets of their aquatic life through the open panels. I saw many kinds which I never before had a chance of observing.

I shall notice chiefly ostracions peculiar to the Red Sea, the Indian Ocean, and that part which washes the coast of tropical America. These fishes, like the tortoise, the armadillo, the sea hedgehog, and the crustacea, are protected by a breastplate which is neither chalky nor stony, but real bone. In some it takes the form of a solid triangle, in others of a solid quadrangle. Among the triangular I saw some an inch and a half in length, with wholesome flesh and a delicious flavor; they are brown at the tail, and yellow at the fins, and I recommend their introduction into fresh water, to which a certain number of sea fish easily accustom themselves. I would also mention quadrangular ostracions, having on the back four large tubercles; some dotted over with white spots on the lower part of the body, and which may be tamed like birds; trigons provided with spikes formed by the lengthening of their bony shell, and which, from their strange gruntings, are called "sea pigs"; also dromedaries with large humps in the shape of a cone, whose flesh is very tough and leathery.

I now borrow from the daily notes of Master Conseil. "Certain fish of the genus petrodon peculiar to those seas, with red backs and white chests, which are distinguished by three rows of longitudinal filaments; and some electrical seven inches long, decked in the liveliest colors. Then, specimens of other kinds, some ovoides, resembling an egg of a dark brown color, marked with white bands, and without tails; diodons, real sea porcupines, furnished with spikes, and capable of swelling in such a way as to look like cushions bristling with darts; hippocampi, common to every ocean; some pegasi with lengthened snouts, which their pectoral fins, being much elongated and formed in the shape of wings, allow, if not to fly, at least to shoot into the air; pigeon spatulae, with tails covered with many rings of shall; macrognathi with long jaws, an excellent fish, nine inches long, and bright with most agreeable colors; pale-colored calliomores with rugged heads; and plenty of chaetodons, with long and tubular muzzles, which kill insects by shooting them, as from an air gun, with a single drop of water. These we may call the flycatchers of the seas.

"In the eighty-ninth genus of fishes, classed by Lacepede, belonging to the second lower class of bony, characterized by opercules and bronchial membranes, I remarked the scorpaena, the head of which is furnished with spikes, and which has but one dorsal fin; these creatures are covered, or not, with little shells according to the subclass to which they belong. The second subclass gives us specimens of didactyles fourteen or fifteen inches in length, with yellow rays, and heads of a most fantastic appearance. As to the first subclass, it gives several specimens of that singular-looking fish appropriately called a "sea frog," with large head, sometimes pierced with holes, sometimes swollen with protuberances, bristling with spikes, and covered with tubercles it has irregular and hideous

horns; its body and tail are covered with callosities; its sting makes a dangerous wound; it is both repugnant and horrible to look at."

From January 21 to January 23 the Nautilus went at the rate of two hundred fifty leagues in twenty-four hours, being five hundred forty miles, or twenty-two miles an hour. If we recognized so many different varieties of fish, it was because, attracted by the electric light, they tried to follow us; the greater part, however, were soon distanced by our speed, though some kept their place in the waters of the Nautilus for a time. The morning of January 24, in 12 degrees 5' south latitude, and 94 degrees 33' longitude, we observed Keeling Island, a madrepore formation, planted with magnificent cocoas, and which had been visited by Mr. Darwin and Captain Fitzroy. The Nautilus skirted the shores of this desert island for a little distance. Its nets brought up numerous specimens of polypi, and curious shells of mollusca. Some precious productions of the species of delphinulae enriched the treasures of Captain Nemo, to which I added an astraea punctifera, a kind of parasite polypus often found fixed to a shell. Soon Keeling Island disappeared from the horizon, and our course was directed to the northwest in the direction of the Indian Peninsula.

From Keeling Island our course was slower and more variable, often taking us into great depths. Several times they made use of the inclined planes, which certain internal levers placed obliquely to the water line. In that way we went about two miles, but without ever obtaining the greatest depths of the Indian Sea, which soundings of seven thousand fathoms have never reached. As to the temperature of the lower strata, the thermometer invariably indicated 4 degrees above zero. I only observed that, in the upper regions, the water was always colder in the high levels than at the surface of the sea.

On January 25, the ocean was entirely deserted; the Nautilus passed the day on the surface, beating the waves with its powerful screw, and making them rebound to great height. Who under such circumstances would not have taken it for a gigantic cetacean? Three parts of this day I spent on the platform. I watched the sea.

Nothing on the horizon, till about four o'clock a steamer running west on our counter. Her masts were visible for an instant, but she could not see the Nautilus, being too low in the water. I fancied this steamboat belonged to the P. O. Company, which runs from Ceylon to Sydney, touching at King George's Point and Melbourne.

At five o'clock in the evening, before that fleeting twilight which binds night to day in tropical zones, Conseil and I were astonished by a curious spectacle.

It was a shoal of argonauts traveling along on the surface of the ocean. We could count several hundreds. They belonged to the tubercle kind which are peculiar to the Indian seas.

These graceful mollusks moved backward by means of their locomotive tube, through which they propelled the water already drawn in. Of their eight tentacles, six were elongated, and stretched out floating on the water, while the other two, rolled up flat, were spread to the wind like a light sail. I saw their spiral-shaped and fluted shells, which Cuvier justly compares to an elegant skiff. A boat indeed! It bears the creature which secretes it without its adhering to it.

For nearly an hour the Nautilus floated in the midst of this shoal of mollusks. Then I know not what sudden fright they took. But as if at a signal every sail was furled, the arms folded, the body drawn in, the shells turned over, changing their center of gravity, and the whole fleet disappeared under the waves. Never did the ships of a squadron maneuver with more unity.

At that moment night fell suddenly, and the reeds, scarcely raised by the breeze, lay peaceably under the sides of the Nautilus.

The next day, January 26, we cut the equator at the eighty-second meridian, and entered the northern hemisphere. During the day, a formidable troop of sharks accompanied us, terrible creatures, which multiply in these seas, and make them very dangerous. They were "cestracio philippi" sharks, with brown backs and whitish bellies, armed with eleven rows of teeth-eyed sharks- their throat being marked with a large black spot surrounded with white like an eye. There were also some Isabella sharks, with rounded snouts marked with dark spots. These powerful creatures often hurled themselves at the windows of the saloon with such violence as to make us feel very insecure. At such times Ned Land was no longer master of himself. He wanted to go to the surface and harpoon the monsters, particularly certain smooth hound sharks, whose mouth is studded with teeth like a mosaic; and large tiger sharks nearly six yards long, the last named of which seemed to excite him more particularly. But the Nautilus, accelerating her speed, easily left the most rapid of them behind.

On January 27, at the entrance of the vast Bay of Bengal, we met repeatedly a forbidding spectacle, dead bodies floating on the surface of the water. They were the dead of the Indian villages, carried by the Ganges to the level of the sea, and which the vultures, the only undertakers of the country, had not been able to devour. But the sharks did not fail to help them at their funereal work.

About seven o'clock in the evening, the Nautilus, half immersed, was sailing in a sea of milk. At first sight the ocean seemed lactified. Was it the effect of the lunar rays? No, for the moon, scarcely two days old, was still lying hidden under the horizon in the rays of the sun. The whole sky, though lit by the sidereal rays, seemed black by contrast with the whiteness of the waters.

Conseil could not believe his eyes, and questioned me as to the cause of this strange phenomenon. Happily I was able to answer him.

"It is called a milk sea," I explained, "a large extent of white wavelets often to be seen on the coasts of Amboyna, and in these parts of the sea."

"But, Sir," said Conseil, "can you tell me what causes such an effect? for I suppose the water is not really turned into milk."

"No, my boy; and the whiteness which surprises you is caused only by the presence of myriads of infusoria, a sort of luminous little worm, gelatinous and without color, of the thickness of a hair, and whose length is not more than the seven-thousandth of an inch. These insects adhere to one another sometimes for several leagues."

"Several leagues!" exclaimed Conseil.

"Yes, my boy; and you need not try to compute the number of these infusoria. You will not be able; for, if I am not mistaken, ships have floated on these milk seas for more than forty miles."

Toward midnight the sea suddenly resumed its usual color; but behind us, even to the limits of the horizon, the sky reflected the whitened waves, and for a long time seemed impregnated with the vague glimmerings of an aurora borealis.

CHAPTER II.

# A NOVEL PROPOSAL OF CAPTAIN NEMO'S.

ON JANUARY 28, when at noon the Nautilus came to the surface of the sea, in 9 degrees 4' north latitude, there was land in sight about eight miles to westward. The first thing I noticed was a range of mountains about two thousand feet high, the shapes of which were most capricious. On taking the bearings, I knew that we were nearing the Island of Ceylon, the pearl which hangs from the lobe of the Indian Peninsula.

Captain Nemo and his second appeared at this moment. The captain glanced at the map. Then, turning to me, said:

"The Island of Ceylon, noted for its pearl fisheries. Would you like to visit one of them, M. Aronnax?"

"Certainly, Captain."

"Well, the thing is easy. Though if we see the fisheries, we shall not see the fishermen. The annual exportation has not yet begun. Never mind, I will give orders to make for the Gulf of Manaar, where we shall arrive in the night."

The captain said something to his second, who immediately went out. Soon the Nautilus returned to her native element, and the manometer showed that she was about thirty feet deep.

"Well, Sir," said Captain Nemo, "you and your companions shall visit the Bank of Manaar, and if by chance some fisherman should be there, we shall see him at work."

"Agreed, Captain! By the by, M. Aronnax, you are not afraid of sharks?"

"Sharks!" exclaimed I.

This question seemed a very hard one.

"Well?" continued Captain Nemo.

"I admit, Captain, that I am not yet very familiar with that kind of fish."

"We are accustomed to them," replied Captain Nemo, "and in time you will be too. However, we shall be armed, and on the road we may be able to hunt some of the tribe It is interesting. So, till tomorrow, Sir, and early."

This said in a careless tone, Captain Nemo left the saloon. Now, if you were invited to hunt the bear in the mountains of Switzerland, what would you say? "Very well! tomorrow we will go and hunt the bear." If you were asked to hunt the lion in the plains of Atlas, or the tiger in the Indian jungles, what would you say? "Ha! ha! it seems we are going to hunt the tiger or the lion!" But when you are invited to hunt the shark in its natural element, you would perhaps reflect before accepting the invitation. As for myself, I passed my hand over my forehead, on which stood large drops of cold perspiration. "Let us reflect," said I, "and take our time. Hunting otters in submarine forests, as we did in the Island of Crespo, will pass; but going up and down at the bottom of the sea, where one is almost certain to meet sharks, is quite another thing! I know well that in certain countries, particularly in the Andaman Islands, the negroes never hesitate to attack them with a dagger in one hand and a running noose in the other; but I also know that few who affront those creatures ever return alive. However, I am not a negro, and, if I were, I think a little hesitation in this case would not be ill-timed."

At this moment, Conseil and the Canadian entered, quite composed, and even joyous. They knew not what awaited them.

"Faith, Sir," said Ned Land, "your Captain Nemo- the devil take him!- has just made us a very pleasant offer."

"Ah!" said I, "you know?"

"If agreeable to you, Sir," interrupted Conseil, "the Commander of the Nautilus has invited us to visit the magnificent Ceylon fisheries tomorrow, in your company; he did it kindly, and behaved like a real gentleman."

"He said nothing more?"

"Nothing more, except that he had already spoken to you of this little walk."

"Sir," said Conseil, "would you give us some details of the pearl fishery?"

"As to the fishing itself," I asked, "or the incidents, which?"

"On the fishing," replied the Canadian; "before entering upon the ground, it is as well to know something about it."

"Very well; sit down, my friends, and I will teach you."

Ned and Conseil seated themselves on an ottoman, and the first thing the Canadian asked was,

"Sir, what is a pearl?"

"My worthy Ned," I answered, "to the poet, a pearl is a tear of the sea; to the Orientals, it is a drop of dew solidified; to the ladies, it is a jewel of an oblong shape, of a brilliancy of mother-of-pearl substance, which they wear on their fingers, their necks, or their ears; for the chemist, it is a mixture of phosphate and carbonate of lime, with a little gelatine; and lastly, for naturalists, it is simply a morbid secretion of the organ that produces the mother-of-pearl among certain bivalves."

"Branch of mollusca," said Conseil, "class of acephali, order of testacea."

"Precisely so, my learned Conseil; and, among these testacea, the ear shell, the tridacnae, the turbots, in a word, all those which secrete mother-of-pearl, that is, the blue, bluish, violet, or white substance which lines the interior of their shells, are capable of producing pearls."

"Mussels, too?" asked the Canadian.

"Yes, mussels of certain waters in Scotland, Wales, Ireland, Saxony, Bohemia, and France."

"Good! For the future I shall pay attention," replied the Canadian.

"But," I continued, "the particular mollusk which secretes the pearl is the pearl oyster, the meleagrina margaritifera, that precious pintadine. The pearl is nothing but a nacreous formation, deposited in a globular form, either adhering to the oyster shell, or buried in the folds of the creature. On the shell it is fast; in the flesh it is loose; but always has for a kernel a small hard substance, maybe a barren egg, maybe a grain of sand, around which the pearly matter deposits itself year after year successively, and by thin concentric layers."

"Are many pearls found in the same oyster?" asked Conseil.

"Yes, my boy. There are some pintadines a perfect casket. One oyster has been mentioned, though I allow myself to doubt it, as having contained no less than a hundred fifty sharks."

"A hundred fifty sharks!" exclaimed Ned Land.

"Did I say sharks?" said I, hurriedly. "I meant to say a hundred fifty pearls. Sharks would not be sense."

"Certainly not," said Conseil; "but will you tell us now by what means they extract these pearls?"

"They proceed in various ways. When they adhere to the shell, the fishermen often pull them off with pincers; but the most common way is to lay the pintadines on mats of the seaweed which covers the banks. Thus they die in the open air; and at the end of ten days they are in a forward state of decomposition. They are then plunged into large reservoirs of sea water; then they are opened and washed. Now begins the double work of the sorters. First they separate the layers of pearl, known in commerce by the name of artificial whites and artificial blacks, which are delivered in boxes of two hundred fifty and three hundred pounds each. Then they take the parenchyma of the oyster, boil it, and pass it through a sieve in order to extract the very smallest pearls."

"The price of these pearls varies according to their size?" asked Conseil.

"Not only according to their size," I answered, "but also according to their shape, their water (that is, their color), and

their luster; that is, that bright and diapered sparkle which makes them so charming to the eye. The most beautiful are called virgin pearls or paragons. They are formed alone in the tissue of the mollusk, are white, often opaque, and sometimes have the transparency of an opal; they are generally round or oval. The round are made into bracelets, the oval into pendants; and, being more precious, are sold singly. Those adhering to the shell of the oyster are more irregular in shape, and are sold by weight. Lastly, in a lower order, are classed those small pearls known under the name of seed pearls; they are sold by measure, and are especially used in embroidery for church ornaments."

"But," said Conseil, "is this pearl fishing dangerous?"

"No," I answered quickly; "particularly if certain precautions are taken."

"What does one risk in such a calling?" said Ned Land; the swallowing of some mouthfuls of sea water?

"As you say, Ned. By the by," said I, trying to take Captain Nemo's careless tone, "are you afraid of sharks, brave Ned?"

"I!" replied the Canadian; "a harpooner by profession? It is my trade to make light of them."

"But," said I, "it is not a question of fishing for him with an iron swivel, hoisting them into the vessel, cutting off their tails with a blow of a chopper, ripping them up, and throwing their heart into the sea!"

"Then, it is a question of"-

"Precisely."

"In the water?"

"In the water."

"Faith, with a good harpoon! You know, Sir, these sharks are ill-fashioned beasts. They must turn on their bellies to seize you, and in that time"-

Ned Land had a way of saying "seize," which made my blood run cold.

"Well, and you, Conseil, what do you think of sharks?"

"Me!" said Conseil. "I will be frank, Sir."

"So much the better," thought I.

"If you mean to face the sharks, I do not see why your faithful servant should not face them with you."

CHAPTER III.

## A PEARL OF TEN MILLIONS.

THE next morning at four o'clock I was awakened by the steward, whom Captain Nemo had placed at my service. I rose hurriedly, dressed, and went into the saloon.

Captain Nemo was awaiting me.

"M. Aronnax," said he, "are you ready to start?"

"I am ready."

"Then, please to follow me."

"And my companions, Captain?"

"They have been told, and are waiting."

"Are we not to put on our diver's suits?" I asked.

"Not yet. I have not allowed the Nautilus to come too near this coast, and we are some distance from the Manaar Bank; but the boat is ready, and will take us to the exact point of disembarking, which will save us a long way. It carries our diving apparatus, which we will put on when we begin our submarine journey."

Captain Nemo conducted me to the central staircase, which led on to the platform. Ned and Conseil were ready there, delighted at the idea of the "pleasure party" which was preparing. Five sailors from the Nautilus, with their oars, waited in the boat, which had been made fast against the side.

The night was still dark. Layers of clouds covered the sky, allowing but few stars to be seen. I looked on the side where the land lay, and saw nothing but a dark line inclosing three parts of the horizon, from southwest to northwest. The Nautilus, having returned during the night up the western coast of Ceylon, was now west of the bay, or rather gulf, formed by the mainland and the island of Manaar. There, under the dark waters, stretched the pintadine bank, an inexhaustible field of pearls, the length of which is more than twenty miles.

Captain Nemo, Ned Land, Conseil, and I, took our places in the stern of the boat. The master went to the tiller; his four companions leaned on their oars, the painter was cast off, and we sheered off.

The boat went toward the south; the oarsmen did not hurry. I noticed that their strokes, strong in the water, only followed each other every ten seconds, according to the method generally adopted in the navy. While the craft was running by its own velocity, the liquid drops struck the dark depths of the waves crisply like spats of melted lead. A little billow, spreading wide, gave a slight roll to the boat, and some samphire reeds flapped before it.

We were silent. Of what was Captain Nemo thinking? Perhaps of the land he was approaching, and which he found too near to him, contrary to the Canadian's opinion, who thought it too far off. As to Conseil, he was merely there from curiosity.

About half after five, the first tints on the horizon showed the upper line of coast more distinctly. Flat enough in the east, it rose a little to the south. Five miles still lay between us, and it was indistinct owing to the mist on the water. At six o'clock it became suddenly daylight, with that rapidity peculiar to tropical regions, which know neither dawn nor twilight. The solar rays pierced the curtain of clouds, piled up on the eastern horizon, and the radiant orb rose rapidly. I saw land distinctly, with a few trees scattered here and there. The boat neared Manaar Island, which was rounded to the south. Captain Nemo rose from his seat and watched the sea.

At a sign from him the anchor was dropped, but the chain scarcely ran, for it was little more than a yard deep, and this spot was one of the highest points of the bank of pintadines.

"Here we are, M. Aronnax," said Captain Nemo. "You see that inclosed bay? Here, in a month, will be assembled the numerous fishing boats of the exporters, and these are the waters their divers will ransack so boldly. Happily, this bay is well situated for that kind of fishing. It is sheltered from the strongest winds; the sea is never very rough here, which makes it favorable for the diver's work. We will now put on our suits, and begin our walk."

I did not answer, and while watching the suspected waves, began with the help of the sailors to put on my heavy sea outfit. Captain Nemo and my companions were also dressing. None of the Nautilus men were to accompany us on this new excursion.

Soon we were enveloped to the throat in India-rubber clothing, the air apparatus fixed to our backs by braces. As to the Ruhmkorff apparatus, there was no necessity for it. Before putting my head into the copper cap, I had asked the question of the captain.

"They would be useless," he replied. "We are going to no great depth, and the solar rays will be enough to light our walk. Besides, it would not be prudent to carry the electric light in these waters; its brilliancy might attract some of the dangerous inhabitants of the coast most inopportunely."

As Captain Nemo pronounced these words, I turned to Conseil and Ned Land. But my two friends had already incased their heads in the metal cap, and they could neither hear nor answer.

One last question remained to ask of Captain Nemo.

"And our arms?" asked I; "our guns?"

"Guns! what for? Do not mountaineers attack the bear with a dagger in their hand, and is not steel surer than lead? Here is a strong blade; put it in your belt, and we start."

I looked at my companions; they were armed like us, and, more than that, Ned Land was brandishing an enormous harpoon, which he had placed in the boat before leaving the Nautilus.

Then, following the captain's example, I allowed myself to be dressed in the heavy copper helmet, and our reservoirs of air were at once in activity. An instant after we were landed, one after the other, in about two yards of water upon an even sand. Captain Nemo made a sign with his hand, and we followed him by a gentle declivity till we disappeared under the waves.

Over our feet, like coveys of snipe in a bog, rose shoals of fish, of the genus monoptera, which have no other fins but their tail. I recognized the Javanese, a real serpent two and a half feet long, of a livid color underneath, and which might easily be mistaken for a conger eel if it was not for the golden stripes on its sides. In the genus stromateus, whose bodies are very flat and oval, I saw some of the most brilliant colors, carrying their dorsal fin like a scythe; an excellent eating fish, which, dried and pickled, is known by the name of Karawade; then some tranquebars, belonging to the genus apsiphoroides, whose body is covered with a shell cuirass of eight longitudinal plates.

The heightening sun lit the mass of waters more and more. The soil changed by degrees. To the fine sand succeeded a perfect causeway of boulders, covered with a carpet of mollusks and zoophytes. Among the specimens of these branches I noticed some placenae, with thin unequal shells, a kind of ostracion peculiar to the Red Sea and the Indian Ocean; some orange lucinae with rounded shells; rockfish three and a half feet long, which raised themselves under the waves like hands ready to seize one. There were also some panopyres, slightly luminous; and lastly, some oculines, like magnificent fans, forming one of the richest vegetations of these seas.

In the midst of these living plants, and under the arbors of the hydrophytes, were layers of clumsy articulates, particularly some raninae, whose carapace formed a slightly rounded triangle; and some horrible-looking parthenopes.

At about seven o'clock we found ourselves at last surveying the oyster banks, on which the pearl oysters are reproduced by millions.

Captain Nemo pointed with his hand to the enormous heap of oysters; and I could well understand that this mine was inexhaustible, for Nature's creative power is far beyond man's instinct of destruction. Ned Land, faithful to his instinct, hastened to fill a net which he carried by his side with some of the finest specimens. But we could not stop. We must follow the captain, who seemed to guide himself by paths known only to himself. The ground was sensibly rising, and sometimes, on holding up my arm, it was above the surface of the sea. Then the level of the bank would sink capriciously. Often we rounded high rocks scarped into pyramids. In their dark fissures huge crustacea, perched upon their high claws like some war machine, watched us with fixed eyes, and under our feet crawled various kinds of annelides.

At this moment there opened before us a large grotto, dug in a picturesque heap of rocks, and carpeted with all the thick warp of the submarine flora. At first it seemed very dark to me. The solar rays

seemed to be extinguished by successive gradations, until its vague transparency became nothing more than drowned light. Captain Nemo entered; we followed. My eyes soon accustomed themselves to this relative state of darkness. I could distinguish the arches springing capriciously from natural pillars, standing broad upon their granite base, like the heavy columns of Tuscan architecture. Why had our incomprehensible guide led us to the bottom of this submarine crypt? I was soon to know. After descending a rather sharp declivity, our feet trod the bottom of a kind of circular pit. There Captain Nemo stopped, and with his hand indicated an object I had not yet perceived. It was an oyster of extraordinary dimensions, a gigantic tridacne, a goblet which could have contained a whole lake of holy water, a basin the breadth of which was more than two yards and a half, and consequently larger than that ornamenting the saloon of the Nautilus. I approached this extraordinary mollusk. It adhered by its byssus to a table of granite, and there, isolated, it developed itself in the calm waters of the grotto. I estimated the weight of this tridacne at 600 pounds. Such an oyster would contain thirty pounds of meat; and one must have the stomach of a Gargantua, to demolish some dozens of them.

Captain Nemo was evidently acquainted with the existence of this bivalve, and seemed to have a particular motive in verifying the actual state of this tridacne. The shells were a little open; the captain came near and put his dagger between to prevent them from closing; then with his hand he raised the membrane with its fringed edges, which formed a cloak for the creature. There, between the folded plaits, I saw a loose pearl, whose size equalled that of a coconut. Its globular shape, perfect clearness, and admirable luster made it altogether a jewel of inestimable value. Carried away by my curiosity I stretched out my hand to seize it, weigh it, and touch it; but the captain stopped me, made a sign of refusal, and quickly withdrew his dagger, and the two shells closed suddenly. I then understood Captain Nemo's intention. In leaving this pearl hidden in the mantle of the tridacne, he was allowing it to grow slowly. Each year the secretions of the mollusk would add new concentric circles. I estimated its value at over two million dollars at least.

After ten minutes Captain Nemo stopped suddenly. I thought he had halted previously to returning. No; by a gesture he bade us crouch beside him in a deep fracture of the rock, his hand pointed to one part of the liquid mass, which I watched attentively.

About five yards from me a shadow appeared, and sank to the ground. The disquieting idea of sharks shot through my mind, but I was mistaken; and once again it was not a monster of the ocean that we had anything to do with.

It was a man, a living man, an Indian, a fisherman, a poor devil who, I suppose, had come to glean before the harvest. I could see the bottom of his canoe anchored some feet above his head. He dived and went up successively. A stone held between his feet, cut in the shape of a sugar loaf, while a rope fastened him to his boat, helped him to descend more rapidly. This was all his apparatus. Reaching the bottom about five yards deep, he went on his knees and filled his bag with oysters picked up at random. Then he went up, emptied it, pulled up his stone, and began the operation once more, which lasted thirty seconds.

The diver did not see us. The shadow of the rock hid us from sight. And how should this poor Indian ever dream that men, beings like himself, should be there under the water watching his movements, and losing no detail of the fishing? Several times he went up in this way, and dived again. He did not carry away more than ten at each plunge, for he was obliged to pull them from the bank

to which they adhered by means of their strong byssus. And how many of those oysters for which he risked his life had no pearl in them! I watched him closely, his maneuvers were regular; and, for the space of half an hour, no danger appeared to threaten him.

I was beginning to accustom myself to the sight of this interesting fishing, when suddenly, as the Indian was on the ground, I saw him make a gesture of terror, rise, and make a spring to return to the surface of the sea.

I understood his dread. A gigantic shadow appeared just above the unfortunate diver. It was a shark of enormous size advancing diagonally, his eyes on fire, and his jaws open. I was mute with horror, and unable to move.

The voracious creature shot toward the Indian, who threw himself on one side in order to avoid the shark's fins; but not its tail, for it struck his chest, and stretched him on the ground.

This scene lasted but a few seconds: the shark returned, and, turning on his back, prepared himself for cutting the Indian in two, when I saw Captain Nemo rise suddenly, and then, dagger in hand, walk straight to the monster, ready to fight face to face with him. The very moment the shark was going to snap the unhappy fisherman in two, he perceived his new adversary, and turning over, made straight toward him.

I can still see Captain Nemo's position. Holding himself well together, he waited for the shark with admirable coolness; and, when it rushed at him, threw himself on one side with wonderful quickness, avoiding the shock, and burying his dagger deep into its side. But it was not all over. A terrible combat ensued.

The shark had seemed to roar, if I might say so. The blood rushed in torrents from its wound. The sea was dyed red, and through the opaque liquid I could distinguish nothing more. Nothing more until the moment when, like lightning, I saw the undaunted captain hanging on to one of the creature's fins, struggling, as it were, hand to hand With the monster, and dealing successive blows at his enemy, yet still unable to give a decisive one.

The shark's struggles agitated the water with such fury that the rocking threatened to upset me.

I wanted to go to the captain's assistance, but, nailed to the spot with horror, I could not stir.

I saw the haggard eye; I saw the different phases of the fight. The captain fell to the earth, upset by the enormous mass which leant upon him. The shark's jaws opened wide, like a pair of factory shears, and it would have been an over with the captain; but, quick as thought, harpoon in hand, Ned Land rushed toward the shark and struck it with its sharp point.

The waves were impregnated with a mass of blood. They rocked under the shark's movements, which beat them with indescribable fury. Ned Land had not missed his aim. It was the monster's death rattle. Struck to the heart, it struggled in dreadful convulsions, the shock of which overthrew Conseil.

But Ned Land had disentangled the captain, who, getting up without any wound, went straight to the Indian, quickly, cut the cord which held him to his stone, took him in his arms, and, with a sharp blow of his heel, mounted to the surface.

We all three followed in a few seconds, saved by a miracle, and reached the fisherman's boat.

Captain Nemo's first care was to recall the unfortunate man to life again. I did not think he could succeed. I hoped so, for the poor creature's immersion was not long; but the blow from the shark's tail might have been his deathblow.

Happily, with the captain's and Conseil's sharp friction, I saw

consciousness return by degrees. He opened his eyes. What was his surprise, his terror even, at seeing four great copper heads leaning over him! And, above all, what must he have thought when Captain Nemo, drawing from the pocket of his suit a bag of pearls, placed it in his hand! This munificent charity from the man of the waters to the poor Singhalese was accepted with a trembling hand. His wondering eyes showed that he knew not to what superhuman beings he owed both fortune and life.

At a sign from the captain we regained the bank, and following the road already traversed, came in about half an hour to the anchor which held the canoe of the Nautilus to the earth.

Once on board, we each, with the help of the sailors, got rid of the heavy copper helmet.

Captain Nemo's first word was to the Canadian.

"Thank you, Master Land," said he.

"It was in revenge, Captain," replied Ned Land. "I owed you that." A ghastly smile passed across the captain's lips, and that was all.

"To the Nautilus," said he.

The boat flew over the waves. Some minutes after, we met the shark's dead body floating. By the black marking of the extremity of its fins, I recognized the terrible melanopteron of the Indian Seas, of the species of shark properly so called. It was more than twenty-five feet long; its enormous mouth occupied one third of its body. It was an adult, as was known by its six rows of teeth placed in an isosceles triangle in the upper jaw.

Conseil looked at it with scientific interest, and I am sure that he placed it, and not without reason, in the cartilaginous class, of the chondropterygian order, with fixed gills, of the selacian family, in the genus of the sharks.

While I was contemplating this inert mass, a dozen of these voracious beasts appeared round the boat; and, without noticing us, threw themselves upon the dead body and fought with one another for the pieces.

At half after eight we were again on board the Nautilus. There I reflected on the incidents which had taken place in our excursion to the Manaar Bank.

Two conclusions I must inevitably draw from it- one bearing upon the unparalleled courage of Captain Nemo, the other upon his devotion to a human being, a representative of that race from which he fled beneath the sea. Whatever he might say, this strange man had not yet succeeded in entirely crushing his heart.

When I made this observation to him, he answered in a slightly moved tone:

"That Indian, Sir, is an inhabitant of an oppressed country; and I am still, and shall be, to my last breath, one of them!"

CHAPTER IV.

### THE RED SEA.

IN THE course of the day of January 29, the Island of Ceylon disappeared under the horizon, and the Nautilus, at a speed of twenty miles an hour, slid into the labyrinth of canals which separate the Maldives from the Laccadives. It coasted even the Island of Kiltan, a land originally madreporic, discovered by Vasco da Gama in 1499, and one of the nineteen principal islands of the Laccadive Archipelago, situated between 10 degrees and 14 degrees 30' north latitude, and 69 degrees 50' 72" east longitude.

We had made 16,220 miles or 7,500 (French) leagues from our starting point in the Japanese Seas.

The next day (January 30), when the Nautilus went to the surface of the ocean, there was no land in sight. Its course was N.N.E., in the direction of the Sea of Oman, between Arabia and the Indian Peninsula, which serves as an outlet to the Persian Gulf. It was evidently a block without any possible egress. Where was Captain Nemo taking us? I could not say. This, however, did not satisfy the Canadian, who that day came to me asking where we were going

"We are going where our captain's fancy takes us, Master Ned."

"His fancy cannot take us far, then," said the Canadian. "The Persian Gulf has no outlet; and if we do go in, it will not be long before we are out again."

"Very well, then, we will come out again, Master Ned; and if, after the Persian Gulf, the Nautilus would like to visit the Red Sea, the Straits of Bab-el-mandeb are there to give us entrance."

"I need not tell you, sir," said Ned Land, "that the Red Sea is as much closed as the Gulf, as the Isthmus of Suez is not yet cut; and if it was, a boat as mysterious as ours would not risk itself in a canal cut with sluices. And again, the Red Sea is not the road to take us back to Europe."

"But I never said we were going back to Europe."

"What do you suppose, then?"

"I suppose that, after visiting the curious coasts of Arabia and Egypt, the Nautilus will go down the Indian Ocean again, perhaps cross the Channel of Mozambique, perhaps off the Mascarenhas, so as to gain the Cape of Good Hope."

"And at the Cape of Good Hope?" asked the Canadian, with peculiar emphasis.

"Well, we shall penetrate into that Atlantic which we do not yet know. Ah! friend Ned, you are getting tired of this journey under the sea; you are surfeited with the incessantly varying spectacle of submarine wonders. For my part, I shall be sorry to see the end of a voyage which it is given to so few men to make."

For four days, till February 3, the Nautilus scoured the Sea of Oman, at various speeds and at various depths. It seemed to go at random, as if hesitating as to which road it should follow, but we never passed the tropic of Cancer.

In quitting this sea we sighted Maskat for an instant, one of the most important towns of the country of Oman. I admired its strange aspect, surrounded by black rocks upon which its white houses and forts stood in relief. I saw the rounded domes of its mosques, the elegant points of its minarets, its fresh and verdant terraces. But it was only a vision! the Nautilus soon sank under the waves of that part of the sea.

