

CHAPTER XXXI.

PREPARATIONS FOR A VOYAGE OF DISCOVERY

The next morning I awoke feeling perfectly well. I thought a bathe would do me good, and I went to plunge for a few minutes into the waters of this mediterranean sea, for assuredly it better deserved this name than any other sea.

I came back to breakfast with a good appetite. Hans was a good caterer for our little household; he had water and fire at his disposal, so that he was able to vary our bill of fare now and then. For dessert he gave us a few cups of coffee, and never was coffee so delicious.

"Now," said my uncle, "now is the time for high tide, and we must not lose the opportunity to study this phenomenon."

"What! the tide!" I cried. "Can the influence of the sun and moon be felt down here?"

"Why not? Are not all bodies subject throughout their mass to the power of universal attraction? This mass of water cannot escape the general law. And in spite of the heavy atmospheric pressure on the surface, you will see it rise like the Atlantic itself."

At the same moment we reached the sand on the shore, and the waves were by slow degrees encroaching on the shore.

"Here is the tide rising," I cried.

"Yes, Axel; and judging by these ridges of foam, you may observe that the sea will rise about twelve feet."

"This is wonderful," I said.

"No; it is quite natural."

"You may say so, uncle; but to me it is most extraordinary, and I can hardly believe my eyes. Who would ever have imagined, under this terrestrial crust, an ocean with ebbing and flowing tides, with winds and storms?"

"Well," replied my uncle, "is there any scientific reason against it?"

"No; I see none, as soon as the theory of central heat is given up."

"So then, thus far," he answered, "the theory of Sir Humphry Davy is confirmed."

"Evidently it is; and now there is no reason why there should not be seas and continents in the interior of the earth."

"No doubt," said my uncle; "and inhabited too."

"To be sure," said I; "and why should not these waters yield to us fishes of unknown species?"

"At any rate," he replied, "we have not seen any yet."

"Well, let us make some lines, and see if the bait will draw here as it does in sublunary regions."

"We will try, Axel, for we must penetrate all secrets of these newly discovered regions."

"But where are we, uncle? for I have not yet asked you that question, and your instruments must be able to furnish the answer."

"Horizontally, three hundred and fifty leagues from Iceland."

"So much as that?"

"I am sure of not being a mile out of my reckoning."

"And does the compass still show south-east?"

"Yes; with a westerly deviation of nineteen degrees forty-five

minutes, just as above ground. As for its dip, a curious fact is coming to light, which I have observed carefully: that the needle, instead of dipping towards the pole as in the northern hemisphere, on the contrary, rises from it."

"Would you then conclude," I said, "that the magnetic pole is somewhere between the surface of the globe and the point where we are?"

"Exactly so; and it is likely enough that if we were to reach the spot beneath the polar regions, about that seventy-first degree where Sir James Ross has discovered the magnetic pole to be situated, we should see the needle point straight up. Therefore that mysterious centre of attraction is at no great depth."

I remarked: "It is so; and here is a fact which science has scarcely suspected."

"Science, my lad, has been built upon many errors; but they are errors which it was good to fall into, for they led to the truth."

"What depth have we now reached?"

"We are thirty-five leagues below the surface."

"So," I said, examining the map, "the Highlands of Scotland are over

our heads, and the Grampians are raising their rugged summits above us."

"Yes," answered the Professor laughing. "It is rather a heavy weight to bear, but a solid arch spans over our heads. The great Architect has built it of the best materials; and never could man have given it so wide a stretch. What are the finest arches of bridges and the arcades of cathedrals, compared with this far reaching vault, with a radius of three leagues, beneath which a wide and tempest-tossed ocean may flow at its ease?"

"Oh, I am not afraid that it will fall down upon my head. But now what are your plans? Are you not thinking of returning to the surface now?"

"Return! no, indeed! We will continue our journey, everything having gone on well so far."

"But how are we to get down below this liquid surface?"

"Oh, I am not going to dive head foremost. But if all oceans are properly speaking but lakes, since they are encompassed by land, of course this internal sea will be surrounded by a coast of granite, and on the opposite shores we shall find fresh passages opening."

"How long do you suppose this sea to be?"

"Thirty or forty leagues; so that we have no time to lose, and we shall set sail to-morrow."

I looked about for a ship.

"Set sail, shall we? But I should like to see my boat first."

"It will not be a boat at all, but a good, well-made raft."

"Why," I said, "a raft would be just as hard to make as a boat, and I don't see--"

"I know you don't see; but you might hear if you would listen. Don't you hear the hammer at work? Hans is already busy at it."

"What, has he already felled the trees?"

"Oh, the trees were already down. Come, and you will see for yourself."

After half an hour's walking, on the other side of the promontory which formed the little natural harbour, I perceived Hans at work. In a few more steps I was at his side. To my great surprise a half-finished raft was already lying on the sand, made of a peculiar kind of wood, and a great number of planks, straight and bent, and of

frames, were covering the ground, enough almost for a little fleet.

"Uncle, what wood is this?" I cried.

"It is fir, pine, or birch, and other northern coniferae, mineralised by the action of the sea. It is called surturbrand, a variety of brown coal or lignite, found chiefly in Iceland."

"But surely, then, like other fossil wood, it must be as hard as stone, and cannot float?"

"Sometimes that may happen; some of these woods become true anthracites; but others, such as this, have only gone through the first stage of fossil transformation. Just look," added my uncle, throwing into the sea one of those precious waifs.

The bit of wood, after disappearing, returned to the surface and oscillated to and fro with the waves.

"Are you convinced?" said my uncle.

"I am quite convinced, although it is incredible!"

By next evening, thanks to the industry and skill of our guide, the raft was made. It was ten feet by five; the planks of surturbrand, braced strongly together with cords, presented an even surface, and

when launched this improvised vessel floated easily upon the waves of the Liedenbrock Sea.