We passed along the Arabian coast of Mahrah and Hadramaut, for a distance of six miles, its undulating line of mountains being occasionally relieved by some ancient ruin. On February 5 we at last entered the Gulf of Aden, a perfect funnel introduced into the neck of Bab-el-mandeb, through which the Indian waters entered the Red Sea.

On February 6, the Nautilus floated in sight of Aden, perched upon a promontory which a narrow isthmus joins to the mainland, a kind of inaccessible Gibraltar, the fortifications of which were rebuilt by the English after taking possession in 1839. I caught a glimpse of the octagon minarets of this town, which was at one time, according to the historian Edrisi, the richest commercial magazine on the coast.

I certainly thought that Captain Nemo, arrived. at this point, would back out again; but I was mistaken, for he did no such thing, much to my surprise.

The next day, February 7, we entered the Straits of Bab-el-mandeb, the name of which, in the Arab tongue, means "The gate of tears."

To twenty miles in breadth, it is only thirty-two in length. And

for the Nautilus, starting at full speed, the crossing was scarcely the work of an hour. But I saw nothing, not even the Island of Perim, with which the British Government has fortified the position of Aden. There were too many English or French steamers of the line of Suez to Bombay, Calcutta to Melbourne, and from Bourbon to the Mauritius, furrowing this narrow passage, for the Nautilus to venture to show itself. So it remained prudently below. At last, about noon, we were in the waters of the Red Sea.

I would not even seek to understand the caprice which had decided Captain Nemo upon entering the gulf. But I quite approved of the Nautilus entering it. Its speed was lessened; sometimes it kept on the surface, sometimes it dived to avoid a vessel, and thus I was able to observe the upper and lower parts of this curious sea.

On February 8, at the first dawn of day, Mocha came in sight, now a ruined town, whose walls would fall at a gunshot, yet which shelters here and there some verdant date trees; once an important city, containing six public markets, and twenty-six mosques, and whose walk, defended by fourteen forts, formed a girdle of two miles in circumference.

The Nautilus then approached the African shore, where the depth of the sea was greater. There, between two waters clear as crystal, through the open panels we were allowed to contemplate the beautiful bushes of brilliant coral, and large blocks of rock clothed with a splendid fur of green algae and fuci. What an indescribable spectacle, and what variety of sites and landscapes along these sand banks and volcanic islands which bound the Libyan coast! But where these shrubs appeared in all their beauty was on the eastern coast, which the Nautilus soon gained. It was on the coast of Tehama, for there not only did this display of zoophytes flourish beneath the level of the sea, but they also formed picturesque interlacings which unfolded themselves about sixty feet above the surface, more capricious but less highly colored than those whose freshness was kept up by the vital power of the waters.

What charming hours I passed thus at the window of the saloon! What new specimens of submarine flora and fauna did I admire under the brightness of our electric lantern!

There grew sponges of all shapes, pediculated, foliated, globular, and digital. They certainly justified the names of baskets, cups, distaffs, elk's horns, lion's feet, peacock's tails, and Neptune's gloves, which have been given to them by the fishermen, greater poets than the savants.

Other zoophytes which multiply near the sponges consist principally of medusae of a most elegant kind. The mollusks were represented by varieties of the calmar (which, according to Orbigny, are peculiar to the Red Sea); and reptiles by the virgata turtle, of the genus of cheloniae, which furnished a wholesome and delicate food for our table.

As to the fish, they were abundant, and often remarkable. The following are those which the nets of the Nautilus brought more frequently on board:

Rays of a red-brick color, with bodies marked with blue spots, and easily recognizable by their double spikes; some superb caranxes, marked with seven transverse bands of, jet-black, blue and yellow fins, and gold and silver scales; mullets with yellow heads; gobies, and a thousand other species, common to the ocean which we had just traversed.

On February 9, the Nautilus floated in the broadest part of the Red Sea, which is comprised between Suakin, on the west coast, and Koomfidah, on the east coast, with a diameter of ninety miles.

That day at noon, after the bearings were taken, Captain Nemo

mounted the platform, where I happened to be, and I was determined not to let him go down again without at least pressing him regarding his ulterior projects. As soon as he saw me he approached, and graciously offered me a cigar.

"Well, Sir, does this Red Sea please you? Have you sufficiently observed the wonders it covers, its fishes, its zoophytes, its parternes of sponges, and its forests of coral? Did you catch a glimpse of the towns on its borders?"

"Yes, Captain Nemo," I replied; "and the Nautilus is wonderfully fitted for such a study. Ah! it is an intelligent boat!"

"Yes, Sir, intelligent and invulnerable. It fears neither the terrible tempests of the Red Sea, nor its currents, nor its sand banks."

"Certainly," said I, "this sea is quoted as one of the worst, and in the time of the ancients, if I am not mistaken, its reputation was detestable."

"Detestable, M. Aronnax. The Greek and Latin historians do not speak favorably of it, and Strabo says it is very dangerous during the Etesian winds, and in the rainy season. The Arabian Edrisi portrays it under the name of the Gulf of Colzoum, and relates that vessels perished there in great numbers on the sand banks, and that no one would risk sailing in the night. It is, he pretends, a sea subject to fearful hurricanes, strewn with inhospitable islands, and 'which offers nothing good either on its surface or in its depths.' Such, too, is the opinion of Arrian, Agatharcides, and Artemidorus."

"One may see," I replied, "that these historians never sailed on board the Nautilus."

"Just so," replied the captain, smiling; "and in that respect moderns are not more advanced than the ancients. It required many ages to find out the mechanical power of steam. Who knows if, in another hundred years, we may not see a second Nautilus? Progress is slow, M. Aronnax."

"It is true," I answered; "your boat is at least a century before its time, perhaps an era. What a misfortune that the secret of such an invention should die with its inventor!"

Captain Nemo did not reply. After some minutes' silence he continued-

"You were speaking of the opinions of ancient historians upon the dangerous navigation of the Red Sea."

"It is true, " said I; "but were not their fears exaggerated?" "Yes and no, M. Aronnax," replied Captain Nemo, who seemed to know the Red Sea by heart. "That which is no longer dangerous for a modern vessel, well rigged, strongly built, and master of its own course, thanks to obedient steam, offered all sorts of perils to the ships of the ancients. Picture to yourself those first navigators venturing in ships made of planks sewn with the cords of the palm tree, saturated with the grease of the sea dog, and covered with powdered resin They had not even instruments wherewith to take their bearings, and they went by guess amongst currents of which they scarcely knew anything. Under such conditions shipwrecks were, and must have, been, numerous. But in our time, steamers running between Suez and the South Seas have nothing more to fear from the fury of this gulf, in spite of contrary trade winds. The captain and passengers do not prepare for their departure by offering propitiatory sacrifices: and, on their return, they no longer go ornamented with wreaths and gilt fillets to thank the gods in the neighboring temple."

"I agree with you," said I; "and steam seems to have killed all gratitude in the hearts of sailors. But, Captain, since you seem to have especially studied this sea, can you tell me the origin its name?"

"Willingly."

"This fanciful writer pretends that its name was given to it after the passage of the Israelites, when Pharaoh perished in the waves which closed at the voice of Moses."

"A poet's explanation, Captain Nemo," I replied; "but I cannot content myself with that. I ask you for your personal opinion."

"Here it is, M. Aronnax. According to my idea, we must see in this appellation of the Red Sea a translation of the Hebrew word 'Edom'; and if the ancients gave it that name, it was on account of the particular color of its waters."

"But up to this time I have seen nothing but transparent waves and without any particular color."

"Very likely; but as we advance to the bottom of the gulf, you will see this singular appearance. I remember seeing the Bay of Tor entirely red, like a sea of blood."

"And you attribute this color to the presence of a microscopic seaweed?"

"Yes; it is a mucilaginous purple matter, produced by the restless little plants known by the name of trichodesmia, and of which it requires 40,000 to occupy the space of a square .04 of an inch. Perhaps we shall meet some when we get to Tor."

"So, Captain Nemo, it is not the first time you have overrun the Red Sea on board the Nautilus?"

"No, Sir."

"As you spoke a while ago of the passage of the Israelites, and of the catastrophe to the Egyptians, I will ask whether you have met with traces under the water of this great historical fact?"

"No, Sir; and for a very good reason."

"What is it?"

"It is, that the spot where Moses and his people passed is now so blocked up with sand, that the camels can barely bathe their legs there. You can well understand that there would not be water enough for my Nautilus."

"And the spot?" I asked.

"The spot is situated a little above the Isthmus of Suez, in the arm which formerly made a deep estuary, when the Red Sea extended to the Salt Lakes. Now, whether this passage were miraculous or not, the Israelites, nevertheless, crossed there to reach the Promised Land, and Pharaoh's army perished precisely on that spot and I think that excavations made in the middle of the sand would bring to light a large number of arms and instruments of Egyptian origin."

"That is evident," I replied; "and for the sake of archaeologists let us hope that these excavations will be made sooner or later, when new towns are established on the isthmus, after the construction of the Suez Canal; a canal, however, very useless to a vessel like the Nautilus."

"Very likely; but useful to the whole world," said Captain Nemo. "The ancients well understood the utility of a communication between the Red Sea and the Mediterranean for their commercial affairs: but they did not think of digging a canal direct, and took the Nile as an intermediate. Very probably the canal which united the Nile to the Red Sea was begun by Sesostris, if we may believe tradition. One thing is certain, that in the year 615 before Jesus Christ, Necos undertook the works of an alimentary canal to the waters of the Nile, across the plain of Egypt, looking toward Arabia, It took four days to go up this canal, and it was so wide that two triremes could go abreast. It was carried on by Darius, the son of Hystaspes,

and probably finished by Ptolemy II. Strabo saw it navigated; but its decline from the point of departure, near Bubastes, to the Red Sea was so slight, that it was only navigable for a few months in the year. This canal answered all commercial purposes to the age of Antoninus, when it was abandoned and blocked up with sand. Restored by order of the Caliph Omar, it was definitively destroyed in 761 or 762 by Caliph Al-Mansor, who wished to prevent the arrival of provisions to Mohammed-ben-Abdallah, who had revolted against him. During the expedition into Egypt, your General Bonaparte discovered traces of the works in the Desert of Suez; and surprised by the tide, he nearly perished before regaining Hadjaroth, at the very place where Moses had encamped three thousand years before him."

"Well, Captain, what the ancients dared not undertake, this junction between the two seas, which will shorten the road from Cadiz to India, M. de Lesseps has succeeded in doing; and before long he will have changed Africa into an immense island."

"Yes, M. Aronnax; you have the right to be proud of your countryman. Such a man brings more honor to a nation than great captains. He began, like so many others, with disgust and rebuffs; but he has triumphed, for he has the genius of will. And it is sad to think that a work like that, which ought to have been an international work, and which would have sufficed to make a reign illustrious, should have succeeded by the energy of one man. All honor to M. de Lesseps!"

"Yes, honor to the great citizen!" I replied, surprised by the manner in which Captain Nemo had just spoken.

"Unfortunately," he continued, "I cannot take you through the Suez Canal; but you will be able to see the long jetty of Port Said after tomorrow, when we shall be in the Mediterranean."

"The Mediterranean!" I exclaimed.

"Yes, Sir; does that astonish you?"

"What astonishes me is to think that we shall be there the day after tomorrow."

"Indeed?"

"Yes, Captain, although by this time I ought to have accustomed myself to be surprised at nothing since I have been on board your boat."

"But the cause of this surprise?"

"Well I it is the fearful speed you will have to put on the Nautilus, if the day after tomorrow she is to be in the Mediterranean, having made the round of Africa, and doubled the Cape of Good Hope!"

"Who told you that she would make the round of Africa, and double the Cape of Good Hope, Sir?"

"Well, unless the Nautilus sails on dry land, and passes above the isthmus"-

"Or beneath it, M. Aronnax."

"Beneath it?"

"Certainly," replied Captain Nemo, quietly. "A long time ago Nature made under this tongue of land what man has this day made on its surface."

"What! such a passage exists?"

"Yes; a subterranean passage, which I have named the Arabian Tunnel. It takes us beneath Suez, and opens into the Gulf of Pelusium."

"But this isthmus is composed of nothing but quicksands?"

"To a certain depth. But at fifty-five yards only, there is a solid layer of rock."

"Did you discover this passage by chance?" I asked, more and more surprised.

"Chance and reasoning, Sir; and by reasoning even more than by

chance. Not only does this passage exist, but I have profited by it several times. Without that I should not have ventured this day into the impassable Red Sea. I noticed that in the Red Sea and in the Mediterranean there existed a certain number of fishes of a kind perfectly identical- ophidia, fiatoles, girelles, and exocoeti. Certain of that fact, I asked myself was it possible that there was no communication between the two seas? If there was, the subterranean current must necessarily run from the Red Sea to the Mediterranean, from the sole cause of difference of level. I caught a large number of fishes in the neighborhood of Suez. I passed a copper ring through their tails, and threw them back into the sea. Some months later, on the coast of Syria, I caught some of my fish ornamented with the ring. Thus the communication between the two was proved. I then sought for it with my Nautilus; I discovered it, ventured into it, and before long, Sir, you too will have passed through my Arabian tunnel!" CHAPTER V.

#### THE ARABIAN TUNNEL.

THAT same evening, in 21 degrees 30' north latitude, the Nautilus floated on the surface of the sea, approaching the Arabian coast. I saw Djeddah, the most important countinghouse of Egypt, Syria, Turkey, and India. I distinguished clearly enough its buildings, the vessels anchored at the quays, and those whose draught of water obliged them to anchor in the roads. The sun, rather low on the horizon, struck full on the houses of the town, bringing out their whiteness. Outside, some wooden cabins, and some made of reeds, showed the quarter inhabited by the Bedouins. Soon Djeddah was shut out from view by the shadows of night, and the Nautilus found herself under water slightly phosphorescent.

The next day, February 10, we sighted several ships running to windward. The Nautilus returned to its submarine navigation; but at noon, when her bearings were taken, the sea being deserted, she rose again to her water line.

Accompanied by Ned and Conseil, I seated myself on the platform. The coast on the eastern side looked like a mass faintly printed upon a damp fog.

We were leaning on the sides of the pinnace, talking of one thing and another, when Ned Land, stretching out his hand toward a spot on the sea, said:

"Do you see anything there?"

"No, Ned," I replied; "but I have not your eyes, you know."

"Look well," said Ned, "there, on the starboard beam, about the height of the lantern! Do you not see a man which seems to move?"

"Certainly," said I, after close attention; "I see something like a long black body on the top of the water."

And certainly before long the black object was not more than a mile from us. It looked like a great sand bank deposited in the open sea. It was a gigantic dugong!

Ned Land looked eagerly. His eyes shone with covetousness at the sight of the animal. His hand seemed ready to harpoon it. One would have thought he was awaiting the moment to throw himself into the sea, and attack it in its element.

At this instant Captain Nemo appeared on the platform. He saw the dugong, understood the Canadian's attitude, and addressing him, said-

"If you held a harpoon in your hand just now, Master Land, would it not burn your hand?"

"Just so, Sir."

"And you would not be sorry to go back, for one day, to your trade

of a fisherman, and add this cetacean to the list of those you have already killed?"

"I should not, Sir."

"Well you can try."

"Thank you, Sir," said Ned Land, his eyes flaming.

"Only," continued the captain, "I advise you for your own sake not to miss the creature."

"Is the dugong dangerous to attack?" I asked, in spite of the Canadian's shrug of the shoulders.

"Yes," replied the captain; "sometimes the animal turns upon its assailants and overturns their boat. But for Master Land, this danger is not to be feared. His eye is prompt, his arm sure."

At this moment seven men of the crew, mute and immovable as ever, mounted the platform. One carried a harpoon and a line similar to those employed in catching whales. The pinnace was lifted from the bridge, pulled from its socket, and let down into the sea. Six oarsmen took their seats, and the coxswain went to the tiller. Ned, Conseil, and I went to the back of the boat.

"You are not coming, Captain?" I asked.

"No, Sir; but I wish you good sport."

The boat put off, and lifted by the six rowers, drew rapidly toward the dugong, which floated about two miles from the Nautilus.

Arrived some cables' length from the cetacean, the speed slackened, and the oars dipped noiselessly into the quiet waters. Ned Land, harpoon in hand, stood in the fore part of the boat. The harpoon used for striking the whale is generally attached to a very long cord, which runs out rapidly as the wounded creature draws it after him. But here the cord was not more than ten fathoms long, and the extremity was attached to a small barrel, which, by floating, was to show the course the dugong took under the water.

I stood, and carefully watched the Canadian's adversary. This dugong, which also bears the name of the halicore, closely resembles the manatee; its oblong body terminated in a lengthened tail, and its lateral fins in perfect fingers. Its difference from the manatee consisted in its upper jaw, which was armed with two long and pointed teeth, which formed on each side diverging tusks.

This dugong, which Ned Land was preparing to attack, was of colossal dimensions; it was more than seven yards long. It did not move, and seemed to be sleeping on the waves, which circumstance made it easier to capture.

The boat approached within six yards of the animal. The oars rested on the rowlocks. I half rose. Ned Land, his body thrown a little back, brandished the harpoon in his experienced hand.

Suddenly a hissing noise was heard, and the dugong disappeared. The harpoon, although thrown with great force, had apparently only struck the water.

"Curse it!" exclaimed the Canadian, furiously; "I have missed it!"
"No," said I; "the creature is wounded- look at the blood; but

your weapon has not stuck in his body."

"My harpoon! my harpoon!" cried Ned Land.

The sailors rowed on, and the coxswain made for the floating barrel. The harpoon regained, we followed in pursuit of the animal.

The latter came now and then to the surface to breathe. Its wound had not weakened it, for it shot onward with great rapidity.

The boat, rowed by strong arms, flew on its track. Several times it approached within some few yards, and the Canadian was ready to strike, but the dugong made off with a sudden plunge, and it was impossible to reach it.

Imagine the passion which excited impatient Ned Land! He hurled at the unfortunate creature the most energetic expletives in the

English tongue. For my part, I was only vexed to see the dugong escape all our attacks.

We pursued it without relaxation for an hour, and I began to think it would prove difficult to capture, when the animal, possessed with the perverse idea of vengeance, of which he had cause to repent, turned upon the pinnace and assailed us in turn.

This maneuver did not escape the Canadian.

"Look out!" he cried.

The coxswain said some words in his outlandish tongue, doubtless warning the men to keep on their guard.

The dugong came within twenty feet of the boat, stopped, sniffed the air briskly with its large nostrils (not pierced at the extremity, but in the upper part of its muzzle). Then taking a spring he threw himself upon us.

The pinnace could not avoid the shock, and half upset, shipped at least two tons of water, which had to be emptied; but thanks to the coxswain, we caught it sideways, not full front, so we were not quite overturned. While Ned Land, clinging to the bows, belabored the gigantic animal with blows from his harpoon, the creature's teeth were buried in the gunwale, and it lifted the whole thing out of the water, as a lion does a roebuck. We were upset over one another, and I know not how the adventure would have ended, if the Canadian, still enraged with the beast, had not struck it to the heart.

I heard its teeth grind on the iron plate, and the dugong disappeared, carrying the harpoon with him. But the barrel soon returned to the surface, and shortly after the body of the animal, turned on its back. The boat came up with it, took it in tow, and made straight for the Nautilus.

It required tackle of enormous strength to hoist the dugong on to the platform. It weighed 10,000 lbs.

The next day, February 11, the larder of the Nautilus was enriched by some more delicate game. A flight of sea swallows rested on the Nautilus. It was a species of the Sterna nilotica, peculiar to Egypt; its beak is black, head gray and pointed, the eye surrounded by white spots, the back, wings, and tail of a grayish color, the belly and throat white, and claws red. They also took some dozen of Nile ducks, a wild bird of high flavor, its throat and upper part of the head white with black spots.

About five o'clock in the evening we sighted to the north the Cape of Ras-Mohammed. This cape forms the extremity of Arabia Petraea, comprised between the Gulf of Suez and the Gulf of Acabah.

The Nautilus penetrated into the Straits of Jubal, which leads to the Gulf of Suez. I distinctly saw a high mountain, towering between the two gulfs of Ras-Mohammed. It was Mount Horeb, that Sinai at the top of which Moses saw God face to face.

At six o'clock the Nautilus, sometimes floating, sometimes immersed, passed some distance from Tor, situated at the end of the bay, the waters of which seemed tinted with red, an observation already made by Captain Nemo. Then night fell in the midst of a heavy silence, sometimes broken by the cries of the pelican, and other night birds, and the noise of the waves breaking upon the shore, chafing against the rocks, or the panting of some far-off steamer beating the waters of the Gulf with its noisy paddles.

From eight to nine o'clock the Nautilus remained some fathoms under the water. According to my calculation we must have been very near Suez. Through the panel of the saloon I saw the bottom of the rocks brilliantly lit up by our electric lamp. We seemed to be leaving the Straits behind us more and more.

At a quarter after nine, the vessel having returned to the surface, I mounted the platform. Most impatient to pass through

Captain Nemo's tunnel, I could not stay in one place, so came to breathe the fresh night air.

Soon in the shadow I saw a pale light, half discolored by the fog, shining about a mile from us.

"A floating lighthouse!" said someone near me.

I turned, and saw the captain.

"It is the floating light of Suez," he continued. "It will not be long before we gain the entrance to the tunnel."

"The entrance cannot be easy?"

"No, Sir; and for that reason I am accustomed to go into the steersman's cage, and myself direct our course. And now if you will go down, M. Aronnax, the Nautilus is going under the waves, and will not return to the surface until we have passed through the Arabian Tunnel."

Captain Nemo led me toward the central staircase; halfway down he opened a door, traversed the upper deck, and landed in the pilot's cage, which it may be remembered rose at the extremity of the platform. It was a cabin measuring six feet square, very much like that occupied by the pilot on the steamboats of the Mississippi or Hudson. In the midst worked a wheel, placed vertically, and caught to the tiller rope, which ran to the back of the Nautilus. Four light ports with lenticular glasses, let in a groove in the partition of the cabin, allowed the man at the wheel to see in all directions.

This cabin was dark; but soon my eyes accustomed themselves to the obscurity, and I perceived the pilot, a strong man, with his hands resting on the spokes of the wheel. Outside, the sea appeared vividly lit up by the lantern, which shed its rays from the back of the cabin to the other extremity of the platform.

"Now," said Captain Nemo, "let us try to make our passage."

Electric wires connected the pilot's cage with the machinery room, and from there the captain could communicate simultaneously to his Nautilus the direction and the speed. He pressed a metal knob, and at once the speed of the screw diminished.

I looked in silence at the high straight wall we were running by at this moment, the immovable base of a massive sandy coast. We followed it thus for an hour only some few yards off.

Captain Nemo did not take his eye from the knob, suspended by its two concentric circles in the cabin. At a simple gesture, the pilot modified the course of the Nautilus every instant.

I had placed myself at the port-scuttle, and saw some magnificent substructures of coral, zoophytes, seaweed, and fucus, agitating their enormous claws, which stretched out from the fissures of the rock.

At a quarter past ten, the captain himself took the helm. A large gallery, black and deep, opened before us. The Nautilus went boldly into it. A strange roaring was heard round its sides. It was the waters of the Red Sea, which the incline of the tunnel precipitated violently toward the Mediterranean. The Nautilus went with the torrent, rapid as an arrow, in spite of the efforts of the machinery, which, in order to offer more effective resistance, beat the waves with reversed screw.

On the walls of the narrow passage I could see nothing but brilliant rays, straight lines, furrows of fire, traced by the great speed, under the brilliant electric light. My heart beat fast.

At thirty-five minutes past ten, Captain Nemo quitted the helm; and, turning to me, said:

"The Mediterranean!"

In less than twenty minutes, the Nautilus, carried along by the torrent, had passed through the Isthmus of Suez.

## THE GRECIAN ARCHIPELAGO.

THE next day, February 12, at the dawn of day, the Nautilus rose to the surface. I hastened on to the platform. Three miles to the south the dim outline of Pelusium was to be seen. A torrent had carried us from one sea to the other. About seven o'clock Ned and Conseil joined me.

"Well, Sir Naturalist," said the Canadian, in a slightly jovial tone, "and the Mediterranean?"

"We are floating on its surface, friend Ned."

"What!" said Conseil, "this very night?"

"Yes, this very night; in a few minutes we have passed this impassable isthmus."

"I do not believe it," replied the Canadian.

"Then you are wrong, Master Land," I continued; "this low coast which rounds off to the south is the Egyptian coast. And you, who have such good eyes, Ned, you can see the jetty of Port Said stretching into the sea."

The Canadian looked attentively.

"Certainly you are right, Sir, and your captain is a first-rate man. We are in the Mediterranean. Good! Now, if you please, let us talk of our own little affair, but so that no one hears us."

I saw what the Canadian wanted, and, in any case, I thought it better to let him talk, as he wished it; so we all three went and sat down near the lantern, where we were less exposed to the spray of the blades.

"Now, Ned, we listen; what have you to tell us?"

"What I have to tell you is very simple. We are in Europe; and before Captain Nemo's caprices drag us once more to the bottom of the polar seas, or lead us into Oceania, I ask to leave the Nautilus."

I wished in no way to shackle the liberty of my companions, but I certainly felt no desire to leave Captain Nemo.

Thanks to him, and thanks to his apparatus, I was each day nearer the completion of my submarine studies; and I was rewriting my book of submarine depths in its very element. Should I ever again have such an opportunity of observing the wonders of the ocean? No, certainly not! And I could not bring myself to the idea of abandoning the Nautilus before the cycle of investigation was accomplished.

"Friend Ned, answer me frankly, are you tired of being on board? Are you sorry that destiny has thrown us into Captain Nemo's hands?"

The Canadian remained some moments without answering. Then crossing his arms, he said:

"Frankly, I do not regret this journey under the seas. I shall be glad to have made it; but now that it is made, let us have done with it. That is my idea."

"It will come to an end, Ned."

"Where and when?"

"Where I do not know- when I cannot say; or rather, I suppose it will end when these seas have nothing more to teach us."

"Then what do you hope for?" demanded the Canadian.

"That circumstances may occur as well six months hence as now by which we may and ought to profit."

"Oh!" said Ned Land, "and where shall we be in six months, if you please, Sir Naturalist?"

"Perhaps in China; you know the Nautilus is a rapid traveler. It goes through water as swallows through the air, or as an express on the land. It does not fear frequented seas; who can say that it may

not beat the coasts of France, England, or America, on which flight may be attempted as advantageously as here."

"M. Aronnax," replied the Canadian, "your arguments are rotten at the foundation. You speak in the future, 'We shall be there! we shall be here!' I speak in the present, 'We are here, and we must profit by it.'"

Ned Land's logic pressed me hard, and I felt myself beaten on that ground. I knew not what argument would now tell in my favor.

"Sir," continued Ned, "let us suppose an impossibility; if Captain Nemo should this day offer you your liberty, would you accept it?"

"I do not know," I answered.

"And if," he added, "the offer he made you this day was never to be renewed, would you accept it?"

"Friend Ned, this is my answer. Your reasoning is against me. We must not rely on Captain Nemo's good will. Common prudence forbids him to set us at liberty. On the other side, prudence bids us profit by the first opportunity to leave the Nautilus."

"Well, M. Aronnax, that is wisely said."

"Only one observation- just one. The occasion must be serious, and our first attempt must succeed; if it fails, we shall never find another, and Captain Nemo will never forgive us."

"All that is true," replied the Canadian. "But your observation applies equally to all attempts at flight, whether in two years' time, or in two days. But the question is still this: If a favorable opportunity presents itself, it must be seized."

"Agreed! and now, Ned, will you tell me what you mean by a favorable opportunity?"

"It will be that which, on a dark night, will bring the Nautilus a short distance from some European coast."

"And you will try and save yourself by swimming?"

"Yes, if we were near enough to the bank, and if the vessel was floating at the time. Not if the bank was far away, and the boat was under the water."

"And in that case?"

"In that case, I should seek to make myself master of the pinnace. I know how it is worked. We must get inside, and the bolts once drawn, we shall come to the surface of the water, without even the pilot, who is in the bows, perceiving our flight."

"Well Ned, watch for the opportunity; but do not forget that a hitch will ruin us."

"I will not forget."

"And now, Ned, would you like to know what I think of your project?"

"Certainly, M. Aronnax."

"Well, I think, I do not say I hope, I think that this favorable opportunity will never present itself."

"Why not?"

"Because Captain Nemo cannot hide from himself that we have not given up all hope of regaining our liberty, and he will be on his guard, above all, in the seas, and in the sight of European coasts."

"We shall see," replied Ned Land, shaking his head determinedly.

"And now, Ned Land," I added, "let us stop here. Not another word on the subject. The day that you are ready, come and let us know, and we will follow you. I rely entirely upon you."

Thus ended a conversation which, at no very distant time, led to such grave results. I must say here that facts seemed to confirm my foresight, to the Canadian's great despair. Did Captain Nemo distrust us in these frequented seas? or did he only wish to hide himself from the numerous vessels, of all nations, which plowed the Mediterranean? I could not tell; but we were oftener between waters,

and far from the coast. Or, if the Nautilus did emerge, nothing was to be seen but the pilot's cage; and sometimes it went to great depths, for, between the Grecian Archipelago and Asia Minor, we could not touch the bottom by more than a thousand fathoms.

Thus I only knew we were near the Island of Carpathos, one of the Sporades, by Captain Nemo reciting these lines from Virgil-

"Est in Carpathio Neptuni gurgite vates, Caeruleus Proteus,"

as he pointed to a spot on the planisphere.

It was indeed the ancient abode of Proteus, the old shepherd of Neptune's flocks, now the Island of Scarpanto, situated between Rhodes and Crete. I saw nothing but the granite base through the glass panels of the saloon.

The next day, February 14, I resolved to employ some hours in studying the fishes of the Archipelago; but for some reason or other, the panels remained hermetically sealed. Upon taking the course of the Nautilus I found that we were going toward Candia, the ancient Isle Crete. At the time I embarked on the Abraham Lincoln, the whole of this island had risen in insurrection against the despotism of the Turks. But how the insurgents had fared since that time I was absolutely ignorant, and it was not Captain Nemo, deprived of all land communications, who could tell me.

I made no allusion to this event when that night I found myself alone with him in the saloon. Besides, he seemed to be taciturn and preoccupied. Then, contrary to his custom, he ordered both panels to be opened, and going from one to the other, observed the mass of waters attentively. To what end I could not guess; so, on my side, I employed my time in studying the fish passing before my eyes.

Among others, I remarked some gobies, mentioned by Aristotle, and commonly known by the name of sea braches, which are more particularly met with in the salt waters lying near the delta of the Nile. Near them rolled some sea bream, half phosphorescent, a kind of sparus, which the Egyptians ranked amongst their sacred animals, whose arrival in the waters of their river announced a fertile overflow, and was celebrated by religious ceremonies. I also noticed some cheilines about nine inches long, a bony fish with transparent shell, whose livid, color is mixed with red spots; they are great eaters of marine vegetation, which gives them an exquisite flavor. These cheilines were much sought after by the epicures of ancient Rome; the inside, dressed with the soft roe of the lamprey, peacocks' brains, and tongues of the phenicoptera, composed that divine dish of which Vitellius was so enamored.

Another inhabitant of these seas drew my attention, and led my mind back to recollections of antiquity. It was the remora, that fastens on to the shark's belly. This little fish, according to the ancients, hooking on to the ship's bottom, could stop its movements; and one of them, by keeping back Antony's ship during the battle of Actium, helped Augustus to gain the victory. On how little hangs the destiny of nations! I observed some fine anthiae, which belong to the order of lutjans, a fish held sacred by the Greeks, who attributed to them the power of hunting the marine monsters from waters they frequented. Their name signifies flower, and they justify their appellation by their shaded colors, their shades comprising the whole gamut of reds, from the paleness of the rose to the brightness of the ruby, and the fugitive tints that clouded their dorsal fin. My eyes could not leave these wonders of the sea, when they were suddenly struck an unexpected apparition.

In the midst of the waters a man appeared, a diver, carrying at

his belt a leather purse. It was not a body abandoned to the waves; it was a living man, swimming with a strong hand, disappearing occasionally to take breath at the surface.

I turned toward Captain Nemo, and in an agitated voice exclaimed:

"A man shipwrecked! He must be saved at any price!"

The captain did not answer me, but came and leaned against the panel.

The man had approached, and with his face flattened against the glass, was looking at us.

To my great amazement, Captain Nemo signed to him. The diver answered with his hand, mounted immediately to the surface of the water, and did not appear again.

"Do not be uncomfortable," said Captain Nemo. "It is Nicholas of Cape Matapan, surnamed Pesca. He is well known in all the Cyclades. A bold diver! water is his element, and he lives more in it than on land, going continually from one island to another, even as far as Crete."

"You know him, Captain?"

"Why not, M. Aronnax?"

Saying which, Captain Nemo went toward a piece of furniture standing near the left panel of the saloon. Near this piece of furniture, I saw a chest bound with iron, on the cover of which was a copper plate, bearing the insignia of the Nautilus with its device.

At that moment, the captain, without noticing my presence, opened the piece of furniture, a sort of strong box, which held a great many ingots.

They were ingots of gold. From whence came this precious metal, which represented an enormous sum? Where did the captain gather this gold from? and what was he going to do with it?

I did not say one word. I looked. Captain Nemo took the ingots one by one, and arranged them methodically in the chest, which he filled entirely. I estimated the contents at more than four thousand pounds weight of gold, that is to say, near one million dollars.

The chest was securely fastened, and the captain wrote an address on the lid, in characters which must have belonged to modern Greece.

This done, Captain Nemo pressed a knob, the wire of which communicated with the quarters of the crew. Four men appeared, and, not without some trouble, pushed the chest out of the saloon. Then I heard them hoisting it up the iron staircase by means of pulleys.

At that moment, Captain Nemo turned to me.

"And you were saying, Sir?" said he.

"I was saying nothing, Captain."

"Then, if you will allow me, I will wish you good night." Whereupon he turned and left the saloon.

I returned to my room much troubled, as one may believe. I vainly tried to sleep- I sought the connecting link between the apparition of the diver and the chest filled with gold. Soon, I felt, by certain movements of pitching and tossing, that the Nautilus was leaving the depths and returning to the surface.

Then I heard steps upon the platform; and I knew they were unfastening the pinnace, and launching it upon the waves. For one instant it struck the side of the Nautilus, then all noise ceased.

Two hours after, the same noise, the same going and coming was renewed; the boat was hoisted on board, replaced in its socket, and the Nautilus again plunged under the waves.

So these millions had been transported to their address. To what point of the Continent? Who was Captain Nemo's correspondent?

The next day, I related to Conseil and the Canadian the events of the night, which had excited my curiosity to the highest degree. My

companions were not less surprised than myself.

"But where does he take his millions to?" asked Ned Land.

To that there was no possible answer. I returned to the saloon after having breakfast, and set to work. Till five o'clock in the evening, I employed myself in arranging my notes. At that momentought I to attribute it to some peculiar idiosyncrasy—I felt so great a heat that I was obliged to take off my coat of byssus! It was strange, for we were not under low latitudes; and even then, the Nautilus, submerged as it was, ought to experience no change of temperature. I looked at the manometer; it showed a depth of sixty feet, to which atmospheric heat could never attain.

I continued my work, but the temperature rose to such a pitch as to be intolerable.

"Could there be fire on board?" I asked myself.

I was leaving the saloon, when Captain Nemo entered; he approached the thermometer, consulted it, and turning to me, said:

"Forty-two degrees."

"I have noticed it, Captain," I replied; "and if it gets much hotter we cannot bear it."

"Oh! it will not get hotter if we do not wish it."

"You can reduce it as you please, then?"

"No; but I can go farther from the stove which produces it."

"It is outward then!"

"Certainly; we are floating in a current of boiling water."

"Is it possible!" I exclaimed.

"Look."

The panels opened, and I saw the sea entirely white all round. A sulphurous smoke was curling amid the waves, which boiled like water in a copper. I placed my hand on one of the panes of glass, but the heat was so great that I quickly took it off again.

"Where are we?" I asked.

"Near the island of Santorin, sir," replied the captain, "and just in the canal which separates Nea Kamenni from Pali Kamenni. I wished to give you a sight of the curious spectacle of a submarine eruption."

"Nothing is ever ended in the volcanic parts of the sea," replied Captain Nemo; "and the globe is always being worked by subterranean fires. Already, in the nineteenth year of our era, according to Cassiodorus and Pliny, a new island, Theia (the divine), appeared in the very place where these islets have recently been formed. Then they sank under the waves, to rise again in the year 69, when they again subsided. Since that time to our days, the Plutonian work has been suspended. But, on February 3, 1866, a new island which they named George Island, emerged from the midst of the sulphurous vapor near Nea Kamenni, and settled again the sixth of the same month. Seven days after, February 13, the Island of Aphroessa appeared, leaving between Nea Kamenni and itself a canal ten yards broad. I was in these seas when the phenomenon occurred, and I was able, therefore, to observe all the different phases. The Island of Aphroessa, of round form, measured three hundred feet in diameter, and thirty feet in height. It was composed of black and vitreous lava, mixed with fragments of feldspar. And lastly, on March 10, a smaller island, called Reka showed itself near Nea Kamenni, and, since then, these three have joined together, forming but one and the same island."

"And the canal in which we are at this moment?" I asked.

"Here it is," replied Captain Nemo, showing me a map of the archipelago. "You see I have marked the new islands."

I returned to the glass. The Nautilus was no longer moving, the

heat was becoming unbearable. The sea, which till now had been white, was red, owing to the presence of salts of iron. In spite of the ship's being hermetically sealed, an insupportable smell of sulphur filled the saloon, and the brilliancy of the electricity was entirely extinguished by bright scarlet flames. I was in a bath, I was choking, I was broiled.

"We can remain no longer in this boiling water," said I to the captain.

"It would not be prudent," replied the impassive Captain Nemo.

An order was given; the Nautilus tacked about and left the furnace it could not brave with impunity. A quarter of an hour after we were breathing fresh air on the surface. The thought then struck me that, if Ned Land had chosen this part of the sea for our flight, we should never come alive out of this sea of fire.

The next day, February 16, we left the basin which, between Rhodes and Alexandria, is reckoned about fifteen hundred fathoms in depth, and the Nautilus, passing some distance from Cerigo, quitted the Grecian archipelago after having doubled Cape Matapan.

CHAPTER VII.

#### THE MEDITERRANEAN IN FORTY-EIGHT HOURS.

THE Mediterranean, the blue sea par excellence, "the great sea" of the Hebrews, "the sea" of the Greeks, the "mare nostrum" of the Romans, bordered by orange trees, aloes, cacti, and sea pines; embalmed with the perfume of the myrtle, surrounded by rude mountains, saturated with pure and transparent air, but incessantly worked by underground fires, a perfect battlefield in which Neptune and Pluto still dispute the empire of the world!

It is upon these banks, and on these waters, says Michelet, that man is renewed in one of the most powerful climates of the globe. But, beautiful as it was, I could only take a rapid glance at the basin whose superficial area is two millions of square miles. Even Captain Nemo's knowledge was lost to me, for this enigmatical person did not appear once during our passage at full speed. I estimated the course which the Nautilus took under the waves of the sea at about six hundred leagues, and it was accomplished in forty-eight hours. Starting on the morning of February 16 from the shores of Greece, we had crossed the Straits of Gibraltar by sunrise on the eighteenth.

It was plain to me that this Mediterranean, inclosed in the midst of those countries which he wished to avoid, was distasteful to Captain Nemo. Those waves and those breezes brought back too many remembrances, if not too many regrets. Here he had no longer that independence and that liberty of gait which he had had when in the open seas, and his Nautilus felt itself cramped between the close shores of Africa and Europe.

Our speed was now twenty-five miles an hour. It may be well understood that Ned Land, to his great disgust, was obliged to renounce his intended flight. He could not launch the pinnace, going at the rate of twelve or thirteen yards every second. To quit the Nautilus under such conditions, would be as bad as jumping from a train going at full speed- an imprudent thing, to say the least of it. Besides, our vessel only mounted to the surface of the waves at night to renew its stock of air; it was steered entirely by the compass and the log.

I saw no more of the interior of this Mediterranean than a traveler by express train perceives of the landscape which flies before his eyes! that is to say, the distant horizon, and not the nearer objects which pass like a flash of lightning.

In the midst of the mass of waters brightly lit up by the electric

light, glided some of those lampreys, more than a yard long, common to almost every climate. Some of the oxyrhynchi, a kind of ray five feet broad, with white belly and gray spotted back, spread out like a large shawl carried along by the current. Other rays passed so quickly that I could not see if they deserved the name of eagles which was given to them by the ancient Greeks, or the qualification of rats, toads, and bats, with which modern fishermen have loaded them. A few milander sharks, twelve feet long, and much feared by divers, struggled among them. Sea foxes eight feet long, endowed with wonderful fineness of scent, appeared like large blue shadows. Some dorades of the shark kind, some of which measured seven and a half feet, showed themselves in their dress of blue and silver, encircled by small bands which struck sharply against the somber tints of their fins, a fish consecrated to Venus, the eyes of which are incased in a socket of gold, a precious species, friend of all waters, fresh or salt, an inhabitant of rivers, lakes, and oceans, living in all climates, and bearing all temperatures; a race belonging to the geological era of the earth, and which has preserved all the beauty of its first days. Magnificent sturgeons, nine or ten yards long, creatures of great speed, striking the panes of glass with their strong tails, displayed their bluish backs with small brown spots; they resemble the sharks, but are not equal to them in. strength, and are to be met with in all seas.

But of all the diverse inhabitants of the Mediterranean, those I observed to the greatest advantage, when the Nautilus approached the surface, belonged to the sixty-third genus of bony fish. They were a kind of tunny, with bluish black backs, and silvery breast-plates, whose dorsal fins threw out sparkles of gold. They are said to follow in the wake of vessels whose refreshing shade they seek from the fire of a tropical sky, and they did not belie the saying, for they accompanied the Nautilus as they did in former times the vessel of La Perouse. For many a long hour they struggled to keep up with our vessel. I was never tired of admiring these creatures really built for speed- their small heads, their bodies lithe and cigar-shaped, which in some were more than three yards long, their pectoral fins and forked tail endowed with remarkable strength. They swam in a triangle, like certain flocks of birds, whose rapidity they equaled, and of which the ancients used to say that they understood geometry and strategy. But still they do not escape the pursuit of the Provencals, who esteem them as highly as the inhabitants of the Propontis and of Italy used to do; and these precious, but blind and foolhardy creatures, perish by millions in the nets of the Marseillaise.

With regard to the species of fish common to the Atlantic and the Mediterranean, the giddy speed of the Nautilus prevented me from observing them with any degree of accuracy.

As to marine mammals, I thought, in passing the entrance of the Adriatic, that I saw two or three cachalots, furnished with one dorsal fin, of the genus physetera, some dolphins of the genus globicephali, peculiar to the Mediterranean, the back part of the head being marked like a zebra with small lines; also, a dozen of seals, with white bellies and black hair, known by the name of monks, and which really have the air of a Dominican; they are about three yards in length.

As to zoophytes, for some instants I was able to admire a beautiful orange galeolaria, which had fastened itself to the port panel; it held on by a long filament, and was divided into an infinity of branches, terminated by the finest lace which could ever have been woven by the rivals of Arachne herself. Unfortunately, I could not take this admirable specimen; and doubtless no other Mediterranean

zoophyte would have offered itself to my observation, if, on the night of the sixteenth, the Nautilus had not, singularly enough, slackened its speed, under the following circumstances.

We were then passing between Sicily and the coast of Tunis. In the narrow space between Cape Bon and the Straits of Messina, the bottom of the sea rose almost suddenly. There was a perfect bank, on which there was not more than nine fathoms of water, while on either side the depth was ninety fathoms.

The Nautilus had to maneuver very carefully so as not to strike against this submarine barrier.

I showed Conseil, on the map of the Mediterranean, the spot occupied by this reef.

"But if you please, Sir," observed Conseil, "it is like a real isthmus joining Europe to Africa."

"Yes, my boy, it forms a perfect bar to the Straits of Lybia, and the soundings of Smith have proved that in former times the continents between Cape Boco and Cape Furina were joined."

"I can well believe it, " said Conseil.

"I will add," I continued, "that a similar barrier exists between Gibraltar and Ceuta, which in geological times formed the entire Mediterranean."

"What if some volcanic burst should one day raise these two barriers above the waves?"

"It is not probable, Conseil."

"Well, but allow me to finish, please, Sir; if this phenomenon should take place, it will be troublesome for M. Lesseps, who has taken so much pains to pierce the isthmus."

"I agree with you; but I repeat, Conseil, this phenomenon will never happen. The violence of subterranean force is ever diminishing. Volcanoes, so plentiful in the first days of the world, are being extinguished by degrees; the internal heat is weakened, the temperature of the lower strata of the globe is lowered by a perceptible quantity every century to the detriment of our globe, for its heat is its life."

"But the sun?"

"The sun is not sufficient, Conseil. Can it give heat to a dead body?"

"Not that I know of."

"Well, my friend, this earth will one day be that cold corpse; it will become uninhabitable and uninhabited like the moon, which has long since lost all its vital heat."

"In how many centuries?"

"In some hundreds of thousands of years, my boy."

"Then," said Conseil, "we shall have time to finish our journey, that is, if Ned Land does not interfere with it."

And Conseil, reassured, returned to the study of the bank, which the Nautilus was skirting at a moderate speed.

There, beneath the rocky and volcanic bottom, lay outspread a living flora of sponges and reddish cydippes, which emitted a slight phosphorescent light, commonly known by the name of sea cucumbers; and walking comatulae more than a yard long, the purple of which completely colored the water around

The Nautilus having now passed the high bank on the Libyan Straits, returned to the deep waters and its accustomed speed.

From that time no more mollusks, no more articulates, no more zoophytes; barely a few large fish passing like shadows.

During the nights of February 16 and 17, we had entered the second Mediterranean basin, the greatest depth of which was 1,450 fathoms. The Nautilus, by the action of its screw, slid down the inclined planes, and buried itself in the lowest depths of the sea.

On February 18, about three o'clock in the morning, we were at the entrance of the Strait of Gibraltar. There once existed two currents: an upper one, long since recognized, which conveys the waters of the ocean into the basin of the Mediterranean; and a lower countercurrent, which reasoning has now shown to exist. Indeed, the volume of water in the Mediterranean, incessantly added to by the waves of the Atlantic, and by rivers falling into it, would each year raise the level of this sea, for its evaporation is not sufficient to restore the equilibrium. As it is not so, we must necessarily admit the existence of an undercurrent, which empties into the basin of the Atlantic, through the Strait of Gibraltar, the surplus waters of the Mediterranean. A fact, indeed; and it was this countercurrent by which the Nautilus profited. It advanced rapidly by the narrow pass. For one instant I caught a glimpse of the beautiful ruins of the temple of Hercules, buried in the ground, according to Pliny, and with the low island which supports it; and a few minutes later we were floating on the Atlantic.

CHAPTER VIII.

#### VIGO BAY.

THE Atlantic! a vast sheet of water, whose superficial area covers twenty-five millions of square miles, the length of which is nine thousand miles, with a mean breadth of two thousand seven hundred-an ocean whose parallel winding shores embrace an immense circumference, watered by the largest rivers of the world, the St. Lawrence, the Mississippi, the Amazon, the Plata, the Orinoco, the Niger, the Senegal, the Elbe, the Loire, and the Rhine, which carry water from the most civilized, as well as from the most savage countries! Magnificent field of water, incessantly plowed by vessels of every nation, sheltered by the flags of every nation, and which terminates in those two terrible points so dreaded by mariners, Cape Horn, and the Cape of Tempests!

The Nautilus was piercing the water with its sharp spur, after having accomplished nearly ten thousand leagues in three months and a half, a distance greater than the great circle of the earth. Where were we going now? And what was reserved for the future? The Nautilus, leaving the Strait of Gibraltar, had gone far out. It returned to the surface of the waves, and our daily walks on the platform were restored to us.

I mounted at once, accompanied by Ned Land and Conseil. At a distance of about twelve miles, Cape St. Vincent was dimly to be seen, forming the southwestern point of the Spanish peninsula. A strong southerly gale was blowing. The sea was swollen and billowy; it made the Nautilus rock violently. It was almost impossible to keep one's footing on the platform, which the heavy rolls of the sea beat over every instant. So we descended after inhaling some mouthfuls of fresh air.

I returned to my room, Conseil to his cabin; but the Canadian, with a preoccupied air, followed me. Our rapid passage across the Mediterranean had not allowed him to put his project into execution, and he could not help showing his disappointment. When the door of my room was shut, he sat down and looked at me silently.

"Friend Ned," said I, "I understand you; but you cannot reproach yourself. To have attempted to leave the Nautilus under the circumstances would have been folly."

Ned Land did not answer; his compressed lips and frowning brow showed with him the violent possession this fixed idea had taken of his mind.

"Let us see," I continued; "we need not despair yet. We are

going up the coast of Portugal again; France and England are not far off, where we can easily find refuge. Now, if the Nautilus, on leaving the Strait of Gibraltar, had gone to the south, if it had carried us toward regions where there were no continents, I should share your uneasiness. But we know now that Captain Nemo does not fly from civilized seas, and in some days I think you can act with security."

Ned Land still looked at me fixedly; at length his fixed lips parted, and he said, "It is for tonight."

I drew myself up suddenly. I was, I admit, little prepared for this communication. I wanted to answer the Canadian, but words would not come.

"We agreed to wait for an opportunity," continued Ned Land, "and the opportunity has arrived. This night we shall be but a few miles from the Spanish coast. It is cloudy. The wind blows freely. I have your word, M. Aronnax, and I rely upon you."

As I was still silent, the Canadian approached me.

"Tonight, at nine o'clock," said he. "I have warned Conseil. At that moment, Captain Nemo will be shut up in his room, probably in bed. Neither the engineers nor the ship's crew can see us. Conseil and I will gain the central staircase, and you, M. Aronnax, will remain in the library, two steps from us, waiting my signal. The oars, the mast, and the sail, are in the canoe. I have even succeeded in getting in some provisions. I have procured an English wrench, to unfasten the bolts which attach it to the shell of the Nautilus. So all is ready, till tonight."

"The sea is bad."

"That I allow," replied the Canadian; "but we must risk that. Liberty is worth paying for; besides, the boat is strong, and a few miles with a fair wind to carry us, is no great thing. Who knows but by tomorrow we may be a hundred leagues away? Let circumstances only favor us, and by ten or eleven o'clock we shall have landed on some spot of terra firma, alive or dead. But adieu now till tonight."

With these words the Canadian withdrew, leaving me almost dumb. I had imagined that, the chance gone, I should have time to reflect and discuss the matter. My obstinate companion had given me no time; and, after all, what could I have said to him? Ned Land was perfectly right. There was almost the opportunity to profit by. Could I retract my word, and take upon myself the responsibility of compromising the future of my companions? Tomorrow Captain Nemo might take us far from all land.

At that moment a rather loud hissing told me that the reservoirs were filling, and that the Nautilus was sinking under the waves of the Atlantic.

A sad day I passed, between the desire of regaining my liberty of action, and of abandoning the wonderful Nautilus, and leaving my submarine studies incomplete.

What dreadful hours I passed thus! sometimes seeing myself and companions safely landed, sometimes wishing, in spite of my reason, that some unforeseen circumstances would prevent the realization of Ned Land's project.

Twice I went to the saloon. I wished to consult the compass. I wished to see if the direction the Nautilus was taking was bringing us nearer or taking us farther from the coast. But no; the Nautilus kept in Portuguese waters.

I must therefore take my part, and prepare for flight. My luggage was not heavy; my notes, nothing more.

As to Captain Nemo, I asked myself what he would think of our escape; what trouble, what wrong it might cause him, and what he might do in case of its discovery or failure. Certainly I had no cause to complain of him; on the contrary, never was hospitality freer than

his. In leaving him, I could not be taxed with ingratitude. No oath bound us to him. It was on the strength of circumstances he relied, and not upon our word, to fix us forever.

I had not seen the captain since our visit to the Island of Santorin. Would chance bring me to his presence before our departure? I wished it, and I feared it at the same time. I listened if I could hear him walking in the room contiguous to mine. No sound reached my ear. I felt an unbearable uneasiness. This day of waiting seemed eternal. Hours struck too slowly to keep pace with my impatience.

My dinner was served in my room as usual. I ate but little; I was too preoccupied. I left the table at seven o'clock. A hundred and twenty minutes (I counted them) still separated me from the moment in which I was to join Ned Land. My agitation redoubled. My pulse beat violently. I could not remain quiet. I went and came, hoping to calm my troubled spirit by constant movement. The idea of failure in our bold enterprise was the least painful of my anxieties; but the thought of seeing our project discovered before leaving the Nautilus, of being brought before Captain Nemo, irritated, or, what was worse, saddened at my desertion, made my heart beat.

I wanted to see the saloon for the last time. I descended the stairs, and arrived in the museum where I had passed so many useful and agreeable hours. I looked at all its riches, all its treasures, like a man on the eve of an eternal exile, who was leaving never to return. These wonders of Nature, these masterpieces of art, among which, for so many days, my life had been concentrated, I was going to abandon them forever! I should like to have taken a last look through the windows of the saloon into the waters of the Atlantic: but the panels were hermetically closed, and a cloak of steel separated me from that ocean which I had not yet explored.

In passing through the saloon, I came near the door, let into the angle, which opened into the captain's room. To my great surprise, this door was ajar. I drew back, involuntarily. If Captain Nemo should be in his room, he could see me. But, hearing no noise, I drew nearer. The room was deserted. I pushed open the door, and took some steps forward. Still the same monklike severity of aspect.

Suddenly the clock struck eight. The first beat of the hammer on the bell awoke me from my dreams. I trembled as if an invisible eye had plunged into my most secret thoughts, and I hurried from the room.

There my eye fell upon the compass. Our course was still north. The log indicated moderate speed, the manometer a depth of about sixty feet.

I returned to my room, clothed myself warmly-sea boots, an otterskin cap, a great coat of byssus, lined with sealskin; I was ready, I was waiting. The vibration of the screw alone broke the deep silence which reigned on board. I listened attentively. Would no loud voice suddenly inform me that Ned Land had been surprised in his projected flight? A mortal dread hung over me, and I vainly tried to regain my accustomed coolness.

At a few minutes to nine, I put my ear to the captain's door. No noise. I left my room and returned to the saloon, which was half in obscurity, but deserted.

I opened the door communicating with the library. The same insufficient light, the same solitude. I placed myself near the door leading to the central staircase, and there waited for Ned Land's signal.

At that moment the trembling of the screw sensibly diminished, then it stopped entirely. The silence was now only disturbed by the beatings of my own heart. Suddenly a slight shock was felt; and I knew that the Nautilus had stopped at the bottom of the ocean. My

uneasiness increased. The Canadian's signal did not come. I felt inclined to join Ned Land and beg of him to put off his attempt. I felt that we were not sailing under our usual conditions.

At this moment the door of the large saloon opened, and Captain Nemo appeared. He saw me, and, without further preamble, began in an amiable tone of voice:

"Ah, Sir! I have been looking for you. Do you know the history of Spain?"

Now, one might know the history of one's own country by heart; but in the condition I was at the time, with troubled mind and head quite lost, I could not have said a word of it.

"Well," continued Captain Nemo, "you heard my question? Do you know the history of Spain?"

"Very slightly," I answered.

"Well, here are learned men having to learn," said the captain.
"Come, sit down, and I will tell you a curious episode in this history. Sir, listen well," said he; "this history will interest you on one side, for it will answer a question which doubtless you have not been able to solve."

"I listen, Captain," said I, not knowing what my interlocutor was driving at, and asking myself if this incident was bearing on our projected flight.

"Sir, if you have no objection, we will go back to 1702. You cannot be ignorant that your king, Louis XIV., thinking that the gesture of a potentate was sufficient to bring the Pyrenees under his yoke, had imposed the Duke of Anjou, his grandson, on the Spaniards. This prince reigned more or less badly under the name of Philip V., and had a strong party against him abroad. Indeed, the preceding year, the royal houses of Holland, Austria, and England, had concluded a treaty of alliance at The Hague, with the intention of plucking the crown of Spain from the head of Philip V., and placing it on that of an arch-duke to whom they prematurely gave the title of Charles III.

"Spain must resist this coalition; but she was almost entirely unprovided with either soldiers or sailors. However, money would not fail them, provided that their galleons, laden with gold and silver from America, once entered their ports. And about the end of 1702 they expected a rich convoy which France was escorting with a fleet of twenty-three vessels, commanded by Admiral Chateau-Renaud, for the ships of the coalition were already beating the Atlantic. This convoy was to go to Cadiz, but the Admiral, hearing that an English fleet was cruising in those waters, resolved to make for a French port.

"The Spanish commanders of the convoy objected to this decision. They wanted to be taken to a Spanish port, and if not to Cadiz, into Vigo Bay, situated on the northwest coast of Spain, and which was not blocked.

"Admiral Chateau-Renaud had the rashness to obey this injunction, and the galleons entered Vigo Bay.

"Unfortunately, it formed an open road which could not be defended in any way. They must therefore hasten to unload the galleons before the arrival of the combined fleet; and time would not have failed them had not a miserable question of rivalry suddenly arisen.

"You are following the chain of events?" asked Captain Nemo.

"Perfectly," said I, not knowing the end proposed by this historical lesson.

"I will continue. This is what passed. The merchants of Cadiz had a privilege by which they had the right of receiving all merchandise coming from the West Indies. Now, to disembark these ingots at the port of Vigo, was depriving them of their rights. They

complained at Madrid, and obtained the consent of the weak-minded Philip that the convoy, without discharging its cargo, should remain sequestered in the roads of Vigo until the enemy had disappeared.

"But while coming to this decision, on October 22, 1702, the English vessels arrived in Vigo Bay, when Admiral Chateau-Renaud, in spite of inferior forces, fought bravely. But seeing that the treasure must fall into the enemy's hands, he burned and scuttled every galleon, which. went to the bottom with their immense riches."

Captain Nemo stopped. I admit I could not yet see why this history should interest me.

"Well?" I asked.

"Well, M. Aronnax," replied Captain Nemo, "we are in that Vigo Bay; and it rests with yourself whether you will penetrate its mysteries."

The captain rose, telling me to follow him. I had had time to recover. I obeyed. The saloon was dark, but through the transparent glass the waves were sparkling. I looked.

For half a mile around the Nautilus, the waters seemed bathed in electric light. The sandy bottom was clean and bright. Some of the ship's crew in their diving dresses were clearing away half rotten barrels and empty cases from the midst of the blackened wrecks. From these cases and from these barrels escaped ingots of gold and silver, cascades of piastres and jewels. The sand was heaped up with them. Laden with their precious booty the men returned to the Nautilus, disposed of their burden, and went back to this inexhaustible fishery of gold and silver.

I understood now. This was the scene of the battle of October 22, 1702. Here on this very spot the galleons laden for the Spanish government had sunk. Here Captain Nemo came, according to his wants, to pack up those millions with which he burdened the Nautilus. It was for him and him alone America had given up her precious metals. He was heir direct, without anyone to share, in those treasures torn from the Incas and from the conquered of Hernando Cortes.

"Did you know, Sir," he asked, smiling, "that the sea contained such riches?"

"I knew," I answered, "that they value the money held in suspension in these waters at two millions."

"Doubtless; but to extract this money the expense would be greater than the profit. Here, on the contrary, I have but to pick up what man has lost- and not only in Vigo Bay, but in a thousand other spots where shipwrecks have happened, and which are marked on my submarine map. Can you understand now the source of the millions I am worth?"

"I understand, Captain. But allow me to tell you that in exploring Vigo Bay you have only been beforehand with a rival society."

"And which?"

"A society which has received from the Spanish government the privilege of seeking these buried galleons. The shareholders are led on by the allurement of an enormous bounty, for they value these rich shipwrecks at five hundred millions."

"Five hundred millions they were," answered Captain Nemo, "but they are so no longer."

"Just so," said I; "and a warning to those shareholders would be an act of charity. But who knows if it would be well received? What gamblers usually regret above all is less the loss of their money, than of their foolish hopes. After all, I pity them less than the thousands of unfortunates to whom so much riches well distributed would have been profitable, while for them they will be forever barren."

I had no sooner expressed this regret than I felt that it must have wounded Captain Nemo.

"Barren!" he exclaimed with animation. "Do you think then, Sir, that these riches are lost because I gather them? Is it for myself alone, according to your idea, that I take the trouble to collect these treasures? Who told you that I did not make a good use of it? Do you think I am ignorant that there are suffering beings and oppressed races on this earth, miserable creatures to console, victims to avenge? Do you not understand?"

Captain Nemo stopped at these last words, regretting perhaps that he had spoken so much. But I had guessed that whatever the motive which had forced him to seek independence under the sea, it had left him still a man, that his heart still beat for the sufferings of humanity, and that his immense charity was for oppressed races as well as individuals. And I then understood for whom those millions were destined, which were forwarded by Captain Nemo when the Nautilus was in the waters of Crete.

## CHAPTER IX.

#### A VANISHED CONTINENT.

THE next morning, February 19, I saw the Canadian enter my room. I expected this visit. He looked very disappointed.

"Well Sir?" said he.

"Well Ned, fortune was against us yesterday."

"Yes; that captain must needs stop exactly at the hour we intended leaving his vessel."

"Yes, Ned, he had business at his bankers."

"His bankers!"

"Or rather his banking house; by that I mean the ocean, where his riches are safer than in the chests of the State."

I then related to the Canadian the incidents of the preceding night, hoping to bring him back to the idea of not abandoning the captain; but my recital had no other result than an energetically expressed regret from Ned, that he had not been able to take a walk on the battle field of Vigo on his own account.

"However," said he, "all is not ended. It is only a blow of the harpoon lost. Another time we must succeed; and tonight, if necessary"-

"In what direction is the Nautilus going?" I asked.

"I do not know," replied Ned.

"Well, at noon we shall see the point."

The Canadian returned to Conseil. As soon as I was dressed, I went into the saloon. The compass was not reassuring. The course of the Nautilus was S.S.W. We were turning our backs on Europe.

I waited with some impatience till the ship's place was pricked on the chart. At about half-past eleven the reservoirs were emptied, and our vessel rose to the surface of the ocean. I rushed toward the platform. Ned Land had preceded me. No more land in sight. Nothing but an immense sea. Some sails on the horizon, doubtless those going to San Roque in search of favorable winds for doubling the Cape of Good Hope. The weather was cloudy. A gale of wind was preparing. Ned raved, and tried to pierce the cloudy horizon. He still hoped that behind all that fog stretched the land he so longed for.

At noon the sun showed itself for an instant. The second profited by this brightness to take its height. Then the sea becoming more billowy, we descended, and the panel closed.

An hour after, upon consulting the chart I saw the position of the Nautilus was marked 16 degrees 17' longitude, and 33 degrees 22' latitude, at 150 leagues from the nearest coast. There was no means of flight, and I leave you to imagine the rage of the Canadian, when I informed him of our situation.

For myself, I was not particularly sorry. I felt lightened of the load which had oppressed me, and was able to return with some degree of calmness to my accustomed work.

That night, about eleven o'clock, I received a most unexpected visit from Captain Nemo. He asked me very graciously if I felt fatigued from my watch of the preceding night. I answered in the negative.

"Then, M. Aronnax, I propose a curious excursion."

"Propose, Captain."

"You have hitherto only visited the submarine depths by daylight, under the brightness of the sun. Would it suit you to see them in the darkness of the night?"

"Most willingly."

"I warn you, the way will be tiring. We shall have far to walk, and must climb a mountain. The roads are not well kept."

"What you say, Captain, only heightens my curiosity; I am ready to follow you."

"Come then, Sir, we will put on our diving outfit."

Arrived at the robing room, I saw that neither of my companions nor any of the ship's crew were to follow us on this excursion. Captain Nemo had not even proposed my taking with me either Ned or Conseil. In a few moments we had put on our diving suits; they placed on our backs the reservoirs, abundantly filled with air, but no electric lamps were prepared. I called the captain's attention to the fact.

"They will be useless," he replied.

I thought I had not heard aright, but I could not repeat my observation, for the captain's head had already disappeared in its metal case. I finished harnessing myself, I felt them put an iron-pointed stick into my hand, and some minutes later, after going through the usual form, we set foot on the bottom of the Atlantic, at a depth of 150 fathoms. Midnight was near. The waters were profoundly dark, but Captain Nemo pointed out in the distance a reddish spot, a sort of large light shining brilliantly about two miles from the Nautilus. What this fire might be, what could feed it, why and how it lit up the liquid mass, I could not say. In any case, it did light our way, vaguely, it is true, but I soon accustomed myself to the peculiar darkness, and I understood, under such circumstances, the uselessness of the Ruhmkorff apparatus.

As we advanced, I heard a kind of pattering above my head. The noise redoubling, sometimes producing a continual shower, I soon understood the cause. It was rain falling violently, and crisping the surface of the waves. Instinctively the thought flashed across my mind that I should be wet through! By the water! in the midst of the water! I could not help laughing at the odd idea. But indeed, in the thick diving suit, the liquid element is no longer felt, and one only seems to be in an atmosphere somewhat denser than the terrestrial atmosphere. Nothing more.

After half an hour's walk the soil became stony. Medusae, microscopic crustacea, and pennatules lit it slightly with their phosphorescent gleam. I caught a glimpse of pieces of stone covered with millions of zoophytes, and masses of seaweed. My feet often slipped upon this viscous carpet of seaweed, and without my iron-tipped stick I should have fallen more than once. In turning round, I could still see the whitish lantern of the Nautilus beginning to pale in the distance.

But the rosy light which guided us increased and lit up the horizon. The presence of this fire under water puzzled me in the highest degree. Was it some electric effulgence? Was I going toward a natural phenomenon as yet unknown to the savants of the earth? Or

even (for this thought crossed my brain) had the hand of man aught to do with this conflagration? Had he fanned this flame? Was I to meet in these depths companions and friends of Captain Nemo whom he was going to visit, and who, like him, led this strange existence? Should I find down there a whole colony of exiles, who, weary of the miseries of this earth, had sought and found independence in the deep ocean? All these foolish and unreasonable ideas pursued me. And in this condition of mind, overexcited by the succession of wonders continually passing before my eyes, I should not have been surprised to meet at the bottom of the sea one of those submarine towns of which Captain Nemo dreamed.

Our road grew lighter and lighter. The white glimmer came in rays from the summit of a mountain about eight hundred feet high. But what I saw was simply a reflection, developed by the clearness of the waters. The source of this inexplicable light was a fire on the opposite side of the mountain.

In the midst of this stony maze, furrowing the bottom of the Atlantic, Captain Nemo advanced without hesitation. He knew this dreary road. Doubtless he had often traveled over it, and could not lose himself. I followed him with unshaken confidence. He seemed to me like a genie of the sea; and, as he walked before me, I could not help admiring his stature, which was outlined in black on the luminous horizon.

It was one in the morning when we arrived at the first slopes of the mountain; but to gain access to them we must venture through the difficult paths of a vast copse.

Yes; a copse of dead trees, without leaves, without sap, trees petrified by the action of the water, and here and there overtopped by gigantic pines. It was like a coal pit, still standing, holding by the roots to the broken soil, and whose branches, like fine black paper cuttings, showed distinctly on the watery ceiling. Picture, to yourself a forest in the Hartz, hanging on to the sides of the mountain, but a forest swallowed up. The paths were encumbered with seaweed and fucus, between which groveled a whole world of crustacea. I went along, climbing the rocks, striding over extended trunks, breaking the sea bindweed, which hung from one tree to the other; and frightening the fishes, which flew from branch to branch. Pressing onward, I felt no fatigue. I followed my guide, who was never tired. What a spectacle! how can I express it? how paint the aspect of those woods and rocks in this medium- their under parts dark and wild, the upper colored with red tints, by that light which the reflecting powers of the waters doubled? We climbed rocks, which fell directly after with gigantic bounds, and the low growling of an avalanche. To right and left ran long, dark galleries, where sight was lost. Here opened vast glades which the hand of man seemed to have worked; and I sometimes asked myself if some inhabitant of these submarine regions would not suddenly appear to me.

But Captain Nemo was still mounting. I could not stay behind. I followed boldly. My stick gave me good help. A false step would have been dangerous on the narrow passes sloping down to the sides of the gulfs; but I walked with firm step, without feeling any giddiness. Now I jumped a crevice the depth of which would have made me hesitate had it been among the glaciers on the land; now I ventured on the unsteady trunk of a tree, thrown across from one abyss to the other, without looking under my feet, having only eyes to admire the wild sights of this region.

There, monumental rocks, leaning on their regularly cut bases, seemed to defy all laws of equilibrium. From between their stony knees, trees sprang, like a jet under heavy pressure, and upheld others which upheld them. Natural towers, large scarps, cut

perpendicularly, like a "curtain," inclined at an angle which the laws of gravitation could never have tolerated in terrestrial regions.

Two hours after quitting the Nautilus, we had crossed the line of trees, and a hundred feet above our heads rose the top of the mountain, which cast a shadow on the brilliant irradiation of the opposite slope. Some petrified shrubs ran fantastically here and there. Fishes got up under our feet like birds in the long grass. The massive rocks were rent with impenetrable fractures, deep grottos, and unfathomable holes, at the bottom of which formidable creatures might be heard moving. My blood curdled when I saw enormous antennae blocking my road, or some frightful claw closing with a noise in the shadow of some cavity. Millions of luminous spots shone brightly in the midst of the darkness. They were the eyes of giant crustacea crouched in their holes; giant lobsters setting themselves up like halberdiers, and moving their claws with the clicking sound of pincers; titanic crabs, pointed like a gun on its carriage; and frightful-looking poulps, interweaving their tentacles like a living nest of serpents.

We had now arrived on the first platform, where other surprises awaited me. Before us lay some picturesque ruins, which betrayed the hand of man, and not that of the Creator. There were vast heaps of stone, among which might be traced the vague and shadowy forms of castles and temples, clothed with a world of blossoming zoophytes, and over which, instead of ivy, seaweed and fucus threw a thick vegetable mantle. But what was this portion of the globe which had been swallowed by cataclysms? Who had placed those rocks and stones like cromlechs of prehistoric times? Where was I? Whither had Captain Nemo's fancy hurried me?

I would fain have asked him; not being able to, I stopped him- I seized his arm. But, shaking his head and pointing to the highest point of the mountain, he seemed to say:

"Come, come along; come higher!"

I followed, and in a few minutes I had climbed to the top, which for a circle of ten yards commanded the whole mass of rock.

I looked down the side we had just climbed. The mountain did not rise more than seven or eight hundred feet above the level of the plain; but on the opposite side it commanded from twice that height the depths of this part of the Atlantic. My eyes ranged far over a large space lit by a violent fulguration. In fact, the mountain was a volcano.

At fifty feet above the peak, in the midst of a rain of stones and scoriae, a large crater was vomiting forth torrents of lava which fell in a cascade of fire into the bosom of the liquid mass. Thus situated, this volcano lit the lower plain like an immense torch, even to the extreme limits of the horizon. I said that the submarine crater threw up lava, but no flames. Flames require the oxygen of the air to feed upon, and cannot be developed under water; but streams of lava, having in themselves the principles of their incandescence, can attain a white heat, fight vigorously against the liquid element, and turn it to vapor by contact.

Rapid currents bearing all these gases in diffusion, and torrents of lava, slid to the bottom of the mountain like an eruption of Vesuvius on Terra del Greco.

There, indeed, under my eyes, ruined, destroyed, lay a town—its roofs open to the sky, its temples fallen, its arches dislocated, its columns lying on the ground, from which one could still recognize the massive character of Tuscan architecture. Farther on, some remains of a gigantic aqueduct; here the high base of an Acropolis, with the floating outline of a Parthenon; there traces of a quay, as if an ancient port had formerly abutted on the borders of the

ocean, and disappeared with its merchant vessels and its war galleys. Farther on again, long lines of sunken walls and broad deserted streets- a perfect Pompeii escaped beneath the waters. Such was the sight that Captain Nemo brought before my eyes!

Where was I? Where was I? I must know, at any cost. I tried to speak, but Captain Nemo stopped me by a gesture, and picking up a piece of chalk stone, advanced to a rock of black basalt, and traced the one word

#### ATLANTIS

What a light shot through my mind! Atlantis, the ancient Meropis of Theopompus, the Atlantis of Plato, that continent denied by Origen, Jamblichus, D'Anville, Malte-Brun, and Humboldt, who placed its disappearance among the legendary tales admitted by Posidonius, Pliny, Ammianus Marcellinus, Tertullian, Engel, Buffon, and D'Avezac. I had it there now before my eyes, bearing upon it the unexceptionable testimony of its catastrophe. The region thus engulfed was beyond Europe, Asia, and Lybia, beyond the columns of Hercules, where those powerful people, the Atlantides, lived, against whom the first wars of ancient Greece were waged.

Thus, led by the strangest destiny, I was treading underfoot the mountains of this continent, touching with my hand those ruins a thousand generations old, and contemporary with the geological epochs. I was walking on the very spot where the contemporaries of the first man had walked.

While I was trying to fix in my mind every detail of this grand landscape, Captain Nemo remained motionless, as if petrified in mute ecstasy, leaning on a mossy stone. Was he dreaming of those generations long since disappeared? Was he asking them the secret of human destiny? Was it here this strange man came to steep himself in historical recollections, and live again this ancient life- he who wanted no modern one? What would I not have given to know his thoughts, to share them, to understand them! We remained for an hour at this place, contemplating the vast plain under the brightness of the lava which was sometimes wonderfully intense. Rapid tremblings ran along the mountain caused by internal bubblings, deep noises distinctly transmitted through the liquid medium were echoed with majestic grandeur. At this moment the moon appeared through the mass of waters, and threw her pale rays on the buried continent. It was but a gleam, but what an indescribable effect! The captain rose, cast one last look on the immense plain, and then bade me follow him.

We descended the mountain rapidly, and the mineral forest once passed, I saw the lantern of the Nautilus shining like a star. The captain walked straight to it, and we got on board as the first rays of light whitened the surface of the ocean.

CHAPTER X.

## THE SUBMARINE COAL MINES.

THE next day, February 20, I awoke very late; the fatigues of the previous night had prolonged my sleep until eleven o'clock. I dressed quickly, and hastened to find the course the Nautilus was taking. The instruments showed it to be still toward the south, with a speed of twenty miles an hour, and a depth of fifty fathoms.

The species of fishes here did not differ much from those already noticed. There were rays of giant size, five yards long, and endowed with great muscular strength, which enabled them to shoot above the waves; sharks of many kinds, among others a glaucus of fifteen feet long, with triangular sharp teeth, and whose transparency

rendered it almost invisible in the water; humantins, prism-shaped, and clad with a tuberculous hide; sturgeons, resembling their congeners of the Mediterranean; trumpet syngnathes, a foot and a half long, furnished with grayish bladders, without teeth or tongue, and as supple as snakes.

Among bony fish, Conseil noticed some blackish makairas, about three yards long, armed at the upper jaw with a piercing sword; other bright-colored creatures, known in the time of Aristotle by the name of the sea dragon, which are dangerous to capture on account of the spikes on their back; also some coryphaenes, with brown backs marked with little blue stripes, and surrounded with a gold border; some beautiful dorades; and swordfish four-and-twenty feet long, swimming in troops, fierce animals, but rather herbivorous than carnivorous.

About four o'clock, the soil, generally composed of a thick mud mixed with petrified wood, changed by degrees, and it became more stony, and seemed strewn with conglomerate and pieces of basalt, with a sprinkling of lava and sulphurous obsidian. I thought that a mountainous region was succeeding the long plains; and accordingly, after a few evolutions of the Nautilus, I saw the southerly horizon blocked by a high wall which seemed to close all exit. Its summit evidently passed the level of the ocean. It must be a continent, or at least an island- one of the Canaries, or of the Cape Verde Islands. The bearings not being yet taken, perhaps designedly, I was ignorant of our exact position. In any case, such a wall seemed to me to mark the limits of that Atlantis, of which we had in reality passed over only the smallest part.

Much longer should I have remained at the window, admiring the beauties of sea and sky, but the panels closed. At this moment the Nautilus arrived at the side of this high perpendicular wall. What it would do, I could not guess. I returned to my room; it no longer moved. I laid myself down with the full intention of waking after a few hours' sleep; but it was eight o'clock the next day when I entered the saloon. I looked at the manometer. It told me that the Nautilus was floating on the surface of the ocean. Besides, I heard steps on the platform. I went to the panel. It was open; but, instead of broad daylight, as I expected, I was surrounded by profound darkness. Where were we? Was I mistaken? Was it still night? No; not a star was shining, and night has not that utter darkness.

- I knew not what to think, when a voice near me said:
- "Is that you, Professor?"
- "Ah, Captain," I answered, "where are we?"
- "Underground, Sir."
- "Underground!" I exclaimed. "And the Nautilus floating still?"
- "It always floats."
- "But I do not understand."

"Wait a few minutes, our lantern will be lit, and if you like light places, you will be satisfied."

I stood on the platform and waited. The darkness was so complete that I could not even see Captain Nemo; but looking to the zenith, exactly above my head, I seemed to catch an undecided gleam, a kind of twilight filling a circular hole. At this instant the lantern was lit, and its vividness dispelled the faint light. I closed my dazzled eyes for an instant, and then looked again. The Nautilus was stationary, floating near a mountain which formed a sort of quay. The lake then supporting it was a lake imprisoned by a circle of walls, measuring two miles in diameter, and six in circumference. Its level (the manometer showed) could only be the same as the outside level, for there must necessarily be a communication between the lake and the sea. The high partitions, leaning forward on their

base, grew into a vaulted roof bearing the shape of an immense funnel turned upside down, the height being about five or six hundred yards. At the summit was a circular orifice, by which I had caught the slight gleam of light, evidently daylight.

"Where are we?" I asked.

"In the very heart of an extinct volcano, the interior of which has been invaded by the sea, after some great convulsion of the earth. While you were sleeping, Professor, the Nautilus penetrated to this lagoon by a natural canal, which opens about ten yards beneath the surface of the ocean. This is its harbor of refuge, a sure, commodious, and mysterious one, sheltered from all gales. Show me, if you can, on the coasts of any of your continents or islands, a road which can give such perfect refuge from all storms."

"Certainly," I replied, "you are in safety here, Captain Nemo. Who could reach you in the heart of a volcano? But did I not see an opening at its summit?"

"Yes; its crater, formerly filled with lava, vapor, and flames, and which now gives entrance to the life-giving air we breathe."

"But what is this volcanic mountain?"

"It belongs to one of the numerous islands with which the sea is strewn- to vessels a simple sand bank- to us an immense cavern. Chance led me to discover it, and chance served me well."

"But of what use is this refuge, Captain? The Nautilus wants no port."

"No, Sir; but it wants electricity to make it move, and the wherewithal to make the electricity- sodium to feed the elements, coal from which to get the sodium, and a coal mine to supply the coal. And exactly on this spot the sea covers entire forests embedded during the geological periods, now mineralized, and transformed into coal; for me they are an inexhaustible mine."

"Your men follow the trade of miners here, then, Captain?"

"Exactly so. These mines extend under the waves like the mines of Newcastle. Here, in their diving suits, pickax and shovel in hand, my men extract the coal, which I do not even ask from the mines of the earth. When I burn this combustible for the manufacture of sodium, the smoke, escaping from the crater of the mountain, gives it the appearance of a still active volcano."

"And we shall see your companions at work?"

"No; not this time at least; for I am in a hurry to continue our submarine tour of the earth. So I shall content myself with drawing from the reserve of sodium I already possess. The time for loading is one day only, and we continue our voyage. So if you wish to go over the cavern, and make the round of the lagoon, you must take advantage of today, M. Aronnax."

I thanked the captain, and went to look for my companions, who had not yet left their cabin. I invited them to follow me without saying where we were. They mounted the platform. Conseil, who was astonished at nothing, seemed to look upon it as quite natural that he should wake under a mountain, after having fallen asleep under the waves. But Ned Land thought of nothing but finding whether the cavern had any exit. After breakfast, about ten o'clock, we went down on to the mountain.

"Here we are, once more on land," said Conseil.

Between the walls of the mountain and the waters of the lake, lay a sandy shore, which, at its greatest breadth, measured five hundred feet. On this soil one might easily make the tour of the lake. But the base of the high partitions was stony ground, with volcanic blocks and enormous pumice stones lying in picturesque heaps. All

these detached masses, covered with enamel, polished by the action of the subterraneous fires, shone resplendent by the light of our electric lantern. The mica dust from the shore, rising under our feet, flew like a cloud of sparks. The bottom now rose sensibly, and we soon arrived at long circuitous slopes, or inclined planes, which took us higher by degrees; but we were obliged to walk carefully among these conglomerates, bound by no cement, the feet slipping on the glassy trachyte, composed of crystal, feldspar, and quartz.

The volcanic nature of this enormous excavation was confirmed on all sides, and I pointed it out to my companions.

"Picture to yourselves," said I, "what this crater must have been when filled with boiling lava, and when the level of the incandescent liquid rose to the orifice of the mountain, as though melted on the top of a hot plate."

"I can picture it perfectly," said Conseil. "But, Sir, will you tell me why the Great Architect has suspended operations, and how it is that the furnace is replaced by the quiet waters of the lake?"

"Most probably, Conseil, because some convulsion beneath the ocean produced that very opening which has served as a passage for the Nautilus. Then the waters of the Atlantic rushed into the interior of the mountain. There must have been a terrible struggle between the two elements, a struggle which ended in the victory of Neptune. But many ages have run out since then and the submerged volcano is now a peaceable grotto."

"Very well," replied Ned Land, "I accept the explanation, Sir; but, in our own interests, I regret that the opening of which you speak was not made above the level of the sea."

"But, friend Ned" said Conseil, "if the passage had not been under the sea, the Nautilus could not have gone through it."

We continued ascending. The steps became more and more perpendicular and narrow. Deep excavations, which we were obliged to cross, cut them here and there; sloping masses had to be turned. We slid upon our knees and crawled along. But Conseil's dexterity and the Canadian's strength surmounted all obstacles. At a height of about thirty-one feet, the nature of the ground changed without becoming more practicable. To the conglomerate and trachyte succeeded black basalt, the first expanded in layers full of bubbles, the latter forming regular prisms, placed like a colonnade supporting the spring of the immense vault, an admirable specimen of natural architecture. Between the blocks of basalt wound long streams of lava, long since grown cold, incrusted with bituminous rays; and in some places there were spread large carpets of sulphur. A more powerful light shone through the upper crater, shedding a vague glimmer over these volcanic depressions forever buried in the bosom of this extinguished mountain.

But our upward march was soon stopped at a height of about two hundred fifty feet by impassable obstacles. There was a complete vaulted arch overhanging us, and our ascent was changed to a circular walk. At the last change vegetable life began to struggle with the mineral. Some shrubs, and even some trees, grew from the fractures of the walls. I recognized some euphorbias, with the caustic sugar coming from them; heliotropes, quite incapable of justifying their name, sadly drooped their clusters of flowers, both their color and perfume half gone. Here and there some chrysanthemums grew timidly at the foot of an aloe with long, sick-looking leaves. But, between the streams of lava, I saw some little violets still slightly perfumed, and I admit that I smelt them with delight. Perfume is the soul of the flower, and sea flowers, those splendid hydrophytes, have no soul.

We had arrived at the foot of some sturdy dragon trees, which

had pushed aside the rocks with their strong roots, when Ned Land exclaimed:

- "Ah! Sir, a hive! a hive!"
- "A hive!" I replied, with a gesture of incredulity.
- "Yes, a hive," repeated the Canadian, "and bees humming round it."

I approached, and was bound to believe my own eyes. There, at a hole bored in one of the dragon trees, were some thousands of these ingenious insects, so common in all the Canaries, and whose produce is so much esteemed. Naturally enough, the Canadian wished to gather the honey, and I could not well oppose his wish. A quantity of dry leaves, mixed with sulphur, he lit with a spark from his flint, and he began to smoke out the bees. The humming ceased by degrees, and the hive eventually yielded several pounds of the sweetest honey, with which Ned Land filled his haversack.

"When I have mixed this honey with the paste of the artocarpus," said he, "I shall be able to offer you a succulent cake."

- "Upon my word," said Conseil, "it will be gingerbread."
- "Never mind the gingerbread," said I, "let us continue our interesting walk."

At every turn of the path we were following, the lake appeared in all its length and breadth. The lantern lit up the whole of its peaceable surface which knew neither ripple nor wave. The Nautilus remained perfectly immovable. On the platform, and on the mountain, the ship's crew were working like black shadows clearly carved against the luminous atmosphere. We were now going round the highest crest of the first layers of rock which upheld the roof. I then saw that bees were not the only representatives of the animal kingdom in the interior of this volcano. Birds of prey hovered here and there in the shadows, or fled from their nests on the top of the rocks. There were sparrowhawks with white breasts, and kestrels, and down the slopes scampered, with their long legs, several fine fat bustards.

I leave anyone to imagine the covetousness of the Canadian at the sight of this savory game, and whether he did not regret having no gun. But he did his best to replace the lead by stones, and after several fruitless attempts, he succeeded in wounding a magnificent bird. To say that he risked his life twenty times before reaching it, is but the truth; but he managed so well, that the creature joined the honey cakes in his bag. We were now obliged to descend toward the shore, the crest becoming impracticable. Above us the crater seemed to gape like the mouth of a well. From this place the sky could be clearly seen, and clouds, dissipated by the west wind, leaving behind them, even on the summit of the mountain, their misty remnantscertain proof that they were only moderately high, for the volcano did not rise more than eight hundred feet above the level of the ocean.

Half an hour after the Canadian's last exploit, we had regained the inner shore. Here the flora was represented by large carpets of marine crystal, a little umbelliferous plant very good to pickle, which also bears the name of pierce stone, and sea fennel. Conseil gathered some bundles of it. As to the fauna, it might be counted by thousands of crustacea of all sorts, lobsters, crabs, palaemons, spider crabs, chameleon shrimps, and a large number of shells, rockfish, and limpets. Three quarters of an hour later, we had finished our circuitous walk and were on board. The crew had just finished loading the sodium, and the Nautilus could have left that instant. But Captain Nemo gave no order. Did he wish to wait until night, and leave the submarine passage secretly? Perhaps so. Whatever it might be, the next day, the Nautilus, having left its port, steered clear of an land at a few yards beneath the waves of the Atlantic.

THAT day the Nautilus crossed a singular part of the Atlantic Ocean. No one can be ignorant of the existence of a current of warm water, known by the name of the Gulf Stream. After leaving the Gulf of Florida, it went in the direction of Spitzbergen. But before entering the Gulf of Mexico, about the forty-fifth degree of north latitude, this current divides into two arms, the principal one going toward the coast of Ireland and Norway, while the second bends to the south about the height of the Azores; then, touching the African shore, and describing a lengthened oval, returns to the Antilles. This second arm- it is rather a collar than an armsurrounds with its circles of warm water that portion of the cold, quiet, immovable ocean called the Sargasso Sea, a perfect lake in the open Atlantic: it takes no less than three years for the great current to pass round it. Such was the region the Nautilus was now visiting, a perfect meadow, a close carpet of seaweed, fucus, and tropical berries, so thick and so compact that the stern of a vessel could hardly tear its way through it.

And Captain Nemo, not wishing to entangle his screw in this herbaceous mass, kept some yards beneath the surface of the waves. The name Sargasso comes from the Spanish word "sargazzo," which signifies kelp. This kelp, or varech, or berry plant, is the principal formation of this immense bank. And this is the reason, according to the learned Maury, the author of The Physical Geography of the Globe, why these hydrophytes unite in the peaceful basin of the Atlantic. The only explanation which can be given, he says, seems to me to result from the experience known to all the world. Place in a vase some fragments of cork or other floating body, and give to the water in the vase a circular movement, the scattered fragments will unite in a group in the center of the liquid surface. that is to say, in the part least agitated. In the phenomenon we are considering, the Atlantic is the vase, the Gulf Stream the circular current, and the Sargasso Sea the central point at which the floating bodies unite.

I share Maury's opinion, and I was able to study the phenomenon in the very midst, where vessels rarely penetrate. Above us floated products of all kinds, heaped up among these brownish plants; trunks of trees torn from the Andes or the Rocky Mountains, and floated by the Amazon or the Mississippi; numerous wrecks, remains of keels or ships' bottoms, side planks stove in, and so weighted with shells and barnacles, that they could not again rise to the surface. And time will one day justify Maury's other opinion, that these substances thus accumulated for ages, will become petrified by the action of the water, and will then form inexhaustible coal mines- a precious reserve prepared by farseeing Nature for the moment when men shall have exhausted the mines of continents.

In the midst of this inextricable mass of plants and seaweed, I noticed some charming pink halcyons and actiniae, with their long tentacles trailing after them; medusae, green, red, and blue, and the great rhyostoms of Cuvier, the large umbrella of which was bordered and festooned with violet.

All the day of February 22 we passed in the Sargasso Sea, where such fish as are partial to marine plants and fuci find abundant nourishment. The next, the ocean had returned to its accustomed aspect. From this time for nineteen days, from February 23 to March 12, the Nautilus kept in the middle of the Atlantic, carrying us at a constant speed of a hundred leagues in twenty-four hours. Captain Nemo evidently intended accomplishing his submarine program, and I imagined that he intended, after doubling Cape Horn, to return to

the Australian seas of the Pacific. Ned Land had cause for fear. In these large seas, void of islands, we could not attempt to leave the boat. Nor had we any means of opposing Captain Nemo's will.

Our only course was to submit; but what we could neither gain by force nor cunning, I liked to think might be obtained by persuasion. This voyage ended, would he not consent to restore our liberty, under an oath never to reveal his existence? an oath of honor which we should have religiously kept. But we must consider that delicate question with the captain. But was I free to claim this liberty? Had he not himself said from the beginning, in the firmest manner, that the secret of his life exacted from him our lasting imprisonment on board the Nautilus? And would not my four months' silence appear to him a tacit acceptance of our situation? And would not a return to the subject result in raising suspicions which might be hurtful to our projects, if at some future time a favorable opportunity offered to return to them?

During the nineteen days mentioned above, no incident of any note happened to signalize our voyage. I saw little of the captain; he was at work. In the library I often found his books left open, especially those on natural history. My work on submarine depths, conned over by him, was covered with marginal notes, often contradicting my theories and systems; but the captain contented himself with thus purging my work; it was very rare for him to discuss it with me. Sometimes I heard the melancholy tones of his organ; but only at night, in the midst of the deepest obscurity, when the Nautilus slept upon the deserted ocean. During this part of our voyage we sailed whole days on the surface of the waves. The sea seemed abandoned. A few sailing vessels, on the road to India, were making for the Cape of Good Hope. One day we were followed by the boats of a whaler, who, no doubt, took us for some enormous whale of great price; but Captain Nemo did not wish the worthy fellows to lose their time and trouble, so ended the chase by plunging under the water.

Our navigation continued until March 13; that day the Nautilus was employed in taking soundings, which greatly interested me. We had then made about 13,000 leagues since our departure from the high seas of the Pacific. The bearings gave us 45 degrees 37' south latitude, and 37 degrees 53' west longitude. It was the same water in which Captain Denham of the Herald sounded 7,000 fathoms without finding the bottom. There, too, Lieutenant Parker, of the American frigate Congress, could not touch the bottom with 15,140 fathoms. Captain Nemo intended seeking the bottom of the ocean by a diagonal sufficiently lengthened by means of lateral planes placed at an angle of forty-five degrees with the water line of the Nautilus. Then the screw set to work at its maximum speed, its four blades beating the waves with indescribable force. Under this powerful pressure, the hull of the Nautilus quivered like a sonorous chord, and sank regularly under the water.

At 7,000 fathoms I saw some blackish tops rising from the midst of the waters; but these summits might belong to high mountains like the Himalayas or Mont Blanc, even higher; and the depth of the abyss remained incalculable. The Nautilus descended still lower, in spite of the great pressure. I felt the steel plates tremble at the fastenings of the bolts; its bars bent, its partitions groaned; the windows of the saloon seemed to curve under the pressure of the waters. And this firm structure would doubtless have yielded, if, as its captain said, it had not been capable of resistance like a solid block. In skirting the declivity of these rocks, lost under the water, I still saw some shells, some serpulae and spinorbes, still living, and some specimens of asteriads. But soon this last representative

of animal life disappeared; and at the depth of more than three leagues, the Nautilus had passed the limits of submarine existence even as a balloon does when it rises above the respirable atmosphere. We had attained a depth of 16,000 yards (four leagues), and the sides of the Nautilus then bore a pressure of 1,600 atmospheres, that is to say, 3,200 pounds to each square two fifths of an inch of its surface.

"What a situation to be in!" I exclaimed. "To overrun these deep regions where man has never trod! Look, Captain, look at these magnificent rocks, these uninhabited grottoes, these lowest receptacles of the globe, where life is no longer possible! What unknown sights are here! Why should we be unable to preserve a remembrance of them?"

"Would you like to carry away more than the remembrance?" said Captain Nemo.

"What do you mean by those words?"

"I mean to say that nothing is easier than to take a photographic view of this submarine region."

I had not time to express my surprise at this new proposition, when, at Captain Nemo's call, an objective was brought into the saloon. Through the widely opened panel, the liquid mass was bright with electricity, which was distributed with such uniformity, that not a shadow, not a gradation, was to be seen in our manufactured light. The Nautilus remained motionless, the force of its screw subdued by the inclination of its planes; the instrument was propped on the bottom of the oceanic site, and in a few seconds we had obtained a perfect negative. I here give the positive, from which may be seen those primitive rocks, which have never looked upon the light of heaven; that lowest granite which forms the foundation of the globe; those deep grottoes, woven in the stony mass whose outlines were of such sharpness, and the border line of which is marked in black, as if done by the brush of some Flemish artist. Beyond that again, a horizon of mountains, an admirable undulating line, forming the prospective of the landscape. I cannot describe the effect of these smooth, black, polished rocks, without moss, without a spot, and of strange forms, standing solidly on the sandy carpet which sparkled under the jets of our electric light.

But the operation being over, Captain Nemo said, "Let us go up; we must not abuse our position nor expose the Nautilus too long to such great pressure."

"Go up again!" I exclaimed.

"Hold well on."

I had not time to understand why the captain cautioned me thus, when I was thrown forward on to the carpet. At a signal from the captain, its screw was shipped, and its blades raised vertically; the Nautilus shot into the air like a balloon, rising with stunning rapidity, and cutting the mass of waters with a sonorous agitation. Nothing was visible; and in four minutes it had shot through the four leagues which separated it from the ocean, and, after emerging like a flying fish, fell, making the waves rebound to an enormous height.

CHAPTER XII.

## CACHALOTS AND WHALES.

DURING the nights of March 13 and 14, the Nautilus returned to its southerly course. I fancied that, when on a level with Cape Horn, he would turn the helm westward, in order to beat the Pacific seas, and so complete the tour of the world. He did nothing of the kind, but continued on his way to the southern regions. Where was he going to? to the pole? It was madness! I began to think that the captain's

temerity justified Ned Land's fears. For some time past the Canadian had not spoken to me of his projects of flight; he was less communicative, almost silent. I could see that this lengthened imprisonment was weighing upon him, and I felt that rage was within him. When he met the captain, his eyes lit up with suppressed anger; and I feared that his natural violence would lead him into some extreme. That day, March 14, Conseil and he came to me in my room. I inquired the cause of their visit.

- "A simple question to ask you, Sir," replied the Canadian.
- "Speak, Ned."
- "How many men are there on board the Nautilus, do you think?"
- "I cannot tell, my friend."
- "I should say that its working does not require a large crew."
- "Certainly, under existing conditions, ten men, at the most, ought to be enough."
  - "Well, why should there be any more?"
- "Why?" I replied, looking fixedly at Ned Land, whose meaning was easy to guess. "Because," I added, "if my surmises are correct, and if I have well understood the captain's existence, the Nautilus is not only a vessel; it is also a place of refuge for those who, like its commander, have broken every tie upon earth."
- "Perhaps so," said Conseil; "but, in any case, the Nautilus can only contain a certain number of men. Could not you, sir, estimate their maximum?"
  - "How, Conseil?"
- "By calculation; given the size of the vessel, which you know, sir, and consequently, the quantity of air it contains, knowing also how much each man expends at a breath, and comparing these results with the fact that the Nautilus is obliged to go to the surface every twenty-four hours."

Conseil had not finished the sentence before I saw what he was driving at.

"I understand," said I; "but that calculation, though simple enough, can give but a very uncertain result."

"Never mind," said Ned Land, urgently.

"Here it is, then," said I. "In one hour each man consumes the oxygen contained in twenty gallons of air; and in twenty-four, that contained in 480 gallons. We must, therefore, find how many times 480 gallons of air the Nautilus contains."

"Just so," said Conseil.

"Or," I continued, "the size of the Nautilus being 1,500 tons; and one ton holding 200 gallons, it contains 300,000 gallons of air, which, divided by 480, gives a quotient of 625. Which means to say, strictly speaking, that the air contained in the Nautilus would suffice for 625 men for twenty-four hours."

"Six hundred twenty-five!" repeated Ned.

"But remember, that all of us, passengers, sailors, and officers included, would not form a tenth part of that number."

"Still too many for three men," murmured Conseil.

The Canadian shook his head, passed his hand across his forehead, and left the room without answering.

"Will you allow me to make one observation, Sir?" said Conseil.
"Poor Ned is longing for everything that he cannot have. His past life is always present to him; everything that we are forbidden he regrets. His head is full of old recollections. And we must understand him. What had he to do here? Nothing; he is not learned like you, Sir; and has not the same taste for the beauties of the sea that we have. He would risk everything to be able to go once more into a tavern in his own country."

Certainly the monotony on board must seem intolerable to the

Canadian, accustomed as he was to a life of liberty and activity. Events were rare which could rouse him to any show of spirit; but that day an event did happen which recalled the bright days of the harpooner. About eleven in the morning, being on the surface of the ocean, the Nautilus fell in with a troop of whales- an encounter which did not astonish me, knowing that these creatures hunted to the death, had taken refuge in high latitudes.

We were seated on the platform, with a quiet sea. The month of October in those latitudes gave us some lovely autumnal days. It was the Canadian- he could not be mistaken- who signaled a whale on the eastern horizon. Looking attentively one might see its black back rise and fall with the waves five miles from the Nautilus.

"Ah!" exclaimed Ned Land, "if I was on board a whaler now, such a meeting would give me pleasure. It is one of large size. See with what strength its blowholes throw up columns of air and steam! Confound it, why am I bound to these steel plates?"

"What, Ned," said I, "you have not forgotten your old ideas of fishing?"

"Can a whaler ever forget his old trade, Sir? Can he ever tire of the emotions caused by such a chase?"

"You have never fished in these seas, Ned?"

"Never, Sir; in the northern only, and as much in Bering as in Davis Straits."

"Then the southern whale is still unknown to you. It is the Greenland whale you have hunted up to this time, and that would not risk passing through the warm waters of the equator. Whales are. localized, according to their kinds, in certain seas which they never leave. And if one of these creatures went from Bering to Davis Straits, it must be simply because there is a passage from one sea to the other, either on the American or the Asiatic side."

"In that case, as I have never fished in these seas, I do not know the kind of whale frequenting them."

"I have told you, Ned."

"A greater reason for making their acquaintance," said Conseil.

"Look! look!" exclaimed the Canadian, "they approach; they aggravate me; they know that I cannot get at them!"

Ned stamped his feet. His hand trembled, as he grasped an imaginary harpoon.

"Are these cetacea as large as those of the northern seas?" asked he.

"Very nearly, Ned."

"Because I have seen large whales, Sir, whales measuring a hundred feet. I have even been told that those of Hullamoch and Umgallick, of the Aleutian Islands, are sometimes a hundred fifty feet long."

"That seems to me exaggeration. These creatures are only balaenopterons, provided with dorsal fins; and, like the cachalots, are generally much smaller than the Greenland whale."

"Ah!" exclaimed the Canadian, whose eyes had never left the ocean, "they are coming nearer; they are in the same water as the Nautilus!"

Then, returning to the conversation, he said:

"You spoke of the cachalot as a small creature. I have heard of gigantic ones. They are intelligent cetacea. It is said of some that they cover themselves with seaweed and fucus, and then are taken for islands. People encamp upon them, and settle there; light a fire"-

"And build houses," said Conseil.

"Yes, joker," said Ned Land. "And one fine day the creature plunges, carrying with it all the inhabitants to the bottom of the sea."

"Something like the travels of Sinbad the Sailor," I replied, laughing.

"Ah!" suddenly exclaimed Ned Land, "it is not one whale; there are ten- there are twenty- it is a whole troop! And I not able to do anything! hands and feet tied!"

"But, friend Ned," said Conseil, "why do you not ask Captain Nemo's permission to chase them?"

Conseil had not finished his sentence when Ned Land lowered himself through the panel to seek the captain. A few minutes afterward the two appeared together on the platform.

Captain Nemo watched the troop of cetacea playing on the waters about a mile from the Nautilus.

"They are southern whales," said he; "there goes the fortune of a whole fleet of whalers."

"Well, sir," asked the Canadian, "can I not chase them, if only to remind me of my old trade of harpooner?"

"And to what purpose?" replied Captain Nemo; "only to destroy! We have nothing to do with whale oil on board."

"But, Sir," continued the Canadian, "in the Red Sea you allowed us to follow the dugong."

"Then it was to procure fresh meat for my crew. Here it would be killing for killing's sake. I know that is a privilege reserved for men, but I do not approve of such murderous pastime. In destroying the southern whale (like the Greenland whale, an inoffensive creature), your traders do a culpable action, Master Land. They have already depopulated the whole of Baffin's Bay, and are annihilating a class of useful animals. Leave the unfortunate cetacea alone. They have plenty of natural enemies, cachalots, swordfish, and sawfish, without your troubling them."

The captain was right. The barbarous and inconsiderate greed of these fishermen will one day cause the disappearance of the last whale in the ocean. Ned Land whistled "Yankee-Doodle" between his teeth, thrust his hands into his pockets, and turned his back upon us. But Captain Nemo watched the troop of cetacea, and, addressing me, said:

"I was right in saying that whales had natural enemies enough, without counting man. These will have plenty to do before long. Do you see, M. Aronnax, about eight miles to leeward, those blackish moving points?"

"Yes, Captain," I replied.

"Those are cachalots- terrible animals, which I have sometimes met in troops of two or three hundred. As to those, they are cruel mischievous creatures; they would be right in exterminating them."

The Canadian turned quickly at the last words.

"Well, Captain," said he, "it is still time, in the interest of the whales."

"It is useless to expose oneself, Professor. The Nautilus will disperse them. It is armed with a steel spur as good as Master Land's harpoon, I imagine."

The Canadian did not put himself out enough to shrug his shoulders. Attack cetacea with blows of a spur! Who had ever heard of such a thing?

"Wait, M. Aronnax," said Captain Nemo. "We will show you something you have never yet seen. We have no pity for these ferocious creatures. They are nothing but mouth and teeth."

Mouth and teeth! No one could better describe the macrocephalous cachalot, which is sometimes more than seventy-five feet long. Its enormous head occupies one-third of its entire body. Better armed than the whale, whose upper jaw is furnished only with whalebone, it is supplied with twenty-five large tusks, about eight inches long, cylindrical and conical at the top, each weighing two pounds. It is in the upper part of this enormous head, in great cavities divided by cartilages, that is to be found from six to eight hundred pounds of

that precious oil called spermaceti. The cachalot is a disagreeable creature, more tadpole than fish, according to Fredol's description. It is badly formed, the whole of its left side being (if we may say it) a "failure," and being only able to see with its right eye.

But the formidable troop was nearing us. They had seen the whales and were preparing to attack them. One could judge beforehand that the cachalots would be victorious, not only because they were better built for attack than their inoffensive adversaries, but also because they could remain longer under water without coming to the surface. There was only just time to go to the help of the whales. The Nautilus went under water. Conseil, Ned Land, and I took our places before the window in the saloon, and Captain Nemo joined the pilot in his cage to work his apparatus as an engine of destruction. Soon I felt the beatings of the screw quicken, and our speed increased.

The battle between the cachalots and the whales had already begun when the Nautilus arrived. They, did not at first show any fear at the sight of this new monster joining in the conflict. But they soon had to guard against its blows. What a battle! The Nautilus was nothing but a formidable harpoon, brandished by the hand of its captain. It hurled itself against the fleshy mass, passing through from one part to the other, leaving behind it two quivering halves of the animal. It could not feel the formidable blows from their tails upon its sides, nor the shock which it produced itself, much more. One cachalot killed, it ran at the next, tacked on the spot that it might not miss its prey, going forward and backward, answering to its helm, plunging when the cetacean dived into the deep waters, coming up with it when it returned to the surface, striking it front or sideways, cutting or tearing in all directions, and at any pace, piercing it with its terrible spur. What carnage! What a noise on the surface of the waves! What sharp hissing, and what snorting peculiar to these enraged animals! In the midst of these waters, generally so peaceful, their tails made perfect billows.

For one hour this wholesale massacre continued, from which the cachalots could not escape. Several times ten or twelve united tried to crush the Nautilus by their weight. From the window we could see their enormous mouths, studded with tusks, and their formidable eyes. Ned Land could not contain himself, he threatened and swore at them. We could feel them clinging to our vessel like dogs worrying a wild boar in a copse. But the Nautilus, working its screw, carried them here and there, or to the upper levels of the ocean, without caring for their enormous weight, nor the powerful strain on the vessel. At length, the mass of cachalots broke up, the waves became quiet, and I felt that we were rising to the surface. The panel opened, and we hurried on to the platform. The sea was covered with mutilated bodies. A formidable explosion could not have divided and torn this fleshy mass with more violence. We were floating amid gigantic bodies, bluish on the back and white underneath, covered with enormous protuberances. Some terrified cachalots were flying toward the horizon. The waves were dyed red for several miles, and the Nautilus floated in a sea of blood. Captain Nemo joined us.

"Well, Master Land?" said he.

"Well, Sir," replied the Canadian, whose enthusiasm had somewhat calmed; "it is a terrible spectacle, certainly. But I am not a butcher. I am a hunter, and I call this a butchery."

"It is a massacre of mischievous creatures," replied the captain; "and the Nautilus is not a butcher's knife."

"I like my harpoon better," said the Canadian.

"Everyone to his own," answered the captain, looking fixedly at Ned Land.

I feared he would commit some act of violence, which would end

in sad consequences. But his anger was turned by the sight of a whale which the Nautilus had just come up with. The creature had not quite escaped from the cachalot's teeth. I recognized the southern whale by its flat head, which is entirely black. Anatomically, it is distinguished from the white whale and the North Cape whale by the seven cervical vertebrae, and it has two more ribs than its congeners. The unfortunate cetacean was lying on its side, riddled with holes from the bites, and quite dead. From its mutilated fin still hung a young whale, which it could not save from the massacre. Its open mouth let the water flow in and out, murmuring like the waves breaking on the shore.

Captain Nemo steered close to the corpse of the creature. Two of his men mounted its side, and I saw, not without surprise, that they were drawing from its breasts all the milk which they contained, that is to say, about two or three tons. The captain offered me a cup of the milk, which was still warm. I could not help showing my repugnance, to the drink; but he assured me that it was excellent, and not to be distinguished from cow's milk. I tasted it, and was of his opinion. It was a useful reserve to us, for in the shape of salt butter or cheese it would form an agreeable variety from our ordinary food. From that day I noticed with uneasiness that Ned Land's ill will toward Captain Nemo increased, and I resolved to watch the Canadian's gestures closely.

CHAPTER XIII.

## THE ICEBERG.

THE Nautilus was steadily pursuing its southerly course, following the fiftieth meridian with considerable speed. Did he wish to reach. the pole? I did not think so, for every attempt to reach that point had hitherto failed. Again the season was far advanced, for, in the antarctic regions, March 13 corresponds with September 13 of northern regions, which begin at the equinoctial season. On March 14 I saw floating ice in latitude 55 degrees, merely pale bits of debris from twenty to twenty-five feet long, forming banks over which the sea curled. The Nautilus remained on the surface of the ocean. Ned Land, who had fished in the arctic seas, was familiar with its icebergs: but Conseil and I admired them for the first time. In the atmosphere toward the southern horizon stretched a white dazzling band. English whalers have given it the name of "ice blink." However thick the clouds may be, it is always visible, and announces the presence of an ice pack or bank. Accordingly, larger blocks soon appeared, whose brilliancy changed with the caprices of the fog. Some of these masses showed green veins, as if long, undulating lines had been traced with sulphate of copper; others resembled enormous amethysts with the light shining through them. Some reflected the light of day upon a thousand crystal facets. Others shaded with vivid calcareous reflections resembled a perfect town of marble. The more we neared the south, the more these floating islands, increased both in number and importance.

At the sixtieth degree of latitude, every pass had disappeared. But seeking carefully, Captain Nemo soon found a narrow opening, through which he boldly slipped, knowing, however, that it would close behind him. Thus, guided by this clever hand, the Nautilus passed through all the ice with a precision which quite charmed Conseil; icebergs or mountains, ice fields or smooth plains, seeming to have no limits, drift ice or floating ice, packs, plains broken up, called palchs when they are circular, and streams when they are made up of long strips. The temperature was very low; the thermometer exposed to the air marked two or three degrees below zero, but we were

warmly clad with fur, at the expense of the sea bear and seal. The interior of the Nautilus, warmed regularly by its electric apparatus, defied the most intense cold. Besides, it would only have been necessary to go some yards beneath the waves to find a more bearable temperature. Two months earlier we should have had perpetual daylight in these latitudes; but already we had three or four hours of night, and by and by there would be six months of darkness in these circumpolar regions. On March 15 we were in the latitude of New Shetland and South Orkney. The captain told me that formerly numerous tribes of seals inhabited them; but that English and American whalers, in their rage for destruction, massacred both old and young; thus where there was once life and animation, they had left silence and death.

About eight o'clock in the morning of March 16 the Nautilus, following the fifty-fifth meridian, cut the antarctic polar circle. Ice surrounded us on all sides, and closed the horizon. But Captain Nemo went from one opening to another, still going higher. I cannot express my astonishment at the beauties of these new regions. The ice took most surprising forms. Here the grouping formed an Oriental town, with innumerable mosques and minarets; there a fallen city thrown to the earth, as it were, by some convulsion of nature. The whole aspect was constantly changed by the oblique rays of the sun, or lost in the grayish fog amidst hurricanes of snow. Detonations and falls were heard on all sides, great overthrows of icebergs, which altered the whole landscape like a diorama. Often seeing no exit, I thought we were definitely prisoners; but instinct guiding him at the slightest indication, Captain Nemo would discover a new pass. He was never mistaken when he saw the thin threads of bluish water trickling along the ice fields; and I had no doubt that he had already ventured into the midst of these antarctic seas before.

On March 16, however, the ice fields absolutely blocked our road. It was not the iceberg itself, as yet, but vast fields cemented by the cold. But this obstacle could not stop Captain Nemo; he hurled himself against it with frightful violence. The Nautilus entered the brittle mass like a wedge, and split it with frightful crackings. It was the battering-ram of the ancients hurled by infinite strength. The ice, thrown high in the air, fell like hail around us. By its own power of impulsion our apparatus made a canal for itself; sometimes carried away by its own impetus it lodged on the ice field, crushing it with its weight, and sometimes buried beneath it, dividing it by a simple pitching movement, producing large rents in it.

Violent gales assailed us at this time, accompanied by thick fogs, through which, from one end of the platform to the other, we could see nothing. The wind blew sharply from all points of the compass, and the snow lay in such hard heaps that we had to break it with blows of a pickax. The temperature was always at five degrees below zero; every outward part of the Nautilus was covered with ice. A rigged vessel could never have worked its way there, for all the rigging would have been entangled in the blocked-up gorges. A vessel without sails, with electricity for its motive power, and wanting no coal, could alone brave such high latitudes. At length, on March 18, after many useless assaults, the Nautilus was positively blocked. It was no longer either streams, packs, or ice fields, but an interminable and immovable barrier, formed by mountains soldered together.

"An iceberg!" said the Canadian to me.

I knew that to Ned Land, as well as to all other navigators who had preceded us, this was an inevitable obstacle. The sun appearing for an instant at noon, Captain Nemo took an observation as near as possible which gave our situation at 51 degrees 30' longitude and 67

degrees 39' of south latitude. We had advanced one degree more in this antarctic region. Of the liquid surface of the sea there was no longer a glimpse. Under the spur of the Nautilus lay stretched a vast plain, entangled with confused blocks. Here and there sharp points, and slender needles rising to a height of two hundred feet; farther on a steep shore, hewn as it were with an ax, and clothed with grayish tints; huge mirrors, reflecting a few rays of sunshine half drowned in the fog. And over this desolate face of Nature a stern silence reigned, scarcely broken by the flapping of the wings of petrels and puffins. Everything was frozen- even the noise. The Nautilus was then obliged to stop in its adventurous course amid these fields of ice. In spite of our efforts in spite of the powerful means employed to break up the ice, the Nautilus remained immovable. Generally, when we can proceed no farther, we have return still open to us; but here return was as impossible as advance, for every pass had closed behind us; and for the few moments when we were stationary, we were likely to be entirely blocked, which did, indeed, happen about two o'clock in the afternoon, the fresh ice forming around its sides with astonishing rapidity. I was obliged to admit that Captain Nemo was more than imprudent. I was on the platform at that moment. The captain had been observing our situation for some time past, when he said to me:

"Well, Sir, what do you think of this?"

"I think that we are caught, Captain."

"So, M. Aronnax, you really think that the Nautilus cannot disengage itself?"

"With difficulty, Captain; for the season is already too far advanced for you to reckon on the breaking up of the ice."

"Ah! Sir," said Captain Nemo, in an ironical tone, "you will always be the same. You see nothing but difficulties and obstacles. I affirm that not only can the Nautilus disengage itself, but also that it can go farther still."

"Farther to the south?" I asked, looking at the captain.

"Yes, Sir; it shall go to the Pole."

"To the Pole!" I exclaimed, unable to repress a gesture of incredulity.

"Yes," replied the captain, coldly, "to the Antarctic Pole- to that unknown point whence springs every meridian of the globe. You know whether I can do as I please with the Nautilus!"

Yes, I knew that. I knew that this man was bold, even to rashness. But to conquer those obstacles which bristled round the South Pole, rendering it more inaccessible than the north, which had not yet been reached by the boldest navigators— was it not a mad enterprise, one which only a maniac would have conceived? It then came into my head to ask Captain Nemo if he had ever discovered that pole which had never yet been trodden by a human creature? "No, sir," he replied; "but we will discover it together. Where others have failed, I will not fail. I have never yet led my Nautilus so far into southern seas; but, I repeat, it shall go farther yet."

"I can well believe you, Captain," said I, in a slightly ironical tone. "I believe you! Let us go ahead! There are no obstacles for us! Let us smash this iceberg! Let us blow it up; and if it resists, let us give the Nautilus wings to fly over it!"

"Over it, sir!" said Captain Nemo, quietly; "no, not over it, but under it!"

"Under it!" I exclaimed, a sudden idea of the captain's projects flashing upon my mind. I understood; the wonderful qualities of the Nautilus were going to serve us in this superhuman enterprise.

"I see we are beginning to understand each other, Sir," said the captain, half smiling. "You begin to see the possibility- I should say

the success- of this attempt. That which is impossible for an ordinary vessel, is easy to the Nautilus. If a continent lies before the Pole, it must stop before the continent; but if, on the contrary, the pole is washed by open sea, it will go even to the Pole."

"Certainly," said I, carried away by the captain's reasoning;
"if the surface of the sea is solidified by the ice, the lower
depths are free by the providential law which has placed the maximum
of density of the waters of the ocean one degree higher than
freezing point; and, if I am not mistaken, the portion of this iceberg
which is above the water, is as four to one to that which is below"

"Very nearly, Sir; for one foot of iceberg above the sea there are three below it. If these ice mountains are not more than 300 feet above the surface, they are not more than 900 beneath. And what are 900 feet to the Nautilus?"

"Nothing, Sir."

"It could even seek at greater depths that uniform temperature of sea water, and there brave with impunity the thirty or forty degrees of surface cold."

"Just so, Sir- just so," I replied, getting animated.

"The only difficulty," continued Captain Nemo, "is that of remaining several days without renewing our provision of air."

"Is that all? The Nautilus has vast reservoirs; we can fill them, and they will supply us with all the oxygen we want."

"Well thought of, M. Aronnax," replied the captain, smiling.
"But not wishing you to accuse me of rashness, I will first give you all my objections."

"Have you any more to make?"

"Only one. It is possible, if the sea exists at the South Pole, that it may be covered; and, consequently, we shall be unable to come to the surface."

"Good, Sir! but do you forget that the Nautilus is armed with a powerful spur, and could we not send it diagonally against these fields of ice, which would open at the shock?"

"Ah, Sir, you are full of ideas today."

"Besides, Captain," I added, enthusiastically, "why should we not find the sea open at the South Pole as well as at the North? The frozen poles and the poles of the earth do not coincide, either in the southern or in the northern regions; and, until it is proved to the contrary, we may suppose either a continent or an ocean free from ice at these two points of the globe."

"I think so too, M. Aronnax," replied Captain Nemo. "I only wish you to observe that, after having made so many objections to my project, you are now crushing me with arguments in its favor!"

The preparations for this audacious attempt now began. The powerful pumps of the Nautilus were working air into the reservoirs and storing it at high pressure. About four o'clock, Captain Nemo announced the closing of the panels on the platform. I threw one last look at the massive iceberg which we were going to cross. The weather was clear, the atmosphere pure enough, the cold very great, being twelve degrees below zero; but the wind having gone down, this temperature was not so unbearable. About ten men mounted the sides of the Nautilus, armed with pickaxes to break the ice around the vessel, which was soon free. The operation was quickly performed, for the fresh ice was still very thin. We all went below. The usual reservoirs were filled with the newly liberated water, and the Nautilus soon descended. I had taken my place with Conseil in the saloon; through the open window we could see the lower beds of the southern ocean. The thermometer went up, the needle of the compass deviated on the dial. At about nine hundred feet, as Captain Nemo had forseen, we were floating beneath the undulating bottom of the

iceberg. But the Nautilus went lower still—it went to the depths of four hundred fathoms. The temperature of the water at the surface showed twelve degrees, it was now only eleven; we had gained two. I need not say the temperature of the Nautilus was raised by its heating apparatus to a much higher degree; every maneuver was accomplished with wonderful precision.

"We shall pass it, if you please, Sir, " said Conseil.

"I believe we shall," I said, in a tone of firm conviction.

In this open sea, the Nautilus had taken its course direct to the pole, without leaving the fifty-second meridian. From 67 degrees 30' to 90 degrees, twenty-two degrees and a half of latitude remained to travel; that is, about five hundred leagues. The Nautilus kept up a mean speed of twenty-six miles an hour- the speed of an express train. If that was kept up, in forty hours we should reach the Pole.

For a part of the night the novelty of the situation kept us at the window. The sea was lit with the electric lantern; but it was deserted; fishes did not sojourn in these imprisoned waters; they found there only a passage to take them from the Antarctic Ocean to the open polar sea. Our pace was rapid; we could feel it by the quivering of the long steel body. About two in the morning, I took some hours' repose, and Conseil did the same. In crossing the waist I did not meet Captain Nemo: I supposed him to be in the pilot's cage. The next morning, March 19, I took my post once more in the saloon. The electric log told me that the speed of the Nautilus had been slackened. It was then going toward the surface; but prudently emptying its reservoirs very slowly. My heart beat fast. Were we going to emerge and regain the open polar atmosphere? No! A shock told me that the Nautilus had struck the bottom of the iceberg, still very thick, judging from the deadened sound. We had indeed "struck," to use a sea expression, but in an inverse sense, and at a thousand feet deep. This would give three thousand feet of ice above us; one thousand being above the watermark. The iceberg was then higher than at its borders- not a very reassuring fact.

Several times that day the Nautilus tried again, and every time it struck the wall which lay like a ceiling above it. Sometimes it met with but nine hundred yards, only two hundred of which rose above the surface. It was twice the height it was when the Nautilus had gone under the waves. I carefully noted the different depths, and thus obtained a submarine profile of the chain as it was developed under the water. That night no change had taken place in our situation. Still ice between four and five hundred yards in depth It was evidently diminishing, but still what a thickness between us and the surface of the ocean It was then eight. According to the daily custom on board the Nautilus, its air should have been renewed four hours ago; but I did not suffer much, although Captain Nemo had not yet made any demand upon his reserve of oxygen. My sleep was painful that night; hope and fear besieged me by turns: I rose several times. The groping of the Nautilus continued. About three in the morning, I noticed that the lower surface of the iceberg was only about fifty feet deep. One hundred fifty feet now separated us from the surface of the waters. The iceberg was by degrees becoming an ice field, the mountain a plain. My eyes never left the manometer. We were still rising diagonally to the surface, which sparkled under the electric rays. The iceberg was stretching both above and beneath into lengthening slopes; mile after mile it was getting thinner. At length, at six in the morning of that memorable day, March 19, the door of the saloon opened, and Captain Nemo appeared.

"The sea is open!" was all he said.

I RUSHED on the platform. Yes! the open sea, with but a few scattered pieces of ice and moving icebergs- a long stretch of sea; a world of birds in the air, and myriads of fishes under those waters, which varied from intense blue to olive green, according to the bottom. The thermometer marked three degrees centigrade above zero. It was comparatively spring, shut up as we were behind this iceberg, whose lengthened mass was dimly seen on our northern horizon.

"Are we at the Pole?" I asked the captain, with a beating heart.

"I do not know," he replied. "At noon I will take our bearings."

"But will the sun show himself through this fog?" said I,
looking at the leaden sky.

"However little it shows, it will be enough," replied the captain. About ten miles south, a solitary island rose to a height of one hundred four yards. We made for it, but carefully, for the sea might be strewn with banks. One hour afterward we had reached it, two hours later we had made the round of it. It measured four or five miles in circumference. A narrow canal separated it from a considerable stretch of land, perhaps a continent, for we could not see its limits. The existence of this land seemed to give some color to Maury's hypothesis. The ingenious American has remarked, that between the south pole and the sixtieth parallel, the sea is covered with floating ice of enormous size, which is never met with in the North Atlantic. From this fact he has drawn the conclusion that the antarctic circle incloses considerable continents, as icebergs cannot form in open sea, but only on the coasts. According to these calculations, the mass of ice surrounding the South Pole forms a vast cap, the circumference of which must be, at least, 2,500 miles. But the Nautilus, for fear of running aground, had stopped about three cables' length from a strand over which reared a superb heap of rocks. The boat was launched; the captain, two of his men bearing instruments, Conseil, and myself, were in it. It was ten in the morning. I had not seen Ned Land. Doubtless the Canadian did not wish to admit the presence of the south pole. A few strokes of the oar brought us to the sand, where we ran ashore. Conseil was going to jump on to the land, when I held him back.

"Sir," said I to Captain Nemo, "to you belongs the honor of first setting foot on this land."

"Yes, Sir," said the captain; "and if I do not hesitate to tread this South Pole, it is because, up to this time, no human being has left a trace there."

Saying this, he jumped lightly on to the sand. His heart beat with emotion. He climbed a rock, sloping to a little promontory, and there, with his arms crossed, mute and motionless, and with an eager look, he seemed to take possession of these southern regions. After five minutes passed in this ecstasy, he turned to us.

"When you like, Sir."

I landed, followed by Conseil, leaving the two men in the boat. For a long way the soil was composed of a reddish, sandy stone, something like crushed brick, scoriae, streams of lava, and pumice stones. One could not mistake its volcanic origin. In some parts, slight curls of smoke emitted a sulphurous smell, proving that the eternal fires had lost nothing of their expansive powers though, having climbed a high acclivity, I could see no volcano for a radius of several miles. We know that in those antarctic countries, James Ross found two craters. the Erebus and Terror, in full activity, on meridian 167, latitude 77 degrees 32'. The vegetation of this desolate continent seemed to me much restricted. Some lichens of the species

unsnea melanoxantha lay upon the black rocks; some microscopic plants, rudimentary diatomas, a kind of cells, placed between two quartz shells; long purple and scarlet fucus, supported on little swimming bladders, which the breaking of the waves brought to the shore. These constituted the meager flora of this region. The shore was strewn with mollusks, little mussels, limpets, smooth bucards in the shape of a heart, and particularly some clios, with oblong membranous bodies, the head of which was formed of two rounded lobes. I also saw myriads of northern clios, one and a quarter inches long, of which a whale would swallow a whole world at a mouthful; and some charming pteropods, perfect sea butterflies, animating the waters on the skirts of the shore.

Amongst other zoophytes, there appeared on the high bottoms some coral shrubs, of that kind which, according to James Ross live in the antarctic seas to the depth of more than 1,000 yards. Then there were little kingfishers, belonging to the species procellaria pelagica, as well as a large number of asteriads, peculiar to these climates, and starfish studding the soil. But where life abounded most was in the air. There thousands of birds fluttered and flew of all kinds, deafening us with their cries; others crowded the rocks, looking at us as we passed by without fear, and pressing familiarly close by our feet. There were penguins, so agile in the water, that they have been taken for the rapid bonitos, heavy and awkward as they are on the ground; they were uttering harsh cries, a large assembly, sober in gesture, but extravagant in clamor. Among the birds I noticed the chionis, of the long-legged family, as large as pigeons, white, with a short conical beak, and the eye framed in a red circle. Conseil laid in a stock of them, for these winged creatures, properly prepared, made an agreeable meat. Albatrosses passed in the air (the expanse of their wings being at least four yards and a half), and justly called the vultures of the ocean; some gigantic petrels, and some damiers, a kind of small duck, the under part of whose body is black and white; then there were a whole series of petrels, some whitish, with brown-bordered wings, others blue, peculiar to the antarctic seas, and so oily, as I told Conseil, that the inhabitants of the Faroe Islands had nothing to do before lighting them, but to put a wick in.

"A little more," said Conseil, "and they would be perfect lamps! After that, we cannot expect Nature to have previously furnished them with wicks!"

About half a mile, farther on, the soil. was riddled with ruffs' nests, a sort of laying ground, out of which many birds were issuing. Captain Nemo had some hundreds hunted. They uttered a cry like the braying of an ass, were about the size of a goose, slate color on the body, white beneath, with a yellow line round their throats; they allowed themselves to be killed with a stone, never trying to escape. But the fog did not lift, and at eleven the sun had not yet shown itself. Its absence made me uneasy. Without it no observations were possible. How then could we decide whether we had reached the pole? When I rejoined Captain Nemo, I found him leaning on a piece of rock, silently watching the sky. He seemed impatient and vexed. But what was to be done? This rash and powerful man could not command the sun as he did the sea. Noon arrived without the orb of day showing itself for an instant. We could not even tell its position behind the curtain of fog; and soon the fog turned to snow.

"Till tomorrow," said the Captain, quietly, and we returned to the Nautilus amid these atmospheric disturbances.

The tempest of snow continued till the next day. It was impossible to remain on the platform. From the saloon, where I was taking notes of incidents happening during this excursion to the polar continent, I

could hear the cries of petrels and albatrosses sporting in the midst of this violent storm. The Nautilus did not remain motionless, but skirted the coast, advancing ten miles more to the south in the half light left by the sun as it skirted the edge of the horizon. The next day, March 20, the snow had ceased. The cold was a little greater, the thermometer showing two degrees below zero. The fog was rising, and I hoped that that day our observations might be taken. Captain Nemo not having yet appeared, the boat took Conseil and myself to land. The soil was still of the same volcanic nature; everywhere were traces of lava, scoriae, and basalt; but the crater which had vomited them I could not see. Here, as lower down, this continent was alive with myriads of birds. But their rule was now divided with large troops of sea mammals, looking at us with their soft eyes. There were several kinds of seals, some stretched on the earth, some on flakes of ice, many going in and out of the sea. They did not flee at our approach, never having had anything to do with man; and I reckoned that there were provisions there for hundreds of vessels.

"Sir," said Conseil, "will you tell me the names of these creatures?"

"They are seals and morses."

It was now eight in the morning. Four hours remained to us before the sun could be observed with advantage. I directed our steps toward a vast bay cut in the steep granite shore. There, I can aver that earth and ice were lost to sight by the numbers of sea mammals covering them, and I involuntarily sought for old Proteus, the mythological shepherd who watched these immense flocks of Neptune. There were more seals than anything else, forming distinct groups, male and female, the father watching over his family, the mother suckling her little ones, some already strong enough to go a few steps. When they wished to change their place, they took little jumps, made by the contraction of their bodies, and helped awkwardly enough by their imperfect fin, which, as with the lamantin, their congener, forms a perfect forearm. I should say that, in the water, which is their element- the spine of these creatures is flexible- with smooth and close skin and webbed feet, they swim admirably. In resting on the earth they take the most graceful attitudes. Thus the ancients, observing their soft and expressive looks, which cannot be surpassed by the most beautiful look a woman can give, their clear voluptuous eyes, their charming positions, and the poetry of their manners, metamorphosed them, the male into a triton and the female into a

I made Conseil notice the considerable development of the lobes of the brain in these interesting cetaceans. No mammal, except man, has such a quantity of cerebral matter; they are also capable of receiving a certain amount of education, are easily domesticated, and I think, with other naturalists, that, if properly taught, they would be of great service as fishing dogs. The greater part of them slept on the rocks or on the sand. Among these seals, properly so called, which have no external ears (in which they differ from the otter, whose ears are prominent), I noticed several varieties of stenorhynchi about three yards long, with a white coat, bulldog heads, armed with teeth in both jaws, four incisors at the top and four at the bottom, and two large canine teeth in the shape of a "fleur de lis." Among them glided sea elephants, a kind of seal, with short flexible trunks. The giants of this species measured twenty feet round, and ten yards and a half in length; but they did not move as we approached.

"These creatures are not dangerous?" asked Conseil.

"No; not unless you attack them. When they have to defend their young, their rage is terrible, and it is not uncommon for them to break the fishing boats to pieces."

"They are quite right," said Conseil.

"I do not say they are not."

Two miles farther on we were stopped by the promontory. which shelters the bay from the southerly winds. Beyond it we heard loud bellowings such as a troop of ruminants would produce.

"Good!" said Conseil; "a concert of bulls!"

"No; a concert of morses."

"They are fighting!"

"They are either fighting or playing."

We now began to climb the blackish rocks, amid unforeseen stumbles, and over stones which the ice made slippery. More than once I rolled over at the expense of my loins. Conseil, more prudent or more steady, did not stumble, and helped me up, saying:

"If, Sir, you would have the kindness to take wider steps, you would preserve your equilibrium better."

Arrived at the upper ridge of the promontory, I saw a vast white plain covered with morses. They were playing among themselves, and what we heard were bellowings of pleasure, not of anger.

As I passed near these curious animals, I could examine them leisurely, for they did not move. Their skins were thick and rugged, of a yellowish tint, approaching to red, their hair was short and scant. Some of them were four yards and a quarter long. Quieter, and less timid than their congeners of the north, they did not, like them, place sentinels round the outskirts of their encampment. After examining this city of morses, I began to think of returning. It was eleven o'clock, and if Captain Nemo found the conditions favorable for observations, I wished to be present at the operation.

We followed a narrow pathway running along the summit of the steep shore. At half after eleven we had reached the place where we landed. The boat had run aground bringing the captain. I saw him standing on a block of basalt, his instruments near him, his eyes fixed on the northern horizon, near which the was then describing a lengthened curve. I took my place beside him, and waited without speaking. Noon arrived, and, as before, the sun did not appear. It was a fatality. Observations were still wanting. If not accomplished tomorrow, we must give up all idea of taking any. We were indeed exactly at the twentieth of March. Tomorrow, the twenty-first, would be the equinox; the sun would disappear behind the horizon for six months, and with its disappearance the long polar night would begin. Since the September equinox it had emerged from the northern horizon, rising by lengthened spirals up to December 21. At this period, the summer solstice of the southern regions, it had begun to descend and tomorrow was to shed its last rays upon them. I communicated my fears and observations to Captain Nemo.

"You are right, M. Aronnax," said he; "if tomorrow I cannot take the altitude of the sun, I shall not be able to do it for six months. But precisely because chance has led me into these seas on March 21, my bearings will be easy to take, if at twelve we can see the sun."

"Why, Captain?"

"Because then the orb of day describes such lengthened curves, that it is difficult to measure exactly its height above the horizon, and grave errors may be made with instruments."

"What will you do then?"

"I shall only use my chronometer," replied Captain Nemo. "If tomorrow, March 21, the disk of the sun, allowing for refraction, is exactly cut by the northern horizon, it will show that I am at the South Pole."

"Just so," said I. "But this statement is not mathematically correct, because the equinox does not necessarily begin at noon."

"Very likely, Sir; but the error will not be a hundred yards, and we do not want more. Till tomorrow then!"

Captain Nemo returned on board. Conseil and I remained to survey the shore, observing and studying until five o'clock. Then I went to bed, not, however, without invoking, like the Indian, the favor of the radiant orb. The next day, March 21, at five in the morning, I mounted the platform. I found Captain Nemo there.

"The weather is lightening a little," said he. "I have some hope. After breakfast we will go on shore, and choose a post for observation."

That point settled, I sought Ned Land. I wanted to take him with me. But the obstinate Canadian refused, and I saw that his taciturnity and his bad humor grew day by day. After all I was. not sorry for his obstinacy under the circumstances. Indeed, there were too many seals on shore, and we ought not to lay such temptation in this unreflecting fisherman's way. Breakfast over, we went on shore. The Nautilus had gone some miles farther up in the night. It was a whole league from the coast, above which reared a sharp peak about five hundred yards high. The boat took with me Captain Nemo, two men of the crew, and the instruments, which consisted of a chronometer a telescope, and a barometer.

While crossing, I saw numerous whales belonging to the three kinds peculiar to the southern seas; the whale, or the English "right whale," which has no dorsal fin; the "humpback," or balaenopteron, with reeved chest, and large whitish fins, which, in spite of its name, do not form wings; and the finback, of a yellowish brown, the liveliest of all the cetacea. This powerful creature is heard a long way off when he throws to a great height columns of air and vapor, which look like whirlwinds of smoke. These different mammals were disporting themselves in troops in the quiet waters; and I could see that this basin of the Antarctic Pole served as a place of refuge to the cetacea too closely tracked by the hunters. the hunters. I also noticed long whitish lines of salpae, a kind of gregarious mollusk, and large medusae floating between the reeds.

At nine we landed; the sky was brightening, the clouds were flying to the south, and the fog seemed to be leaving the cold surface of the waters. Captain Nemo went toward the peak, which he doubtless meant to be his observatory. It was a painful ascent over the sharp lava and the pumice stones, in an atmosphere often impregnated with a sulphurous smell from the smoking cracks. For a man unaccustomed to walk on land, the captain climbed the steep slopes with an agility I never saw equaled, and which a hunter would have envied.

We were two hours getting to the summit of this peak, which was half porphyry and half basalt. From thence we looked upon a vast sea, which, toward the north, distinctly traced its boundary line upon the sky. At our feet lay fields of dazzling whiteness. Over our heads a pale azure, free from fog. To the north the disk of the sun seemed like a ball of fire, already horned by the cutting of the horizon. From the bosom of the water rose sheaves of liquid jets by hundreds. In the distance lay the Nautilus like a cetacean asleep on the water. Behind us, to the south and east, an immense country, and a chaotic heap of rocks and ice, the limits of which were not visible.

On arriving at the summit, Captain Nemo carefully took the mean height of the barometer, for he would have to consider that in taking his observations. At a quarter to twelve, the sun, then seen only by refraction, looked like a golden disk shedding its last rays upon this deserted continent, and seas which never man had yet plowed. Captain Nemo, furnished with a lenticular glass, which, by means of a mirror, collected the refraction, watched the orb sinking below the horizon by degrees, following a lengthened diagonal. I held the

chronometer. My heart beat fast. If the disappearance of the half disk of the sun coincided with twelve o'clock on the chronometer, we were at the pole itself.

"Twelve!" I exclaimed.

"The South Pole!" replied Captain Nemo, in a grave voice, handing me the glass, which showed the orb cut in equal parts by the horizon.

- I looked at the last rays crowning the peak, and the shadows mounting by degrees up its slopes. At that moment Captain Nemo, resting with his hand on my shoulder, said:
- "I, Captain Nemo, on this twenty-first day of March, 1868, have reached the South Pole on the ninetieth degree; and I take possession of this part of the globe, equal to one sixth of the known continents."
  - "In whose name, Captain?"
  - "In my own, Sir!"

Saying which, Captain Nemo unfurled a black banner, bearing an N in gold quartered on its bunting. Then turning toward the orb of day, whose last rays lapped the horizon of the sea, he exclaimed:

"Adieu, sun! Disappear, thou radiant orb! rest beneath this open sea, and let a night of six months spread its shadow over my new domains!"

#### CHAPTER XV.

## ACCIDENT OR INCIDENT.

THE next day, March 22, at six in the morning, preparations for departure were begun. The last gleams of twilight were melting into night. The cold was great; the constellations shone with wonderful intensity. In the zenith glittered that wondrous Southern Cross- the polar bear of antarctic regions. The thermometer showed twelve degrees below zero, and, when the wind freshened, it was most biting. Flakes of ice increased on the open water. The sea seemed everywhere alike. Numerous blackish patches spread on the surface, showing the formation of fresh ice.

Evidently the southern basin, frozen during the six winter months, was absolutely inaccessible. What became of the whales in that time? Doubtless they went beneath the icebergs, seeking more practicable seas. As to the seals and morses, accustomed to live, in a hard climate, they remained on these icy shores. These creatures have the instinct to break holes in the ice fields, and to keep them open. To these holes they come for breath; when the birds, driven away by the cold, have emigrated to the north, these sea mammals remain sole masters of the polar continent. But the reservoirs were filling with water, and the Nautilus was slowly descending. At 1,000 feet deep it stopped; its screw beat the waves, and it advanced straight toward the north, at a speed of fifteen miles an hour. Toward night it was already floating under the immense body of the iceberg.

At three in the morning I was awakened by a violent shock. I sat up in my bed and listened in the darkness, when I was thrown into the middle of the room. The Nautilus, after having struck, had rebounded violently. I groped along the partition, and by the staircase to the saloon, which was lit by the luminous ceiling. The furniture was upset. Fortunately the windows were firmly set, and had held fast. The pictures on the starboard side, from being no longer vertical, were clinging to the paper, whilst those of the port side were hanging at least a foot from the wall. The Nautilus was lying on its starboard side perfectly motionless. I heard footsteps, and a confusion of voices; but Captain Nemo did not appear. As I was leaving the saloon, Ned Land and Conseil entered.

- "What is the matter?" said I, at once.
- "I came to ask you, Sir, " replied Conseil.
- "Confound it!" exclaimed the Canadian, "I know well enough the Nautilus has struck; and judging by the way she lies, I do not think she will right herself as she did the first time in Torres Straits."
  - "But," I asked, "has she at least come to the surface of the sea?"
    "We do not know," said Conseil.
- "It is easy to decide," I answered. I consulted the manometer. To my great surprise it showed a depth of more than 180 fathoms. "What does that mean?" I exclaimed.
  - "We must ask Captain Nemo," said Conseil.
  - "But where shall we find him?" said Ned Land.
  - "Follow me," said I to my companions.

We left the saloon. There was no one in the library. At the center staircase, by the berths of the ship's crew, there was no one. I thought that Captain Nemo must be in the pilot's cage. It was best to wait. We all returned to the saloon. For twenty minutes we remained thus, trying to hear the slightest noise which might be made on board the Nautilus, when Captain Nemo entered. He seemed not to see us; his face, generally so impassive, showed signs of uneasiness. He watched the compass silently, then the manometer; and going to the planisphere, placed his finger on a spot representing the southern seas. I would not interrupt him; but, some minutes later, when he turned toward me, I said, using one of his own expressions in the Torres Straits:

- "An incident, Captain?"
- "No, Sir; an accident this time."
- "Serious?"
- "Perhaps."
- "Is the danger immediate?"
- "No."
- "The Nautilus has stranded?"
- "Yes."
- "And this has happened- how?"
- "From a caprice of nature, not from the ignorance of man. Not a mistake has been made in the working. But we cannot prevent equilibrium from producing its effects. We may brave human laws, but we cannot resist natural ones."

Captain Nemo had chosen a strange moment for uttering this philosophical reflection. On the whole, his answer helped me little.

"May I ask the cause of this accident?"

"An enormous block of ice, a whole mountain, has turned over." he replied. "When icebergs are undermined at their base by warmer water or reiterated shocks, their center of gravity rises, and the whole thing turns over. This is what has happened; one of these blocks, as it fell, struck the Nautilus, then gliding under its hull, raised it with irresistible force, bringing it into beds which are not so thick, where it is lying on its side."

"But can we not get the Nautilus off by emptying its reservoirs, that it may regain its equilibrium?"

"That, Sir, is being done at this moment. You can hear the pump working. Look at the needle of the manometer; it shows that the Nautilus is rising, but the block of ice is rising with it; and, until some obstacle stops its ascending motion, our position cannot be altered."

Indeed, the Nautilus still held the same position to starboard; doubtless it would right itself when the block stopped. But at this moment who knows if we may not strike the upper part of the iceberg, and if we may not be frightfully crushed between the two glassy surfaces? I reflected on all the consequences of our position. Captain

Nemo never took his eyes off the manometer. Since the fall of the iceberg, the Nautilus had risen about a hundred fifty feet, but it still made the same angle with the perpendicular. Suddenly a slight movement was felt in the hold. Evidently it was righting a little. Things in the saloon were sensibly returning to their normal position. The partitions were nearing the upright. No one spoke. With beating hearts we watched and felt the straightening. The boards became horizontal under our feet. Ten minutes passed.

"At last we have righted!" I exclaimed.

"Yes," said Captain Nemo, going to the door of the saloon.

"But are we floating?" I asked.

"Certainly," he replied; "since the reservoirs are not empty; and, when empty, the Nautilus must rise to the surface of the sea."

We were in open sea; but at a distance of about ten yards, on either side of the Nautilus, rose a dazzling wall of ice. Above and beneath, the same wall. Above, because the lower surface of the iceberg stretched over us like an immense ceiling. Beneath, because the overturned block, having slid by degrees had found a resting place on the lateral walls, which kept it in that position. The Nautilus was really imprisoned in a perfect tunnel of ice more than twenty yards in breadth, filled with quiet water. It was easy to get out of it by going either forward or backward, and then make a free passage under the iceberg, some hundreds of yards deeper. The luminous ceiling had been extinguished, but the saloon was still resplendent with intense light. It was the powerful reflection from the glass partition sent violently back to the sheets of the lantern. I cannot describe the effect of the voltaic rays upon the great blocks so capriciously cut; upon every angle, every ridge, every facet was thrown a different light, according to the nature of the veins running through the ice; a dazzling mine of gems, particularly of sapphires, their blue rays crossing with the green of the emerald. Here and there were opal shades of wonderful softness, running through bright spots like diamonds of fire, the brilliancy of which the eye could not bear. The power of the lantern seemed increased a hundredfold, like a lamp through the lenticular plates of a first-class lighthouse.

"How beautiful! how beautiful!" cried Conseil.

"Yes," I said, "it is a wonderful sight. Is it not, Ned?"

"Yes, confound it! Yes," answered Ned Land, "it is superb! I am mad at being obliged to admit it. No one has ever seen anything like it; but the sight may cost us dear. And if I must say all, I think we are seeing here things which God never intended man to see."

Ned was right, it was too beautiful. Suddenly a cry from Conseil made me turn.

"What is it?" I asked.

"Shut your eyes, Sir! do not look!" Saying which, Conseil clapped his hands over his eyes.

"But what is the matter, my boy?"

"I am dazzled, blinded."

My eyes turned involuntarily toward the glass, but I could not stand the fire which seemed to devour them. I understood what had happened. The Nautilus had put on full speed. All the quiet luster of the ice walls was at once changed into flashes of lightning. The fire from these myriads of diamonds was blinding. It required some time to calm our troubled looks. At last the hands were taken down.

"Faith, I should never have believed it," said Conseil.

It was then five in the morning; and at that moment a shock was felt at the bows of the Nautilus. I knew that its spur had struck a block of ice. It must have been a false maneuver, for this submarine tunnel, obstructed by blocks, was not very easy navigation. I thought that Captain Nemo, by changing his course, would either turn

these obstacles, or else follow the windings of the tunnel. In any case, the road before us could not be entirely blocked. But, contrary to my expectations, the Nautilus took a decided retrograde motion.

"We are going backward?" said Conseil.

"Yes," I replied. "This end of the tunnel can have no egress." "And then?"

"Then," said I, "the working is easy. We must go back again, and go out at the southern opening. That is all."

In speaking thus, I wished to appear more confident than I really was. But the retrograde motion of the Nautilus was increasing; and, reversing the screw, it carried us at great speed.

"It be a hindrance," said Ned.

"What does it matter, some hours more or less, provided we get out at last?"

"Yes," repeated Ned Land, "provided we do get out at last!"
For a short time I walked from the saloon to the library. My
companions were silent. I soon threw myself on an ottoman, and took
a book, which my eyes overran mechanically. A quarter of an hour
after, Conseil, approaching me, said, "Is what you are reading very
interesting, Sir?"

"Very interesting!" I replied.

"I should think so, Sir. It is your own book you are reading."
"My book?"

And indeed I was holding in my hand the work on the "Great Submarine Depths." I did not even dream of it. I closed the book, and returned to my walk. Ned and Conseil rose to go.

"Stay here, my friends," said I, detaining them. "Let us remain together until we are out of this block."

"As you please," Conseil replied.

Some hours passed. I often looked at the instruments hanging from the partition. The manometer showed that the Nautilus kept at a constant depth of more than three hundred yards; the compass still pointed to the south; the log indicated a speed of twenty miles an hour, which, in such a cramped space, was very great. But Captain Nemo knew that he could not hasten too much, and that minutes were worth ages to us. At twenty-five minutes past eight a second shock took this time from behind. I turned pale. My companions were close by my side. I seized Conseil's hand. Our looks expressed our feelings better than words. At this moment the captain entered the saloon. I went up to him

"Our course is barred southward?" I asked.

"Yes, Sir. The iceberg has shifted, and closed every outlet."

"We are blocked up, then?"

"Yes."

CHAPTER XVI.

## WANT OF AIR.

THUS, around the Nautilus, above and below, was an impenetrable wall of ice. We were prisoners to the iceberg. I watched the captain. His countenance had resumed its habitual imperturbability.

"Gentlemen," he said, calmly, "there are two ways of dying in the circumstances in which we are placed." (This inexplicable person had the air of a mathematical professor lecturing to his pupils.) "The first is to be crushed; the second is to die of suffocation. I do not speak of the possibility of dying of hunger, for the supply of provisions in the Nautilus will certainly last longer than we shall. Let us then calculate our chances."

"As to suffocation, Captain," I replied, "that is not to be

feared, because our reservoirs are full."

"Just so; but they will only yield two days' supply of air. Now, for thirty-six hours we have been hidden under the water, and already the heavy atmosphere of the Nautilus requires renewal. In forty-eight hours our reserve will be exhausted."

"Well, Captain, can we be delivered before forty-eight hours?"

"We will attempt it, at least, by piercing the wall that surrounds us."

"On which side?"

"Sound will tell us. I am going to run the Nautilus aground on the lower bank, and my men will attack the iceberg on the side that is least thick."

Captain Nemo went out. Soon I discovered by a hissing noise that the water was entering the reservoirs. The Nautilus sank slowly, and rested on the ice at a depth of 350 yards, the depth at which the lower bank was immersed.

"My friends," I said, "our situation is serious, but I rely on your courage and energy."

"Sir," replied the Canadian, "I am ready to do anything for the general safety."

"Good! Ned," and I held out my hand to the Canadian.

"I will add," he continued, "that being as handy with the pickax as with the harpoon, if I can be useful to the captain, he can command my services."

"He will not refuse your help. Come, Ned!"

I led him to the room where the crew of the Nautilus were putting on their cork jackets. I told the captain of Ned's proposal, which he accepted. The Canadian put on his sea costume, and was ready as soon as his companions. When Ned was dressed, I reentered the drawing-room, where the panes of glass were open, and, posted near Conseil, I examined the ambient beds that supported the Nautilus. Some instants after, we saw a dozen of the crew set foot on the bank of ice, and among them Ned Land, easily known by his stature. Captain Nemo was with them. Before proceeding to dig the walls, he took the soundings, to be sure of working in the right direction. Long sounding lines were sunk in the side walls, but after fifteen yards they were again stopped by the thick wall. It was useless to attack it on the ceiling-like surface, since the iceberg itself measured more than four hundred yards in height. Captain Nemo then sounded the lower surface. There ten yards of wall separated us from the water, so great was the thickness of the ice field. It was necessary, therefore to cut from it a piece equal in extent to the water line of the Nautilus. There were about six thousand cubic yards to detach, so as to dig a hole by which we could descend to the ice field.

The work was begun immediately, and carried on with indefatigable energy. Instead of digging round the Nautilus, which would have involved greater difficulty, Captain Nemo had an immense trench made at eight yards from the port quarter. Then the men set to work simultaneously with their screws, on several points of its circumference. Presently the pickax attacked this compact matter vigorously, and large blocks were detached from the mass. By a curious effect of specific gravity, these blocks, lighter than water, fled, so to speak, to the vault of the tunnel, that increased in thickness at the top in proportion as it diminished at the base. But that mattered little, so long as the lower part grew thinner. After two hours' hard work, Ned Land came in exhausted. He and his comrades were replaced by new workers, whom Conseil and I joined. The second lieutenant of the Nautilus superintended us. The water seemed singularly cold, but I soon got warm handling the pickax. My movements were free enough, although they were made under a pressure of thirty

atmospheres.

When I reentered after working two hours, to take some food and rest, I found a perceptible difference between the pure fluid with which the Rouquayrol engine supplied me, and the atmosphere of the Nautilus, already charged with carbonic acid. The air had not been renewed for forty-eight hours, and its vivifying qualities were considerably enfeebled. However, after a lapse of twelve hours, we had only raised a block of ice one yard thick, on the marked surface, which was about six hundred cubic yards! Reckoning that it took twelve hours to accomplish this much, it would take five nights and four days to bring this enterprise to a satisfactory conclusion. Five nights and four days! and we have only air enough for two days in the reservoirs!

"Without taking into account," said Ned, "that, even if we get out of this infernal prison, we shall also be imprisoned under the iceberg, shut out from all possible communication with the atmosphere." True enough! Who could then foresee the minimum of time necessary for our deliverance? We might be suffocated before the Nautilus could regain the surface of the waves? Was it destined to perish in this ice tomb, with all those inclosed? The situation was terrible. But everyone had looked the danger in the face, and each was determined to do his duty to the last.

As I expected, during the night a new block a yard square was carried away, and still farther sank the immense hollow. But in the morning when, dressed in my cork jacket, I traversed the slushy mass at a temperature of six or seven degrees below zero, I remarked that the side walls were gradually closing in. The beds of water farthest from the trench, that were not warmed by the men's mere work, showed a tendency to solidification. In presence of this new and imminent danger, what would become of our chances of safety, and how hinder the solidification of this liquid medium, that would burst the partitions of the Nautilus like glass?

I did not tell my companions of this new danger. What was the good of damping the energy they displayed in the painful work of escape? But when I went on board again, I told Captain Nemo of this grave complication.

"I know it," he said, in that calm tone which could counteract the most terrible apprehensions. "It is one danger more; but I see no way of escaping it; the only chance of safety is to go quicker than solidification. We must be beforehand with it, that is all."

On this day for several hours I used my pickax vigorously. The work kept me up. Besides, to work was to quit the Nautilus, and breathe directly the pure air drawn from the reservoirs, and supplied by our apparatus, and to quit the impoverished and vitiated atmosphere. Toward evening the trench was dug one yard deeper. When I returned on board, I was nearly suffocated by the carbonic acid with which the air was filled- ah! if we had only the chemical means to drive away this deleterious gas. We had plenty of oxygen; all this water contained a considerable quantity, and by dissolving it with our powerful piles, it would restore the vivifying fluid. I had thought well over it; but of what good was that, since the carbonic acid produced by our respiration had invaded every part of the vessel? To absorb it, it was necessary to fill some jars with caustic potash, and to shake them incessantly. Now this substance was wanting on board, and nothing could replace it. On that evening, Captain Nemo ought to open the taps of his reservoirs, and let some pure air into the interior of the Nautilus; without this precaution, we could not get rid of the sense of suffocation.

The next day, March 26, I resumed my miner's work in beginning the fifth yard. The side walls and the lower surface of the iceberg thickened visibly. It was evident that they would meet before the

Nautilus was able to disengage itself. Despair seized me for an instant, my pickax nearly fell from my hands. What was the good of digging if I must be suffocated, crushed by the water that was turning into stone?— a punishment that the ferocity of the savages even would not have invented! Just then Captain Nemo passed near me. I touched his hand and showed him the walls of our prison. The wall to port had advanced to at least four yards from the hull of the Nautilus. The captain understood me, and signed to me to follow him. We went on board. I took off my cork jacket, and accompanied him into the drawing-room.

"M. Aronnax, we must attempt some desperate means, or we shall be sealed up in this solidified water as in cement."

"Yes; but what is to be done?"

"Ah! if my Nautilus were strong enough to bear this pressure without being crushed!"

"Well?" I asked, not catching the captain's idea.

"Do you not understand," he replied, "that this congelation of water will help us? Do you not see that, by its solidification, it would burst through this field of ice that imprisons us, as, when it freezes, it bursts the hardest stones? Do you not perceive that it would be an agent of safety instead of destruction?"

"Yes, Captain, perhaps. But whatever resistance to crushing the Nautilus possesses, it could not support this terrible pressure, and would be flattened like an iron plate."

"I know it, Sir. Therefore we must not reckon on the aid of nature, but on our own exertions. We must stop this solidification. Not only will the side walls be pressed together; but there is not ten feet of water before or behind the Nautilus. The congelation gains on us on all sides."

The captain looked in my face. "After tomorrow they will be empty!"

A cold sweat came over me. However, ought I to have been astonished at the answer? On March 22, the Nautilus. was in the open polar seas. We were at 26 degrees. For five days we had lived on the reserve on board. And what was left of the respirable air must be kept for the workers. Even now, as I write, my recollection is still so vivid, that an involuntary terror seizes me, and my lungs seem to be without air. Meanwhile, Captain Nemo reflected silently, and evidently an idea had struck him; but he seemed to reject it. At last, these words escaped his lips:

"Boiling water!" he muttered.

"Boiling water?" I cried.

"Yes, Sir. We are inclosed in a space that is relatively confined. Would not jets of boiling water, constantly injected by the pumps, raise the temperature in this part, and stay the congelation?"

"Let us try it," I said, resolutely.

"Let us try, Professor."

The thermometer then stood at seven degrees outside. Captain Nemo took me to the galleys, where the vast distillatory machines stood that furnished the drinkable water by evaporation. They filled these with water, and all the electric heat from the piles was thrown through the worms bathed in the liquid. In a few minutes this water reached a hundred degrees. It was directed toward the pumps, while fresh water replaced it in proportion. The heat developed by the troughs was such that cold water, drawn up from the sea, after only having gone through the machines, came boiling into the body of the pump. The injection was begun, and three hours after the thermometer marked six degrees below zero outside. One degree was gained. Two

hours later, the thermometer only marked four degrees.

"We shall succeed," I said to the captain, after having anxiously watched the result of the operation.

"I think," he answered, "that we shall not be crushed. We have no more suffocation to fear."

During the night the temperature of the water rose to one degree below zero. The injections could not carry it to a higher point. But as the congelation of the sea water produces, at least two degrees, I was at last reassured against the dangers of solidification.

The next day, March 27, six yards of ice had been cleared, four yards only remaining to be cleared away. There was yet forty-eight hours work. The air could not be renewed in the interior of the Nautilus. And this day would make it worse. An intolerable weight oppressed me. Toward three o'clock in the evening, this feeling rose to a violent degree. Yawns dislocated my jaws. My lungs panted as they inhaled this burning fluid, which became rarefied more and more. A moral torpor took hold of me. I was powerless, almost unconscious. My brave Conseil, though exhibiting the same symptoms and suffering in the same manner, never left me. He took my hand and encouraged me, and I heard him murmur, "Oh! if I could only not breathe, so as to leave more air for my master!"

Tears came into my eyes on hearing him speak thus. If our situation to all was intolerable in the interior, with what haste and gladness would we put on our cork jackets to work in our turn! Pickaxes sounded on the frozen ice beds. Our arms ached, the skin was torn off our hands. But what were these fatigues, what did the wounds matter? Vital air came to the lungs! we breathed! we breathed!

All this time, no one prolonged his voluntary task beyond the prescribed time. His task accomplished, each one handed in turn to his panting companions the apparatus that supplied him with life. Captain Nemo set the example, and submitted first to this severe discipline. When the time came, he gave up his apparatus to another, and returned to the vitiated air on board, calm, unflinching, unmurmuring.

On that day the ordinary work was accomplished with unusual vigor. Only two yards remained to be raised from the surface. Two yards only separated us from the open sea. But the reservoirs were nearly emptied of air. The little that remained ought to be kept for the workers; not a particle for the Nautilus. When I went back on board, I was half suffocated. What a night! I know not how to describe it. The next day my breathing was oppressed. Dizziness accompanied the pain in my head, and made me like a drunken man. My companions showed the same symptoms. Some of the crew had rattling in the throat.

On that day, the sixth of our imprisonment, Captain Nemo, finding the pickaxes work too slowly, resolved to crush the ice bed that still separated us from the liquid sheet. This man's coolness and energy never forsook him. He subdued his physical pains by moral force.

By his orders the vessel was lightened, that is to say, raised from the ice bed by a change of specific gravity. When it floated they towed it as to bring it above the immense trench made on the level of the water line. Then, filling his reservoirs with water, he descended and shut himself up in the hole.

Just then all the crew came on board, and the double door of communication was shut. The Nautilus then rested on the bed of ice, which was not one yard thick, and which the sounding leads had perforated in a thousand places. The taps of the reservoirs were then opened, and a hundred cubic yards of water was let in, increasing the weight of the Nautilus to 1,800 tons. We waited, we listened, forgetting our sufferings in hope. Our safety depended on this last

chance. Notwithstanding the buzzing in my head, I soon heard the humming sound under the hull of the Nautilus. The ice cracked with a singular noise, like tearing paper, and the Nautilus sank.

"We are off!" murmured Conseil in my ear.

I could not answer him. I seized his hand, and pressed it convulsively. All at once, carried away by its frightful overcharge, the Nautilus sank like a bullet under the waters; that is to say, it fell as if it was in a vacuum. Then all the electric force was put on the pumps, that soon began to let the water out of the reservoirs. After some minutes, our fall was stopped. Soon, too, the manometer indicated an ascending movement. The screw, going at full speed, made the iron hull tremble to its very bolts, and drew us toward the north. But if this floating under the iceberg is to last another day before we reach the open sea, I shall be dead first.

Half stretched upon a divan in the library, I was suffocating. My face was purple, my lips blue, my faculties suspended. I neither saw nor heard. All notion of time had gone from my mind. My muscles could not contract. I do not know how many hours passed thus, but I was conscious of the agony that was coming over me. I felt as if I was going to die. Suddenly I came to. Some breaths of air penetrated my lungs. Had we risen to the surface of the waves? Were we free of the iceberg? No. Ned and Conseil, my two brave friends, were sacrificing themselves to save me. Some particles of air still remained at the bottom of one apparatus. Instead of using it, they had kept it for me, and while they were being suffocated, they gave me life drop by drop. I wanted to push back the thing; they held my hands, and for some moments I breathed freely.

I looked at the clock; it was eleven in the morning. It ought to be March 28. The Nautilus went at a frightful pace, forty miles an hour. It literally tore through the water. Where was Captain Nemo? Had he succumbed? Were his companions dead with him? At the moment, the manometer indicated that we were not more than twenty feet from the surface. A mere plate of ice separated us from the atmosphere, could we not break it? Perhaps. In any case the Nautilus was going to attempt it. I felt that it was in an oblique position, lowering the stern, and raising the bows. The introduction of water had been the means of disturbing its equilibrium. Then, impelled by its powerful screw, it attacked the ice field from beneath like a formidable battering-ram. It broke it by backing and then rushing forward against the field, which gradually gave way; and, at last, dashing suddenly against it, shot forward on the icy field, that crushed beneath its weight. The panel was opened- one might say torn off- and the pure air came in in abundance to all parts of the Nautilus.

CHAPTER XVII.

# FROM CAPE HORN TO THE AMAZON.

HOW I got on to the platform, I have no idea; perhaps the Canadian had carried me there. But I breathed, I inhaled the vivifying sea air. My two companions were getting drunk with the fresh particles. The other unhappy men had been so long without food, that they could not with impunity indulge in the simplest aliments that were given them. We, on the contrary, had no need to restrain ourselves; we could draw this air freely into our lungs, and it was the breeze, the breeze alone, that filled us with this keen enjoyment.

"Ah!" said Conseil, "how delightful this oxygen is! Master need not fear to breathe it. There is enough for everybody."

Ned Land did not speak, but he opened his jaws wide enough to frighten a shark. Our strength soon returned, and when I looked round me, I saw we were alone on the platform. The foreign seamen in

the Nautilus were contented with the air that circulated in the interior; none of them had come to in the open air.

The first words I spoke were words of gratitude and thankfulness to my two companions. Ned and Conseil had prolonged my life during the last hours of this long agony. All my gratitude could not repay such devotion

"My friends," said I, "we are bound one to the other for ever, and I am under infinite obligations to you."

"Which I shall take advantage of," exclaimed the Canadian.

"What do you mean?" said Conseil.

"I mean that I shall take you with me when I leave this infernal Nautilus."

"Well," said Conseil, "after all this, are we going right?"

"Yes," I replied, "for we are going the way of the sun, and here the sun is in the north."

"No doubt," said Ned Land; "but it remains to be seen whether he will bring the ship into the Pacific or the Atlantic Ocean, that is, into frequented or deserted seas."

I could not answer that question, and I feared that Captain Nemo would rather take us to the vast ocean that touches the coasts of Asia and America at the same time. He would thus complete the tour round the submarine world, and return to those waters in which the Nautilus could sail freely. We ought, before long, to settle this important point. The Nautilus went at a rapid pace. The polar circle was soon passed, and the course shaped for Cape Horn. We were off the American point, March 31, at seven o'clock in the evening. Then all our past sufferings were forgotten. The remembrance of that imprisonment in the ice was effaced from our minds. We only thought of the future. Captain Nemo did not appear again either in the drawing-room or on the platform. The point shown each day on the planisphere, and marked by the lieutenant, showed me the exact direction of the Nautilus.

Now, on that evening, it was evident, to my great satisfaction, that we were going back to the north by the Atlantic. The next day, April 1, when the Nautilus ascended to the surface, some minutes before noon, we sighted land to the west. It was Terra del Fuego, which the first navigators named thus from seeing the quantity of smoke that rose from the natives' huts. The coast seemed low to me, but in the distance rose high mountains. I even though I had a glimpse of Mount Sarmiento, that rises 2,070 yards above the level of the sea, with a very pointed summit, which, according as it is misty or clear, is a sign of fine or of wet weather. At this moment, the peak was clearly defined against the sky. The Nautilus, diving again under the water, approached the coast, which was only some few miles off. From the glass windows in the drawing-room, I saw long seaweeds, and gigantic fuci, and varech, of which the open polar sea contains so many specimens, with their sharp polished filaments; they measured about 300 yards in length-real cables, thicker than one's thumb; and having great tenacity, they are often used as ropes

Another weed known as velp, with leaves four feet long, buried in the coral concretions, hung at the bottom. It served as nest and food for myriads of crustacea and mollusks, crabs and cuttlefish. There seals and otters had splendid repasts, eating the flesh of fish with sea vegetables, according to the English fashion. Over this fertile and luxuriant ground the Nautilus passed with great rapidity. Toward evening, it approached the Falkland group, the rough summits of which I recognized the following day. The depth of the sea was moderate. On the shores, our nets brought in beautiful specimens of seaweed, and particularly a certain fucus, the roots of

which were filled with the best mussels in the world. Geese and ducks fell by dozens on the platform, and soon took their places in the pantry on board. With regard to fish, I observed especially specimens of the goby species, some two feet long, all over white and yellow spots. I admired also numerous medusae, and the finest of the sort, the crysaora, peculiar to the sea about the Falkland Isles. I should have liked to preserve some specimens of these delicate zoophytes: but they are only like clouds, shadows, apparitions, that sink and evaporate, when out of their native element.

When the last heights of the Falklands had disappeared from the horizon, the Nautilus sank to between twenty and twenty-five yards, and followed the American coast. Captain Nemo did not show himself. Until April 3, we did not quit the shores of Patagonia, sometimes under the ocean, sometimes at the surface. The Nautilus passed beyond the large estuary formed by the mouth of the Plata, and was, on April 4, fifty-six miles off Uraguay. Its direction was northwards, and followed the long windings of the coast of South America. We had then made 16,000 miles since our embarkation in the seas of Japan. About eleven o'clock in the morning the Tropic of Capricorn was crossed on the thirty-seventh meridian, and we passed Cape Frio standing out to sea. Captain Nemo, to Ned Land's great displeasure, did not like the neighborhood of the inhabited coasts of Brazil, for we went at a giddy speed. Not a fish, not a bird of the swiftest kind could follow us, and the natural curiosities of these seas escaped all observation.

This speed was kept up for several days, and in the evening of April 9 we sighted the most westerly point of South America that forms Cape San Roque. But then the Nautilus swerved again, and sought the lowest depth of a submarine valley which is between this cape and Sierra Leone on the African coast. This valley bifurcates to the parallel of the Antilles, and terminates at the north by the enormous depression of 9,000 yards. In this place, the geological basin of the ocean forms, as far as the Lesser Antilles, a cliff of three and a half miles perpendicular in height, and at the parallel of the Cape Verde Islands, another wall not less considerable, that encloses thus all the sunk continent of the Atlantic.

The bottom of this immense valley is dotted with some mountains, that give to these submarine places a picturesque aspect. I speak, moreover, from the manuscript charts that were in the library of the Nautilus- charts evidently due to Captain Nemo's hand, and made after his personal observations. For two days the desert and deep waters were visited by means of the inclined planes. The Nautilus was furnished with long diagonal broadsides which carried it to all elevations. But, on April 11, it rose suddenly, and land appeared at the mouth of the Amazon River, a vast estuary, the embouchure of which is so considerable that it freshens the sea water for the distance of several leagues.

The equator was crossed. Twenty miles to the west were the Guianas, a French territory, on which we could have found an easy refuge; but a stiff breeze was blowing, and the furious waves would not have allowed a single boat to face them. Ned Land understood that, no doubt, for he spoke not a word about it. For my part, I made no allusion to his schemes of flight, for I would not urge him to make an attempt that must inevitably fail. I made the time pass pleasantly by interesting studies.

During the days of April 11 and 12, the Nautilus did not leave the surface of the sea, and the net brought in a marvelous haul of zoophytes, fish and reptiles. Some zoophytes had been fished up by the chain of the nets; they were for the most part beautiful phyctallines,

belonging to the actinidian family, and among other species the phyctalis protexta, peculiar to that part of the ocean, with a little cylindrical trunk, ornamented with vertical lines speckled with red dots, crowning a marvelous blossoming of tentacles. As to the mollusks, they consisted of some I had already observed-turritellas, olive porphyras, with regular lines intercrossed, with red spots standing out plainly against the flesh; odd pteroceras, like petrified scorpions; translucid hyaleas, argonauts, cuttlefish (excellent eating), and certain species of calmars that naturalists of antiquity have classed amongst the flying-fish, and that serve principally for bait for cod-fishing.

I had an opportunity of studying several species of fish on these shores. Among the cartilaginous ones, petromyzons-pricka, a sort of eel, fifteen inches long, with a greenish head, violet fins, gray-blue back, brown belly, silvered and sown with bright spots, the pupil of the eye encircled with gold- a curious animal, that the current of the Amazon had drawn to the sea, for they inhabit fresh water-tuberculated streaks, with pointed snouts, and a long loose tail, armed with a long jagged sting. Little sharks, a yard long, gray and whitish skin, and several rows of teeth, bent back, that are generally known by the name of pantouffles; vespertilios, a kind of red isosceles triangle, half a yard long, to which pectorals are attached by fleshy prolongations that make them look like bats. Their horny appendage, situated near the nostrils, has given them the name of sea-unicorns; lastly, some species of balistae, the curassavian, whose spots were of a brilliant gold color, and the capriscus of clear violet, and with varying shades like a pigeon's throat.

I end here this catalog, which is somewhat dry perhaps, but very exact, with a series of bony fish that I observed in passing belonging to the apteronotes, and whose snout is white as snow, the body of a beautiful black, marked with a very long loose fleshy strip; odontognathes, armed with spikes; sardines; nine inches long, glittering with a bright silver light; a species of mackerel provided with two anal fins; centronotes of a blackish tint, that are fished for with torches long fish, two yards in length, with flat flesh, white and firm, which, when they are fresh, taste like eel, and when dry, like smoked salmon; labres, half red, covered with scales only at the bottom of the dorsal and anal fins; chrysoptera, on which gold and silver blend their brightness with that of the ruby and topaz; golden-tailed spares, the flesh of which is extremely delicate, and whose phosphorescent properties betray them in the midst of the waters; orange-colored spares with a long tongue; maigres, with gold caudal fins, dark thorntails, anableps of Surinam, etc.

Notwithstanding this "etcetera," I must not omit to mention fish that Conseil will long remember, and with good reason. One of our nets had hauled up a sort of very flat rayfish, which, with the tail cut off, formed a perfect disc, and weighed twenty ounces. It was white underneath, red above, with large round spots of dark blue encircled with black, very glossy skin, terminating in a bilobed fin. Laid out on the platform, it struggled, tried to turn itself by convulsive movements, and made so many efforts, that one last turn had nearly sent it into the sea. But Conseil, not wishing to let the fish go, rushed to it, and, before I could prevent him, had seized it with both hands. In a moment he was overthrown, his legs in the air, and half his body paralyzed, crying:

"Oh! master, master! come to me!"

It was the first time the poor boy had not spoken to me in the third person. The Canadian and I took him up, and rubbed his

contracted arms till he became sensible. The unfortunate Conseil had attacked a crampfish of the most dangerous kind, the cumana. This odd animal, in a medium conductor like water, strikes fish at several yards' distance, so great is the power of its electric organ, the two principal surfaces of which do not measure less than twenty-seven square feet.

The next day, April 12, the Nautilus approached the Dutch coast, near the mouth of the Maroni. There several groups of sea-cows herded together; they were manatees, that, like the dugong and the stellera, belong to the sirenian order. These beautiful animals, peaceable and inoffensive, from eighteen to twenty-one feet in length, weigh at least sixteen hundredweight. I told Ned Land and Conseil that provident nature had assigned an important role to these mammalia. Indeed, they, like the seals, are designed to graze on the submarine prairies, and thus destroy the accumulation of weed that obstructs the tropical rivers.

"And do you know," I added, "what has been the result since men have almost entirely annihilated this useful race? That the putrified weeds have poisoned the air, and the poisoned air causes the yellow fever, that desolates these beautiful countries. Enormous vegetations are multiplied under the torrid seas, and the evil is irresistibly developed from the mouth of the Rio de la Plata to Florida. If we are to believe Toussenel, this plague is nothing to what it would be if the seas were cleared of whales and seals. Then, infested with poulps, medusae, and cuttlefish, they would become immense centres of infection, since their waves would not possess 'these vast stomachs that God had charged to infest the surface of the seas.'"

However, without disputing these theories, the crew of the Nautilus took possession of half a dozen manatees. They provisioned the larders with excellent fish, superior to beef and veal. This sport was not interesting. The manatees allowed themselves to be hit without defending themselves. Several thousand pounds of meat were stored up on board to be dried. On this day, a successful haul of fish increased the stores of the Nautilus, so full of game were these seas. They were echeneides belonging to the third family of the malacopterygians; their flattened discs were composed of transverse movable cartilaginous plates, by which the animal was enabled to create a vacuum, and to adhere to any object like a cupping-glass. The remora that I had observed in the Mediterranean belongs to this species. But the one of which we are speaking was the echeneis osteochera, peculiar to this sea.

The fishing over, the Nautilus neared the coast. About here a number of sea turtles were sleeping on the surface of the water. It would have been difficult to capture these precious reptiles, for the least noise awakens them, and their solid shell is proof against the harpoon. But the echeneis effects their capture with extraordinary precision and certainty. This animal is, indeed, a living fish-hook, which would make the fortune of an inexperienced fisherman. The crew of the Nautilus tied a ring to the tail of these fish, so large as not to encumber their movements, and to this ring a long cord, lashed to the ship's side by the other end.

The echeneids, thrown into the sea, directly began their game, and fixed themselves to the breastplate of the turtles. Their tenacity was such, that they were torn rather than let go their hold. The men hauled them on board, and with them the turtles to which they adhered. They took also several cacouannes a yard long, which weighed 400 lbs. Their carapace covered with large horny plates, thin, transparent, brown, with white and yellow spots, fetch a good price in the market. Besides, they were excellent in an edible point of view,

as well as the fresh turtles, which have an exquisite flavor. This day's fishing brought to a close our stay on the shores of the Amazon, and by nightfall the Nautilus had regained the high seas.

CHAPTER XVIII.

## THE POULPS.

FOR several days the Nautilus kept off from the American coast. Evidently it did not wish to risk the tides of the Gulf of Mexico, or of the sea of the Antilles. April 16, we sighted Martinique and Guadaloupe from a distance of about thirty miles. I saw their tall peaks for an instant. The Canadian, who counted on carrying out his projects in the Gulf, by either landing, or hailing one of the numerous boats that coast from one island to another, was quite disheartened. Flight would have been quite practicable, if Ned Land had been able to take possession of the boat without the captain's knowledge. But in the open sea it could not be thought of. The Canadian, Conseil, and I had a long conversation on this subject. For six months we had been prisoners on board the Nautilus. We had travelled 17,000 leagues; and, as Ned Land said, there was no reason why it should not come to an end. We could hope nothing from the captain of the Nautilus, but only from ourselves. Besides, for some time past he had become graver, more retired, less sociable. He seemed to shun me. I met him rarely. Formerly, he was pleased to explain the submarine marvels to me; now, he left me to my studies, and came no more to the saloon. What change had come over him? For what cause?

For my part, I did not wish to bury with me my curious and novel studies. I had now the power to write the true book of the sea; and this book, sooner or later, I wished to see daylight. Then again, in the water by the Antilles, ten yards below the surface of the waters, by the open panels, what interesting products I had to enter on my daily notes! There were, among other zoophytes, those known under the name of physalis pelagica, a sort of large oblong bladder, with mother-of-pearl rays, holding out their membranes to the wind, and letting their blue tentacles float like threads of silk; charming medusae to the eye, real nettles to the touch, that distil a corrosive fluid. There were also annelides, a yard and a half long, furnished with a pink horn, and with 1,700 locomotive organs, that wind through the waters, and throw out in passing all the light of the solar spectrum. There were, in the fish category, some Malabar rays, enormous gristly things, ten feet long, weighing 600 pounds, the pectoral fin triangular in the midst of a slightly humped back, the eyes fixed in the extremities of the face, beyond the head, and which floated like weft, and looked sometimes like an opaque shutter on our glass window. There were American balistae, which nature has only dressed in black and white; gobies, with yellow fins and prominent jaw; mackerel sixteen feet long, with short-pointed teeth, covered with small scales, belonging to the albicore species. Then, in swarms, appeared, gray mullet, covered with stripes of gold from the head to the tail, beating their resplendent fins, like masterpieces of jewelry, consecrated formerly to Diana, particularly sought after by rich Romans, and of which the proverb says, "Whoever takes them does not eat them."

Lastly, pomacanthe dorees, ornamented with emerald bands, dressed in velvet and silk passed before our eyes like Veronese lords; spurred spari passed with their pectoral fins; clupanodons fifteen inches long, enveloped in their phosphorescent light; mullet beat the sea with their large jagged tail; red vendaces seemed to mow the waves with their showy pectoral fins; and silvery selenes, worthy of their name, rose on the horizon of the waters like so many moons

with whitish rays. April 20, we had risen to a mean height of 1,500 yards. The land nearest us then was the archipelago of the Bahamas. There rose high submarine cliffs covered with large weeds, giant laminariae and fuci, a perfect espalier of hydrophytes worthy of a Titan world. It was about eleven o'clock when Ned Land drew my attention to a formidable pricking, like a sting of an ant, which was produced by means of large seaweeds.

"Well," I said, "these are proper caverns for poulps, and I should not be astonished to see some of these monsters."

"What!" said Conseil; "cuttlefish, real cuttlefish, of the cephalopod class?"

"No," I said; "poulps of huge dimensions."

"I will never believe that such animals exist," said Ned.

"Well," said Conseil, with the most serious air in the world; "I remember perfectly to have seen a large vessel drawn under the waves by a cephalopod's arm."

"You saw that?" said the Canadian.

"Yes, Ned."

"With your own eyes?"

"With my own eyes."

"Where, pray, might that be?"

"At St. Malo," answered Conseil.

"In the port?" said Ned, ironically.

"No; in a church," replied Conseil.

"In a church!" cried the Canadian.

"Yes; friend Ned. In a picture representing the poulp in question."

"Good!" said Ned Land, bursting out laughing.

"He is quite right," I said. "I have heard of this picture; but the subject represented is taken from a legend, and you know what to think of legends in the matter of natural history. Besides, when it is a question of monsters, the imagination is apt to run wild. Not only is it supposed that these poulps can draw down vessels, but a certain Olaus Magnus speaks of a cephalopod a mile long, that is more like an island than an animal. It is also said that the Bishop of Nidros was building an altar on an immense rock. Mass finished, the rock began to walk, and returned to the sea. The rock was a poulp. Another bishop, Pontoppidan, speaks also of a poulp on which a regiment of cavalry could maneuver. Lastly, the ancient naturalists speak of monsters whose mouths were like gulfs, and which were too large to pass through the Straits of Gibraltar."

"But how much is true of these stories?" asked Conseil.

"Nothing, my friends; at least of that which passes the limit of truth to get to fable or legend. Nevertheless, there must be some ground for the imagination of the story-tellers. One cannot deny that poulps and cuttlefish exist of a large species, inferior, however, to the cetaceans. Aristotle had stated the dimensions of a cuttlefish as five cubits, or nine feet two inches. Our fishermen frequently see some that are more than four feet long. Some skeletons of poulps are preserved in the museums of Trieste and Montpellier, that measure two yards in length. Besides, according to the calculations of some naturalists, one of these animals, only six feet long, would have tentacles twenty-seven feet long. That would suffice to make a formidable monster."

"Do they fish for them in these days?" asked Ned.

"If they do not fish for them, sailors see them at least. One of my friends, Captain Paul Bos of Havre, has often affirmed that he met one of these monsters, of colossal dimensions, in the Indian seas. But the most astonishing fact, and which does not permit of the denial of the existence of these gigantic animals, happened some years ago,

in 1861."

"What is the fact?" asked Ned Land.

"This is it. In 1861, to the north-east of Teneriffe, very nearly in the same latitude we are in now, the crew of the despatch boat Alector perceived a monstrous cuttlefish swimming in the waters. Captain Bouguer went near to the animal, and attacked it with harpoons and guns, without much success, for balls and harpoons glided over the soft flesh. After several fruitless attempts, the crew tried to pass a slip-knot round the body of the mollusk. The noose slipped as far as the caudal fins, there stopped. They tried then to haul it on board, but its weight was so considerable that the tightness of the cord separated the tail from the body, and, deprived of this ornament, he disappeared under the water."

"Indeed! is that a fact?"

"An indisputable fact, my good Ned. They proposed to name this poulp 'Bouguer's cuttlefish.'"

"What length was it?" asked the Canadian.

"Did it not measure about six yards?" said Conseil, who, posted at the window, was examining again the irregular windings of the cliff.

"Precisely," I replied.

"Its head," rejoined Conseil, "was it not crowned with eight tentacles, that beat the water like a nest of serpents?"

"Precisely."

"Had not its eyes, placed at the back of its head, considerable development?"

"Yes, Conseil."

"And was not its mouth like a parrot's beak?"

"Exactly, Conseil."

"Very well! no offence to master," he replied, quietly; "if this is not Bouquer's cuttlefish, it is, at least one of its brothers."

I looked at Conseil. Ned Land hurried to the window.

"What a horrible beast!" he cried.

I looked in my turn, and could not repress a gesture of disgust. Before, my eyes was a horrible monster, worthy to figure in the legends of the marvelous. It was an immense cuttlefish, being eight yards long. It swam crossways in the direction of the Nautilus with great speed, watching us with its enormous staring green eyes. Its eight arms, or rather feet, fixed to its head, that have given the name of cephalopod to these animals, were twice as long as its body, and were twisted like the furies' hair. One could see the 250 air-holes on the inner side of the tentacles. The monster's mouth, a horned beak like a parrot's, opened and shut vertically. Its tongue, a horned substance, furnished with several rows of pointed teeth, came out quivering from this veritable pair of shears.

What a freak of nature, a bird's beak on a mollusk! Its spindle-like body formed a fleshy mass that might weigh 4,000 to 5,000 lbs.; the varying color changing with great rapidity, according to the irritation of the animal, passed successively from livid gray to reddish brown. What irritated this mollusk? No doubt the presence of the Nautilus, more formidable than itself, and on which its suckers or its jaws had no hold. Yet, what monsters these poulps are! what vitality the Creator has given them! what vigor in their movements! and they possess three hearts! Chance had brought us in the presence of this cuttlefish, and I did not wish to lose the opportunity of carefully studying this specimen of cephalopods. I overcame the horror that inspired me; and, taking a pencil, began to draw it.

"Perhaps this is the same which the Alecto saw," said Conseil.

"No," replied the Canadian; "for this is whole, and the other had lost its tail."

"That is no reason," I replied. "The arms and tails of these

animals are reformed by redintegration; and in seven years, the tail of Bouguer's cuttlefish has no doubt had time to grow."

By this time other poulps appeared at the port light. I counted seven. They formed a procession after the Nautilus, and I heard their beaks gnashing against the iron hull. I continued my work. These monsters kept in the water with such precision, that they seemed immovable. Suddenly the Nautilus stopped. A shock made it tremble in every plate.

"Have we struck anything?" I asked.

"In any case," replied the Canadian, "we shall be free, for we are floating."

The Nautilus was floating, no doubt, but it did not move. A minute passed. Captain Nemo, followed by his lieutenant, entered the drawing-room. I had not seen him for some time. He seemed dull. Without noticing or speaking to us, he went to the panel, looked at the poulps, and said something to his lieutenant. The latter went out. Soon the panels were shut. The ceiling was lighted. I went towards the Captain.

"A curious collection of poulps?" I said.

"Yes, indeed, Mr. Naturalist," he replied; "and we are going to fight them, man to beast."

I looked at him. I thought I had not heard aright.

"Man to beast?" I repeated.

"Yes, Sir. The screw is stopped. I think that the horny jaws of one of the cuttlefish are entangled in the blades. That is what prevents our moving."

"What are you going to do?"

"Rise to the surface, and slaughter this vermin."

"A difficult enterprise."

"Yes, indeed. The electric bullets are powerless against the soft flesh, where they do not find resistance enough to go off. But we shall attack them with the hatchet."

"And the harpoon, Sir," said the Canadian, "if you do not refuse my help."

"I will accept it, Master Land."

"We will follow you," I said, and following Captain Nemo, we went towards the central staircase.

There, about ten men with boarding hatchets were ready for the attack. Conseil and I took two hatchets; Ned Land seized a harpoon. The Nautilus had then risen to the surface. One of the sailors, posted on the top ladderstep, unscrewed the bolts of the panels. But hardly were the screws loosed, when the panel rose with great violence, evidently drawn by the suckers of a poulp's arm. Immediately one of these arms slid like a serpent down the opening, and twenty others were above. With one blow of the axe, Captain Nemo cut this formidable tentacle, that slid wriggling down the ladder. Just as we were pressing one on the other to reach the platform, two other arms, lashing the air, came down on the seaman placed before Captain Nemo, and lifted him up with irresistible power. Captain Nemo uttered a cry, and rushed out. We hurried after him.

What a scene! The unhappy man, seized by the tentacle, and fixed to the suckers, was balanced in the air at the caprice of this enormous trunk. He rattled in his throat, he was stifled, he cried, "Help! help!" These words, spoken in French, startled me! I had a fellow countryman on board, perhaps several! That heartrending cry! I shall hear it all my life. The unfortunate man was lost. Who could rescue him from that powerful pressure? However, Captain Nemo had rushed to the poulp, and with one blow of the axe had cut through one arm. His lieutenant struggled furiously against other monsters that crept on the flanks of the Nautilus. The crew fought with their

axes. The Canadian, Conseil, and I, buried our weapons in the fleshy masses; a strong smell of musk penetrated the atmosphere. It was horrible!

For one instant, I thought the unhappy man, entangled with the poulp, would be torn from its powerful suction. Seven of the eight arms had been cut off. One only wriggled in the air, brandishing the victim like a feather. But just as Captain Nemo and his lieutenant threw themselves on it, the animal ejected a stream of black liquid We were blinded with it. When the cloud dispersed, the cuttlefish had disappeared, and my unfortunate countryman with it. Ten or twelve poulps now invaded the platform and sides of the Nautilus. We rolled pell-mell into the nest of serpents that wriggled on the platform in the waves of blood and ink. It seemed as though these slimy tentacles sprang up like the hydra's heads. Ned Land's harpoon, at each stroke, was plunged into the staring eyes of the cuttlefish. But my bold companion was suddenly overturned by the tentacles of a monster he had not been able to avoid.

Ah! how my heart beat with emotion and horror! The formidable beak of a cuttlefish was open over Ned Land. The unhappy man would be cut in two. I rushed to his succor. But Captain Nemo was before me; his axe disappeared between the two enormous jaws, and miraculously saved the Canadian, rising, plunged his harpoon deep into the triple heart of the poulp.

"I owed myself this revenge!" said the captain to the Canadian.

Ned bowed without replying. The combat had lasted a quarter of
an hour. The monsters, vanquished and mutilated, left us at last,
and disappeared under the waves. Captain Nemo, covered with blood,
nearly exhausted gazed upon the sea that had swallowed up one of his
companions, and great tears gathered in his eyes.

CHAPTER XIX.

### THE GULF STREAM.

THIS terrible scene of April 20 none of us can ever forget. I have written it under the influence of violent emotion. Since then I have revised the recital; I have read it to Conseil and to the Canadian. They found it exact as to facts, but insufficient as to effect. To paint such pictures, one must have the pen of the most illustrious of our poets, the author of "The Toilers of the Deep."

I have said that Captain Nemo wept while watching the waves; his grief was great. It was the second companion he had lost since our arrival on board, and what a death! That friend, crushed, stifled, bruised by the dreadful arms of a poulp pounded by his iron jaws, would not rest with his comrades in the peaceful coral cemetery! In the midst of the struggle, it was the despairing cry uttered by the unfortunate man that had torn my heart. The poor Frenchman, forgetting his conventional language, had taken to his own mother tongue, to utter a last appeal! Amongst the crew of the Nautilus, associated with the body and soul of the Captain, recoiling like him from all contact with men, I had a fellow countryman. Did he alone represent France in this mysterious association, evidently composed of individuals of diverse nationalities? It was one of these insoluble problems that rose up unceasingly before my mind!

Captain Nemo entered his room, and I saw him no more for some time. But that he was sad and irresolute I could see by the vessel, of which he was the soul, and which received all his impressions. The Nautilus did not keep on in its settled course; it floated about like a corpse at the will of the waves. It went at random. He could not tear himself away from the scene of the last struggle, from this sea that had devoured one of his men. Ten days passed thus. It was not

till May 1 that the Nautilus resumed its northerly course, after having sighted the Bahamas at the mouth of the Bahama Canal. We were then following the current from the largest river to the sea, that has its banks, its fish, and its proper temperatures. I mean the Gulf Stream. It is really a river, that flows freely to the middle of the Atlantic, and whose waters do not mix with the ocean waters. It is a salt river, salter than the surrounding sea. Its mean depth is 1,500 fathoms, its mean breadth ten miles. In certain places the current flows with the speed of two miles and a half an hour. The body of its waters is more considerable than that of all the rivers in the globe. It was on this ocean river that the Nautilus then sailed.

This current carried with it all kinds of living things. Argonauts, so common in the Mediterranean, were there in quantities. Of the gristly sort, the most remarkable were the turbot, whose slender tails form nearly the third part of the body, and that looked like large lozenges twenty-five feet long; also, small sharks a yard long, with large heads, short rounded muzzles, pointed teeth in several rows, and whose bodies seemed covered with scales. Among the bony fish I noticed some gray gobies, peculiar to these waters; black giltheads, whose iris shone like fire; sirenes a yard long, with large snouts thickly set with little teeth, that uttered little cries; blue coryphaenes, in gold and silver; parrots, like the rainbows of the ocean, that could rival in color the most beautiful tropical birds; blennies with triangular heads; bluish rhombs destitute of scales; batrachoides covered with yellow transversal bands like a Greek T; heaps of little gobies spotted with yellow; dipterodons with silvery heads and yellow tails; several specimens of salmon, mugilomores slender in shape, shining with a soft light that Lacepede consecrated to the service of his wife; and lastly, a beautiful fish, the American knight, that, decorated with all the orders and ribbons, frequents the shores of this great nation, that esteems orders and ribbons so little.

I must add that, during the night, the phosphorescent waters of the Gulf Stream rivaled the electric power of our watchlight, especially in the stormy weather that threatened us so frequently. May 8, we were still crossing Cape Hatteras, at the height of the North Caroline. The width of the Gulf Stream there is seventy-five miles, and its depth 210 yards. The Nautilus still went at random; all supervision seemed abandoned. I thought that, under these circumstances, escape would be possible. Indeed, the inhabited shores offered anywhere an easy refuge. The sea was incessantly ploughed by the steamers that ply between New York or Boston and the Gulf of Mexico, and overrun day and night by the little schooners coasting about the several parts of the American coast. We could hope to be picked up.

It was a favorable opportunity, notwithstanding the thirty miles that separated the Nautilus from the coasts of the Union. One unfortunate circumstance thwarted the Canadian's plans. The weather was very bad. We were nearing those shores where tempests are so frequent, that country of waterspouts and cyclones actually engendered by the current of the Gulf Stream. To tempt the sea in a frail boat was certain destruction. Ned Land owned this himself. He fretted, seized with nostalgia that flight only could cure.

"Master," he said that day to me, "this must come to an end. I must make a clean breast of it. This Nemo is leaving land and going up to the north. But I declare to you, I have had enough of the South Pole, and I will not follow him to the North."

"What is to be done, Ned, since flight is impracticable just now?"

"We must speak to the captain," said he; "you said nothing when we were in your native seas. I will speak, now we are in mine. When I

think that before long the Nautilus will be by Nova Scotia, and that there near Newfoundland is a large bay, and into that bay the St. Lawrence empties itself, and that the St. Lawrence is my river, the river by Quebec my native town, - when I think of this, I feel furious, it makes my hair stand on end. Sir, I would rather throw myself into the sea! I will not stay here! I am stifled!"

The Canadian was evidently losing all patience. His vigorous nature could not stand this prolonged imprisonment. His face altered daily; his temper became more surly. I knew what he must suffer, for I was seized with nostalgia myself. Nearly seven months had passed without our having had any news from land; Captain Nemo's isolation, his altered spirits, especially since the fight with the poulps, his taciturnity, all made me view things in a different light.

"Well, Sir?" said Ned, seeing I did not reply.

"Well, Ned! do you wish me to ask Captain Nemo his intentions concerning us?"

"Yes, Sir."

"Although he has already made them known?"

"Yes; I wish it settled finally. Speak for me, in my name only, if you like."

"But I so seldom meet him. He avoids me."

"That is all the more reason for you to go to see him."

I went to my room. From thence I meant to go to Captain Nemo's. It would not do to let this opportunity of meeting him slip. I knocked at the door. No answer. I knocked again, then turned the handle. The door opened, I went in. The captain was there. Bending over his worktable, he had not heard me. Resolved not to go without having spoken, I approached him. He raised his head quickly, frowned, and said roughly, "You here! What do you want?"

"To speak to you, Captain."

"But I am busy, Sir; am working. I leave you at liberty to shut yourself up; cannot I be allowed the same?"

This reception was not encouraging; but I was determined to hear and answer everything.

"Sir," I said, coldly, "I have to speak to you on a matter that admits of no delay."

"What is that, Sir?", he replied, ironically. "Have you discovered something that has escaped me, or has the sea delivered up any new secrets?"

We were at cross-purposes. But before I could reply, he showed me an open manuscript on his table, and said, in a more serious tone, "Here, M. Aronnax, is a manuscript written in several languages. It contains the sum of my studies of the sea; and, if it please God, it shall not perish with me. This manuscript, signed with my name, completed with the history of my life, will be shut up in a little insubmersible case. The last survivor of all of us on board the Nautilus will throw this case into the sea, and it will go whither it is borne by the waves."

This man's name! his history written by himself! His mystery would then be revealed some day.

"Captain," I said, "I can but approve of the idea that makes you act thus. The result of your studies must not be lost. But the means you employ seem to me to be primitive. Who knows where the winds will carry this case, and in whose hands it will fall? Could you not use some other means? Could not you, or one of yours"-

"Never, Sir!" he said, hastily interrupting me.

"But I and my companions are ready to keep this manuscript in store; and, if you will put us at liberty"-

"At liberty?" said the captain, rising.

"Yes, Sir; that is the subject on which I wish to question you.

For seven months we have been here on board, and I ask you today, in the name of my companions, and in my own, if your intention is to keep us here always?"

"M. Aronnax, I will answer you today as I did seven months ago: Whoever enters the Nautilus must never quit it."

"You impose actual slavery on us!"

"Give it what name you please."

"But everywhere the slave has the right to regain his liberty."

He looked at me with his arms crossed.

"Sir," I said, "to return a second time to this subject will be neither to your nor to my taste; but, as we have entered upon it, let us go through with it. I repeat, it is not only myself whom it concerns. Study is to me a relief, a diversion, a passion that could make me forget everything. Like you, I am willing to live obscure, in the frail hope of bequeathing one day, to future time, the result of my labors. But it is otherwise with Ned Land. Every man, worthy of the name, deserves some consideration. Have you thought that love of liberty, hatred of slavery, can give rise to schemes of revenge in a nature like the Canadian's; that he could think, attempt, and try"-

I was silenced; Captain Nemo rose.

"Whatever Ned Land thinks of, attempts, or tries, what does it matter to me? I did not seek him! It is not for my pleasure that I keep him on board! As for you, M. Aronnax, you are one of those who can understand everything, even silence. I have nothing more to say to you. Let this first time you have come to treat of this subject be the last; for a second time I will not listen to you."

I retired. Our situation was critical. I related my conversation to my two companions.

"We know now," said Ned, "that we can expect nothing from this man. The Nautilus is nearing Long Island. We will escape, whatever the weather may be."

But the sky became more and more threatening. Symptoms of a hurricane became manifest. The atmosphere was becoming white and misty. On the horizon fine streaks of cirrhous clouds were succeeded by masses of cumuli. Other low clouds passed swiftly by. The swollen sea rose in huge billows. The birds disappeared, with the exception of the petrels, those friends of the storm. The barometer fell sensibly, and indicated an extreme tension of the vapors. The mixture of the storm glass was decomposed under the influence of the electricity that pervaded the atmosphere. The tempest burst on May 18, just as the Nautilus was floating off Long Island, some miles from the port of New York. I can describe this strife of the elements! for, instead of fleeing to the depths of the sea, Captain Nemo, by an unaccountable caprice, would brave it at the surface.

The wind blew from the south-west at first. Captain Nemo, during the squalls, had taken his place on the platform. He had made himself fast, to prevent being washed overboard by the monstrous waves. I had hoisted myself up, and made myself fast also, dividing my admiration between the tempest and this extraordinary man who was coping with it. The raging sea was swept by huge cloud-drifts, which were actually saturated with the waves. The Nautilus, sometimes lying on its side sometimes standing up like a mast, rolled and pitched terribly.

About five o'clock a torrent of rain fell that lulled neither sea nor wind. The hurricane blew nearly forty leagues an hour It is under these conditions that it overturns houses, breaks iron gates, displaces twenty-four pounders. However, the Nautilus, in the midst of

the tempet, confirmed the words of a clever engineer, "There is no well-constructed hull that cannot defy the sea." This was not a resisting rock; it was a steel spindle, obedient and movable, without rigging or masts that braved its fury with impunity. However, I watched these raging waves attentively. They measured fifteen feet in height, and 150 to 175 yards long, and their speed of propagation was thirty feet per second. Their bulk and power increased with the depth of the water. Such waves as these, at the Hebrides, have displaced a mass weighing 8,400 lbs. They are they which, in the tempest of December 23, 1864, after destroying the town of Yeddo, in Japan, broke the same day on the shores of America.

The intensity of the tempest increased with the night. The barometer, as in 1860 at Reunion during a cyclone, fell seven-tenths at the close of day. I saw a large vessel pass the horizon struggling painfully. She was trying to lie to under half steam, to keep up above the waves. It was probably one of the steamers of the line from New York to Liverpool, or Havre. It soon disappeared in the gloom. At ten o'clock in the evening the sky was on fire. The atmosphere was streaked with vivid lightning. I could not bear the brightness of it; while the captain, looking at it, seemed to envy the spirit of the tempest.

A terrible noise filled the air, a complex noise, made up of the howls of the crushed waves, the roaring of the wind, and the peals of thunder. The wind veered suddenly to all points of the horizon; and the cyclone, rising in the east, returned after passing by the north, west, and south, in the inverse course pursued by the circular storms of the southern hemisphere. Ah, that Gulf Stream! It deserves its name of the King of Tempests. It is that which causes those formidable cyclones, by the difference of temperature between its air and its currents. A shower of fire had succeeded the rain. The drops of water were changed to sharp spikes. One would have thought that Captain Nemo was courting a death worthy of himself, a death by lightning.

As the Nautilus, pitching dreadfully, raised its steel spur in the air, it seemed to act as a conductor, and I saw long sparks burst from it. Crushed and without strength, I crawled to the panel, opened it, and descended to the saloon. The storm was then at its height. It was impossible to stand upright in the interior of the Nautilus. Captain Nemo came down about twelve. I heard the reservoirs filling by degrees, and the Nautilus sank slowly beneath the waves. Through the open windows in the saloon I saw large fish terrified, passing like phantoms in the water. Some were struck before my eyes. The Nautilus was still descending. I thought that at about eight fathoms deep we should find a calm. But no the upper beds were too violently agitated for that. We had to seek repose at more than twenty-five fathoms in the bowels of the deep. But there, what quiet, what silence, what peace! Who could have told that such a hurricane had been let loose on the surface of that ocean?

CHAPTER XX.

FROM LATITUDE 47 DEGREES 24' TO LONGITUDE 17 DEGREES 28'.

IN CONSEQUENCE of the storm, we had been thrown eastward ward once more. All hope of escape on the shores of New York or St. Lawrence had faded away; and poor Ned, in despair, had isolated himself like Captain Nemo. Conseil and I, however, never left each other. I said that the Nautilus had gone aside to the east. I should have said (to be more exact), the northeast. For some days, it wandered first on the surface, and then beneath it, amid those fogs so dreaded by sailors. What accidents are due to these thick fogs! What shocks upon these

reefs when the wind drowns the breaking of the waves! What collisions between vessels, in spite of their warning lights, whistles, and alarm bells! And the bottoms of these seas look like a field of battle, where still lie all the conquered of the ocean; some old and already encrusted, others fresh and reflecting from their iron bands and copperplates the brilliancy of our lantern.

On May 15, we were at the extreme south of the Bank of Newfoundland. This bank consists of alluvia, or large heaps of organic matter, brought either from the Equator by the Gulf Stream, or from the North Pole by the counter current of cold water which skirts the American coast. There also are heaped up those erratic blocks which are carried along by the broken ice; and close by, a vast charnel-house of mollusks or zoophytes, which perish here by millions. The depth of the sea is not great at Newfoundland- not more than some hundreds of fathoms; but towards the south is a depression of 1,500 fathoms. There the Gulf Stream widens. It loses some of its speed and some of its temperature, but it becomes a sea.

It was on May 17, about 500 miles from Heart's Content, at a depth of more than 1,400 fathoms, that I saw the electric cable lying on the bottom. Conseil, to whom I had not mentioned it, thought at first that it was a gigantic sea serpent. But I undeceived the worthy fellow, and by way of consolation related several particulars in the laying of this cable. The first one was laid in the years 1857 and 1858; but, after transmitting about 400 telegrams, would not act any longer. In 1863, the engineers constructed another one, measuring 2,000 miles in length, and weighing 4,500 tons, which was embarked on the Great Eastern. This attempt also failed.

On May 25, the Nautilus, being at a depth of more than 1,918 fathoms, was on the precise spot where the rupture occurred which ruined the enterprise. It was within 638 miles of the coast of Ireland; and at half-past two in the afternoon, they discovered that communication with Europe had ceased. The electricians on board resolved to cut the cable before fishing it up, and at eleven o'clock at night they had recovered the damaged part. They made another point and spliced it, and it was once more submerged. But some days after it broke again, and in the depths of the ocean could not be recaptured. The Americans, however, were not discouraged.

Cyrus W. Field, the bold promoter of the enterprise, as he had sunk all his own fortune, set a new subscription on foot, which was at once answered, and another cable was constructed on better principles. The bundles of conducting wires were each enveloped in gutta-percha, and protected by a wadding of hemp, contained in a metallic covering. The Great Eastern sailed on July 13, 1866. The operation worked well. But one incident occurred. Several times in unrolling the cable they observed that nails had been recently forced into it, evidently with the motive of destroying it. Captain Anderson, the officers, and engineers, consulted together, and had it posted up that if the offender was surprised on board, he would be thrown without further trial into the sea. From that time the criminal attempt was never repeated.

On July 23, the Great Eastern was not more than 500 miles from Newfoundland, when they telegraphed from Ireland news of the armistice concluded between Prussia and Austria after Sadowa. On July 27, in the midst of heavy fogs, they reached the port of Heart's Content. The enterprise was successfully terminated; and for its first despatch, young America addressed old Europe in these words of wisdom so rarely understood- "Glory to God in the highest, and on earth peace, goodwill toward men."

I did not expect to find the electric cable in its primitive state, such as it was on leaving the manufactory. The long serpent,

covered with the remains of shells, bristling with foraminiferae, was encrusted with a strong coating which served as a protection against all boring mollusks. It lay quietly sheltered from the motions of the sea, and under a favorable pressure for the transmission of the electric spark which passes from Europe to America in .32 of a second. Doubtless this cable will last for a great length of time, for they find that the gutta-percha covering is improved by the sea water. Besides, on this level, so well chosen, the cable is never so deeply submerged as to cause it to break. The Nautilus followed it to the lowest depth, which was more than 2,212 fathoms, and there it lay without any anchorage; and then we reached the spot where the accident had taken place in 1863. The bottom of the ocean then formed a valley about 100 miles broad, in which Mont Blanc might have been placed without its summit appearing above the waves. This valley is closed at the east by a perpendicular wall more than 2,000 yards high. We arrived there on May 28, and the Nautilus was then more than 120 miles from Ireland.

Was Captain Nemo going to land on the British Isles? No. To my great surprise he made for the south, once more coming back towards European seas. In rounding the Emerald Isle, for one instant I caught sight of Cape Clear, and the light which guides the thousands of vessels leaving Glasgow or Liverpool. An important question then arose in my mind. Did the Nautilus dare entangle itself in the Manche? Ned Land, who had reappeared since we had been nearing land, did not cease to question me. How could I answer? Captain Nemo remained invisible. After having shown the Canadian a glimpse of American shores, was he going to show me the coast of France?

But the Nautilus was still going southward. On May 30, it passed in sight of the Land's End, between the extreme point of England and the Scilly Isles, which were left to starboard. If he wished to enter the Manche he must go straight to the east. He did not do so.

During the whole of May 31, the Nautilus described a series of circles on the water, which greatly interested me. It seemed to be seeking a spot it had some trouble in finding. At noon, Captain Nemo himself came to work the ship's log. He spoke no word to me, but seemed gloomier than ever. What could sadden him thus? Was it his proximity to European shores? Had he some recollections of his abandoned country? If not, what did he feel? Remorse or regret? For a long while this thought haunted my mind, and I had a kind of presentiment that before long chance would betray the captain's secrets.

The next day, June 1, the Nautilus continued the same process. It was evidently seeking some particular spot in the ocean. Captain Nemo took the sun's altitude as he had done the day before. The sea was beautiful, the sky clear. About eight miles to the east, a large steam vessel could be discerned on the horizon. No flag fluttered from its mast, and I could not discover its nationality. Some minutes before the sun passed the meridian, Captain Nemo took his sextant, and watched with great attention. The perfect rest of the water greatly helped the operation. The Nautilus was motionless; it neither rolled nor pitched.

I was on the platform when the altitude was taken, and the captain pronounced these words-  $\mbox{"It}$  is here."

He turned and went below. Had he seen the vessel which was changing its course and seemed to be nearing us? I could not tell. I returned to the saloon. The panels closed, I heard the hissing of the water in the reservoirs. The Nautilus began to sink, following a vertical line, for its screw communicated no motion to it. Some minutes later it stopped at a depth of more than 420 fathoms, resting on the ground. The luminous ceiling was darkened, then the

panels were opened, and through the glass I saw the sea brilliantly illuminated by the rays of our lantern for at least half a mile round us.

I looked to the port side, and saw nothing but an immensity of quiet waters. But to starboard, on the bottom appeared a large protuberance which at once attracted my attention. One would have thought it a ruin buried under a coating of white shells, much resembling a covering of snow. Upon examining the mass attentively, I could recognize the ever thickening form of a vessel bare of its masts, which must have sunk. It certainly belonged to past times. This wreck, to be thus encrusted with the lime of the water, must already be able to count many years passed at the bottom of the ocean.

What was this vessel? Why did the Nautilus visit its tomb? Could it have been aught but a shipwreck which had drawn it under the water? I knew not what to think, when near me in a slow voice I heard Captain Nemo say:

"At one time this ship was called the Marseillais. It carried seventy-four guns, and was launched in 1762. In 1778, August 13, commanded by La Poype-Vertrieux, it fought boldly against the Preston. In 1779, on July 4, it was at the taking of Grenada, with the squadron of Admiral Estaing. In 1781, on September 5, it took part in the battle of Comte de Grasse, in Chesapeake Bay. In 1794, the French Republic changed its name. On April 6, in the same year, it joined the squadron of Villaret Joyeuse, at Brest, being entrusted with the escort of a cargo of corn coming from America, under the command of Admiral Van Stabel. On the eleventh and twelfth Prairial of the second year, this squadron fell in with an English vessel. Sir, today is the thirteenth Prairial, June 1, 1868. It is now seventy-four years ago, day for day on this very spot, in latitude 47 degrees 24', longitude 17 degrees 28', that this vessel after fighting heroically, losing its three masts, with the water in its hold, and the third of its crew disabled, preferred sinking with its 356 sailors to surrendering; and nailing its colors to the poop, disappeared under the waves to the cry of 'Long live the Republic!'"

"The Avenger!" I exclaimed.

"Yes, Sir, the Avenger! A good name!" muttered Captain Nemo, crossing his arms.

CHAPTER XXI.

### A HECATOMB.

THE WAY of describing this unlooked-for scene, the history of the patriot ship, told at first so coldly, and the emotion with which this strange man pronounced the last words, the name of the Avenger, the significance of which could not escape me, all impressed itself deeply on my mind. My eyes did not leave the captain; who, with his hand stretched out to sea, was watching with a glowing eye the glorious wreck. Perhaps I was never to know who he was, whence he came, or where he was going, but I saw the man move, and apart from the savant. It was no common misanthropy which had shut Captain Nemo and his companions within the Nautilus, but a hatred, either monstrous or sublime, which time could never weaken. Did this hatred still seek for vengeance? The future would soon teach me that. But the Nautilus was rising slowly to the surface of the sea, and the form of the Avenger disappeared by degrees from my sight. Soon a slight rolling told me that we were in the open air. At that moment a dull boom was heard. I looked at the captain. He did not move.

"Captain?" said I.

He did not answer. I left him and mounted the platform. Conseil and the Canadian were already there.

- "Where did that sound come from?" I asked.
- "It was a gunshot," replied Ned Land.
- I looked in the direction of the vessel I had already seen. It was nearing the Nautilus, and we could see that it was putting on steam. It was within six miles of us.

"What is that ship, Ned?"

"By its rigging, and the height of its lower masts," said the Canadian, "I bet she is a ship of war. May it reach us; and, if necessary, sink this cursed Nautilus."

"Friend Ned," replied Conseil, "what harm can it do to the Nautilus? Can it attack it beneath the waves? Can it cannonade us at the bottom of the sea?"

"Tell me, Ned," said I, "can you recognize what country she belongs to?"

The Canadian knitted his eyebrows, dropped his eyelids, and screwed up the corners of his eyes, and for a few moments fixed a piercing look upon the vessel.

"No, Sir," he replied; "I cannot tell what nation she belongs to, for she shows no colors. But I can declare she is a man-of-war, for a long pennant flutters from her mainmast."

For a quarter of an hour we watched the ship which was steaming toward us. I could not however believe that she could see the Nautilus from that distance; and still less, that she could know what this submarine engine was. Soon the Canadian informed me that she was a large armored two-decker ram. A thick black smoke was pouring from her two funnels. Her closely furled sails were stopped to her yards. She hoisted no flag at her mizzenpeak. The distance prevented us from distinguishing the colors of her pennant, which floated like a thin ribbon. She advanced rapidly. If Captain Nemo allowed her to approach, there was a chance of salvation for us.

"Sir," said Ned Land, "if that vessel passes within a mile of us, I shall throw myself into the sea, and I should advise you to do the same."

I did not reply to the Canadian's suggestion, but continued watching the ship. Whether English, French, American, or Russian, she would be sure to take us in if we could only reach her. Presently a white smoke burst from the fore part of the vessel; some seconds after the water, agitated by the fall of a heavy body, splashed the stern of the Nautilus, and shortly afterwards a loud explosion struck my ear.

"What! they are firing at us!" I exclaimed.

"But," I exclaimed, "surely they can see that there are men in the case?"

"It is, perhaps, because of that," replied Ned Land, looking at me.

A whole flood of light burst upon my mind. Doubtless they knew now how to believe the stories of the pretended monster. No doubt, on board the Abraham Lincoln, when the Canadian struck it with the harpoon, Commander Farragut had recognized in the supposed narwhal a submarine vessel, more dangerous than a supernatural cetacean. Yes, it must have been so; and on every sea they were now seeking this engine of destruction. Terrible indeed! if, as we supposed, Captain Nemo employed the Nautilus in works of vengeance. On the night when we were imprisoned in that cell, in the midst of the Indian Ocean, had he not attacked some vessel? The man buried in the coral cemetery, had he not been a victim to the shock caused by the Nautilus? Yes, I repeat it, it must be so. One part of the mysterious existence of Captain Nemo had been unveiled; and, if his identity had not been

recognized, at least, the nations united against him were no longer hunting a chimerical creature, but a man who had vowed a deadly hatred against them. All the formidable past rose before me. Instead of meeting friends on board the approaching ship, we could only expect pitiless enemies. But the shot rattled about us. Some of them struck the sea and ricocheted, losing themselves in the distance. But none touched the Nautilus. The vessel was not more than three miles from us. In spite of the serious cannonade, Captain Nemo did not appear on the platform; but, if one of the conical projectiles had struck the shell of the Nautilus, it would have been fatal. The Canadian then said, "Sir, we must do all we can to get out of this dilemma. Let us signal them. They will then, perhaps, understand that we are honest folks."

Ned Land took his handkerchief to wave in the air; but he had scarcely displayed it when he was struck down by an iron hand, and fell, in spite of his great strength, upon the deck.

"Fool!" exclaimed the captain, "do you wish to be pierced by the spur of the Nautilus before it is hurled at this vessel?"

Captain Nemo was terrible to hear; he was still more terrible to see. His face was deadly pale, with a spasm at his heart. For an instant it must have ceased to beat. His pupils were fearfully contracted. He did not speak, he roared, as, with his body thrown forward he wrung the Canadian's shoulders. Then, leaving him, and turning to the ship of war, whose shot was still raining around him, he exclaimed, with a powerful voice, "Ah, ship of an accursed nation, you know who I am! I do not want your colors to know you by! Look! and I will show you mine!"

And on the fore part of the platform Captain Nemo unfurled a black flag, similar to the one he had placed at the South Pole. At that moment a shot struck the shell of the Nautilus obliquely, without piercing it; and, rebounding near the captain, was lost in the sea. He shrugged his shoulders; and addressing me, said shortly, "Go down, you and your companions, go down!"

"Sir," I exclaimed, "are you going to attack this vessel?"

"Sir, I am going to sink it."

"You will not do that?"

"I shall do it," he replied coldly. "And I advise you not to judge me, Sir. Fate has shown you what you ought not to have seen. The attack has begun; go down."

"What is this vessel?"

"You do not know? Very well! so much the better! Its nationality to you, at least, will be a secret. Go down!"

We could but obey. About fifteen of the sailors surrounded the captain, looking with implacable hatred at the vessel nearing them. One could feel that the same desire of vengeance animated every soul. I went down at the moment another projectile struck the Nautilus, and I heard the captain exclaim:

"Strike, mad vessel! Shower your useless shot! And then, you will not escape the spur of the Nautilus. But it is not here that you shall perish! I would not have your ruins mingle with those of the Avenger!"

I reached my room. The captain and his second had remained on the platform. The screw was set in motion, and the Nautilus, moving with speed, was soon beyond the reach of the ship's guns. But the pursuit continued, and Captain Nemo contented himself with keeping his distance.

About four in the afternoon, being no longer able to contain my impatience, I went to the central staircase. The panel was open, and I ventured on to the platform. The captain was still walking up and down with an agitated step. He was looking at the ship, which was five or

six miles to leeward.

He was going round it like a wild beast, and drawing it eastward, he allowed them to pursue. But he did not attack. Perhaps he still hesitated? I wished to mediate once more. But I had scarcely spoken, when Captain Nemo imposed silence, saying:

"I am the law, and I am the judge! I am the oppressed, and there is the oppressor! Through him I have lost all that I loved, cherished, and venerated, - country, wife, children, father, and mother. I saw all perish! All that I hate is there! Say no more!"

I cast a last look at the man-of-war, which was putting on steam, and rejoined Ned and Conseil.

"We will fly!" I exclaimed.

"Good!" said Ned. "What is this vessel?"

"I do not know; but whatever it is, it will be sunk before night. In any case, it is better to perish with it, than be made accomplices in a retaliation, the justice of which we cannot judge."

"That is my opinion too," said Ned Land, coolly. "Let us wait for night."

Night arrived. Deep silence reigned on board. The compass showed that the Nautilus had not altered its course. It was on the surface, rolling slightly. My companions and I resolved to fly when the vessel should be near enough either to hear us or to see us; for the moon, which would be full in two or three days, shone brightly. Once on board the ship, if we could not prevent the blow which threatened it, we could, at least we would, do all that circumstances would allow. Several times I thought the Nautilus was preparing for attack; but Captain Nemo contented himself with allowing his adversary to approach, and then fled once more before it.

Part of the night passed without any incident. We watched the opportunity for action. We spoke little, for we were too much moved. Ned Land would have thrown himself into the sea, but I forced him to wait. According to my idea, the Nautilus would attack the ship at her water line, and then it would not only be possible, but easy to fly.

At three in the morning, full of uneasiness, I mounted the platform. Captain Nemo had not left it. He was standing at the fore part near his flag, which a slight breeze displayed above his head. He did not take his eyes from the vessel. The intensity of his look seemed to attract and fascinate and draw it onward more surely than if he had been towing it. The moon was then passing the meridian. Jupiter was rising in the east. Amid this peaceful scene of nature, sky and ocean rivaled each other in tranquility, the sea offering to the orbs of night the finest mirror they could ever have in which to reflect their image. As I thought of the deep calm of these elements, compared with all those passions brooding imperceptibly. within the Nautilus, I shuddered.

The vessel was within two miles of us. It was ever nearing that phosphorescent light which showed the presence of the Nautilus. I could see its green and red lights, and its white lantern hanging from the large foremast. An indistinct vibration quivered through its rigging, showing that the furnaces were heated to the uttermost. Sheaves of sparks and red ashes flew from the funnels, shining in the atmosphere like stars.

I remained thus until six in the morning, without Captain Nemo noticing me. The ship stood about a mile and a half from us, and with the first dawn of day the firing began afresh. The moment could not be far off when, the Nautilus attacking its adversary, my companions and myself should forever leave this man. I was preparing to go down to remind them, when the second mounted the platform, accompanied by several sailors. Captain Nemo either did not, or

would not, see them. Some steps were taken which might be called the signal for action. They were very simple. The iron balustrade around the platform was lowered, and the lantern and pilot cages were pushed within the shell until they were flush with the deck. The long surface of the steel cigar no longer offered a single point to check its maneuvers. I returned to the saloon. The Nautilus still floated; some streaks of light were filtering through the liquid beds. With the undulations of the waves, the windows were brightened by the red streaks of the rising sun, and this dreadful day of June 2 had dawned.

At five o'clock, the log showed that the speed of the Nautilus was slackening, and I knew that it was allowing them to draw nearer. Besides, the reports were heard more distinctly, and the projectiles, laboring through the ambient water, were distinguished with a strange hissing noise.

"My friends," said I, "the moment has come. One grasp of the hand, and may God protect us!" Ned Land was resolute, Conseil calm, myself so nervous that I knew not how to contain myself. We all passed into the library; but the moment I pushed the door opening on to the central staircase, I heard the upper panel close sharply. The Canadian rushed on to the stairs, but I stopped him. A well-known hissing noise told me that the water was running into the reservoirs, and in a few minutes the Nautilus was some yards beneath the surface of the waves. I understood the maneuver. It was too late to act. The Nautilus did not wish to strike at the impenetrable cuirass, but below the water line, where the metallic covering no longer protected it.

We were again imprisoned, unwilling witnesses of the dreadful drama that was preparing. We had scarcely time to reflect; taking refuge in my room, we looked at each other without speaking. A deep stupor had taken hold of my mind: thought seemed to stand still. I was in that painful state of expectation preceding a dreadful report. I waited, I listened, every sense was merged in that of hearing! The speed of the Nautilus was accelerated. It was preparing to rush. The whole ship trembled. Suddenly I screamed. I felt the shock, but comparatively light. I felt the penetrating power of the steel spur. I heard rattlings and scrapings. But the Nautilus, carried along by its propelling power, passed through the mass of the vessel, like a needle through sailcloth!

I could stand it no longer. Mad, out of my mind, I rushed from my room into the saloon. Captain Nemo was there, mute, gloomy, implacable; he was looking through the port panel. A large mass cast a shadow on the water; and that it might lose nothing of her agony, the Nautilus was going down into the abyss with her. Ten yards from me I saw the open shell through which the water was rushing with the noise of thunder, then the double line of guns and the netting. The bridge was covered with black agitated shadows.

The water was rising. The poor creatures were crowding the rattlings, clinging to the masts, struggling under the water. It was a human ant heap overtaken by the sea. Paralyzed, stiffened with anguish, my hair standing on end, with eyes wide open, panting, without breath, and without voice, I, too, was watching! An irresistible attraction glued me to the glass! Suddenly an explosion took place. The compressed air blew up her decks, as if the magazines had caught fire. Then the unfortunate vessel sank more rapidly. Her topmast, laden with victims, now appeared; then her spars, bending under the weight of men; and last of all, the top of her mainmast. Then the dark mass disappeared, and with it the dead crew, drawn down by the strong eddy.

I turned to Captain Nemo. That terrible avenger, a perfect archangel of hatred, was still looking. When all was over, he turned

to his room, opened the door, and entered. I followed him with, my eyes. On the end wall beneath his heroes, I saw the portrait of a woman still young, and two little children. Captain Nemo looked at them for some moments, stretched his arms toward them, and kneeling down burst into deep sobs.

CHAPTER XXII.

#### THE LAST WORDS OF CAPTAIN NEMO.

THE panels had closed on this dreadful vision, but light had not returned to the saloon: all was silence and darkness within the Nautilus. At wonderful speed, a hundred feet beneath the water, it was leaving this desolate spot. Whither was it going? to the north or south? Where was the man flying to after such dreadful retaliation? I had returned to my room, where Ned and Conseil had remained silent enough. I felt an insurmountable horror for Captain Nemo. Whatever he had suffered at the hands of these men, he had no right to punish thus. He had made me, if not an accomplice, at least a witness of his vengeance. At eleven the electric light reappeared. I passed into the saloon. It was deserted. I consulted the different instruments. The Nautilus was flying northward at the rate of twenty-five miles an hour, now on the surface, and now thirty feet below it. On taking the bearings by the chart, I saw that we were passing the mouth of the Manche, and that our course was hurrying us toward the northern seas at a frightful speed. That night we had crossed two hundred leagues of the Atlantic. The shadows fell, and the sea was covered with darkness until the rising of the moon. I went to my room, but could not sleep. I was troubled with dreadful nightmare. The horrible scene of destruction was continual before my eyes.

From that day, who could tell into what part of the North Atlantic basin the Nautilus would take us? Still, with unaccountable speed. Still in the midst of these northern fogs. Would it touch at Spitzbergen, or on the shores of Nova Zembla? Should we explore those unknown seas, the White Sea, the Sea of Kara, the Gulf of Obi, the Archipelago of Liarrov, and the unknown coast of Asia? I could not say. I could no longer judge of the time that was passing. The clocks had been stopped on board. It seemed, as in polar countries, that night and day no longer followed their regular course. I felt myself being drawn into that strange region where the foundered imagination of Edgar Poe roamed at will. Like the fabulous Gordon Pym, at every moment I expected to see "that veiled human figure, of larger proportions than those of any inhabitant of the earth, thrown across the cataract which defends the approach to the pole." I estimated (though, perhaps, I may be mistaken), - I estimated this adventurous course of the Nautilus to have lasted fifteen or twenty days. And I know not how much longer it might have lasted, had it not been for the catastrophe which ended this voyage.

Of Captain Nemo I saw nothing whatever now, nor of his second. Not a man of the crew was visible for an instant. The Nautilus was almost incessantly under water. When we came to the surface to renew the air, the panels opened and shut mechanically. There were no more marks on the planisphere. I knew not where we were. And the, Canadian, too, his strength and patience at an end, appeared no more. Conseil could not draw a word from him; and fearing that, in a dreadful fit of madness, he might kill himself, watched him with constant devotion. One morning (what date it was I could not say), I had fallen into a heavy sleep toward the early hours, a sleep both painful and unhealthy, when I suddenly awoke. Ned Land was leaning over me, saying, in a low voice, "We are going to fly."

- I sat up.
- "When shall we go?" I asked.
- "Tomorrow night. All inspection on board the Nautilus seems to have ceased. All appear to be stupefied. You will be ready, Sir?"
  - "Yes; where are we?"
- "In sight of land. I took the reckoning this morning in the fogtwenty miles to the east."
  - "What country is it?"
  - "I do not know; but whatever it is, we will take refuge there."
- "Yes, Ned, yes. We will fly tonight, even if the sea should swallow us up."
- "The sea is bad, the wind violent, but twenty miles in that light boat of the Nautilus does not frighten me. Unknown to the crew, I have been able to procure food and some bottles of water."
  - "I will follow you."
- "But," continued the Canadian, "if I am surprised, I will defend myself; I will force them to kill me."
  - "We will die together, friend Ned."

I had made up my mind to all. The Canadian left me. I reached the platform, on which I could with difficulty support myself against the shock of the waves. The sky was threatening; but, as land was in those thick brown shadows, we must fly. I returned to the saloon, fearing and yet hoping to see Captain Nemo, wishing and yet not wishing to see him. What could I have said to him? Could I hide the involuntary horror with which he inspired me? No. It was better that I should not meet him face to face; better to forget him. And yet how long seemed that day, the last that I should pass in the Nautilus. I remained alone. Ned Land and Conseil avoided speaking, for fear of betraying themselves. At six I dined, but I was not hungry; I forced myself to eat in spite of my disgust, that I might not weaken myself. At half-past six Ned Land came to my room, saying, "We shall not see each other again before our departure. At ten the moon will not be risen. We will profit by the darkness. Come to the boat; Conseil and I will wait for you."

The Canadian went out without giving me time to answer. Wishing to verify the course of the Nautilus, I went to the saloon. We were running N.N.E. at frightful speed, and more than fifty yards deep. I cast a last look on these wonders of Nature, on the riches of art heaped up in this museum, upon the unrivaled collection destined to perish at the bottom of the sea, with him who had formed it. I wished to fix an indelible impression of it in my mind. I remained an hour thus, bathed in the light of that luminous ceiling, and passing in review those treasures shining under their glasses. Then I returned to my room.

I dressed in strong sea clothing. I collected notes, placing them carefully about me. My heart beat loudly. I could not check its pulsations. Certainly my trouble and agitation would have betrayed me to Captain Nemo's eyes. What was he doing at this moment? I listened at the door of his room. I heard steps. Captain Nemo was there. He had not gone to rest. At every moment I expected to see him appear and ask me why I wished to fly. I was constantly on the alert. My imagination magnified everything. The impression became at last so poignant, that I asked myself if it would not be better to go to the captain's room, see him face to face, and brave him with look and gesture.

It was the inspiration of a madman; fortunately I resisted the desire, and stretched myself on my bed to quiet my bodily agitation. My nerves were somewhat calmer, but in my excited brain I saw over again all my existence on board the Nautilus; every incident, either happy or unfortunate, which had happened since my disappearance from

the Abraham Lincoln- the submarine hunt, the Torres Straits, the savages of Papua, the running ashore, the coral cemetery, the passage of Suez, the island of Santorin, the Cretin diver, Vigo Bay, Atlantis, the iceberg, the South Pole, the imprisonment in the ice, the fight among the poulps, the storm in the Gulf Stream, the Avenger, and the horrible scene of the vessel sunk with all her crew. All these events passed before my eyes like scenes in a drama. Then Captain Nemo seemed to grow enormously, his features to assume superhuman proportions. He was no longer my equal, but a man of the waters, the genie of the sea.

It was then half-past nine. I held my head between my hands to keep it from bursting. I closed my eyes; I would not think any longer. There was another half hour to wait, another half hour of a nightmare, which might drive me mad.

At that moment I heard the distant strains of the organ, a sad harmony to an undefinable chaunt, the wail of a soul longing to break these earthly bonds. I listened with every sense, scarcely breathing; plunged, like Captain Nemo, in that musical ecstasy which was drawing him in spirit to the end of life.

Then a sudden thought terrified me. Captain Nemo had left his room. He was in the saloon, which I must cross to fly. There I should meet him for the last time. He would see me, perhaps speak to me. A gesture of his might destroy me, a single word chain me on board.

But ten was about to strike. The moment had come for me to leave my room, and join my companions.

I must not hesitate, even if Captain Nemo himself should rise before me. I opened my door carefully; and even then, as it turned on its hinges, it seemed to me to make a dreadful noise. Perhaps it only existed in my own imagination.

I crept along the dark stairs of the Nautilus, stopping at each step to check the beating of my heart. I reached the door of the saloon, and opened it gently. It was plunged in profound darkness. The strains of the organ sounded faintly. Captain Nemo was there. He did not see me. In the full light I do not think he would have noticed me, so entirely was he absorbed in the ecstasy.

I crept along the carpet, avoiding the slightest sound which might betray my presence. I was at least five minutes reaching the door, at the opposite side, opening into the library.

I was going to open it, when a sigh from Captain Nemo nailed me to the spot. I knew that he was rising. I could even see him, for the light from the library came through to the saloon. He came toward me silently, with his arms crossed, gliding like a specter rather than walking. His breast was swelling with sobs; and I heard him murmur these words (the last which ever struck my ear):

"Almighty God! enough! enough!"

Was it a confession of remorse which thus escaped from this man's conscience?

In desperation, I rushed through the library, mounted the central staircase, and following the upper flight reached the boat. I crept through the opening, which had already admitted my two companions.

"Let us go! let us go!" I exclaimed.

"Directly!" replied the Canadian.

The orifice in the plates of the Nautilus was first closed, and fastened down by means of a false key, with which Ned Land had provided himself; the opening in the boat was also closed. The Canadian began to loosen the bolts which still held us to the submarine boat.

Suddenly a noise within was heard. Voices were answering each

other loudly. What was the matter? Had they discovered our flight? I felt Ned Land slipping a dagger into my hand.

"Yes," I murmured, "we know how to die!"

The Canadian had stopped in his work. But one word many times repeated, a dreadful word, revealed the cause of the agitation spreading on board the Nautilus. It was not we the crew were looking after!

"The maelstrom! the maelstrom!" I exclaimed.

The maelstrom! Could a more dreadful word in a more dreadful situation have sounded in our ears! We were then upon the dangerous coast of Norway. Was the Nautilus being drawn into this gulf at the moment our boat was going to leave its sides? We knew that at the. tide the pent-up waters between the islands of Ferroe and Loffoden rush with irresistible violence, forming a whirlpool from which no vessel ever escapes. From every point of the horizon enormous waves were meeting, form a gulf justly called the "Navel of the Ocean," whose power of attraction extends to a distance of twelve miles. There, not only vessels, but whales are sacrificed, as well as white bears from the northern regions.

It is thither that the Nautilus, voluntarily or involuntarily, had been run by the Captain.

It was describing a spiral, the circumference of which was lessening by degrees, and the boat, which was still fastened to its side, was carried along with giddy speed. I felt that sickly giddiness which arises from long-continued whirling round.

We were in dread. Our horror was at its height, circulation had stopped, all nervous influence was annihilated, and we were covered with cold sweat, like a sweat of agony! And what noise around our frail bark! What roarings repeated by the echo miles away! What an uproar was that of the waters broken on the sharp rocks at the bottom, where the hardest bodies are crushed, and trees worn away, "with all the fur rubbed off," according to the Norwegian phrase!

What a situation to be in! We rocked frightfully. The Nautilus defended itself like a human being. Its steel muscles cracked. Sometimes it seemed to stand upright, and we with it!

"We must hold on," said Ned, "and look after the bolts. We may still be saved if we stick to the Nautilus"-

He had not finished the words, when we heard a crashing noise, the bolts gave way, and the boat, torn from its groove, was hurled like a stone from a sling into the midst of the whirlpool.

My head struck on a piece of iron, and with the violent shock I lost all consciousness.

CHAPTER XXIII.

# CONCLUSION.

THUS ends the voyage under the seas. What passed during that night- how the boat escaped from the eddies of the maelstrom- how Ned Land, Conseil, and myself ever came out of the gulf, I cannot tell.

But when I returned to consciousness, I was lying in a fisherman's hut, on the Loffoden Isles. My two companions, safe and sound, were near me holding my hands. We embraced each other heartily.

At that moment we could not think of returning to France. The means of communication between the north of Norway and the south are rare. And I am therefore obliged to wait for the steamboat running monthly from Cape North.

And among the worthy people who have so kindly received us, I revise my record of these adventures once more. Not a fact has been omitted, not a detail exaggerated. It is a faithful narrative of

this incredible expedition in an element inaccessible to man, but to which Progress will one day open a road.

Shall I be believed? I do not know. And it matters little, after all. What I now affirm is, that I have a right to speak of these seas, under which, in less than ten months, I have crossed 20,000 leagues in that submarine tour of the world, which has revealed so many wonders.

But what has become of the Nautilus? Did it resist the pressure of the maelstrom? Does Captain Nemo still live? And does he still follow under the ocean those frightful retaliations? Or, did he stop after that last hecatomb?

Will the waves one day carry to him this manuscript containing the history of his life? Shall I ever know the name of this man? Will the missing vessel tell us by its nationality that of Captain Nemo?

I hope so. And I also hope that his powerful vessel has conquered the sea at its most terrible gulf, and that the Nautilus has survived where so many other vessels have been lost! If it be so- if Captain Nemo still inhabits the ocean, his adopted country, may hatred be appeased in that savage heart! May the contemplation of so many wonders extinguish forever the spirit of vengeance! May the judge disappear, and the philosopher continue the peaceful exploration of the sea! If his destiny be strange, it is also sublime. Have I not understood it myself? Have I not lived ten months of this unnatural life? And to the question asked by Ecclesiastes 3,000 years ago, "That which is far off and exceeding deep, who can find it out?" two men alone of all now living have the right to give an answer-

CAPTAIN NEMO AND MYSELF.

THE END

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