## LAUNCHING THE RAFT

On the morning of the next day, to my great surprise, I awoke completely restored. I thought a bath would be delightful after my long illness and sufferings. So, soon after rising, I went and plunged into the waters of this new Mediterranean. The bath was cool, fresh and invigorating.

I came back to breakfast with an excellent appetite. Hans, our worthy guide, thoroughly understood how to cook such eatables as we were able to provide; he had both fire and water at discretion, so that he was enabled slightly to vary the weary monotony of our ordinary repast.

Our morning meal was like a capital English breakfast, with coffee by way of a windup. And never had this delicious beverage been so welcome and refreshing.

My uncle had sufficient regard for my state of health not to interrupt me in the enjoyment of the meal, but he was evidently delighted when I had finished.

"Now then," said he, "come with me. It is the height of the tide, and I am anxious to study its curious phenomena."

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"What!"' I cried, rising in astonishment, "did you say the tide, Uncle?"

"Certainly I did."

"You do not mean to say," I replied, in a tone of respectful doubt, "that the influence of the sun and moon is felt here below."

"And pray why not? Are not all bodies influenced by the law of universal attraction? Why should this vast underground sea be exempt from the general law, the rule of the universe? Besides, there is nothing like that which is proved and demonstrated. Despite the great atmospheric pressure down here, you will notice that this inland sea rises and falls with as much regularity as the Atlantic itself."

As my uncle spoke, we reached the sandy shore, and saw and heard the waves breaking monotonously on the beach. They were evidently rising.

"This is truly the flood," I cried, looking at the water at my feet.

"Yes, my excellent nephew," replied my uncle, rubbing his hands with the gusto of a philosopher, "and you see by these several streaks of foam that the tide rises at least ten or twelve feet."

"It is indeed marvelous."

"By no means," he responded; "on the contrary, it is quite natural."

"It may appear so in your eyes, my dear uncle," was my reply, "but all the phenomena of the place appear to me to partake of the marvelous. It is almost impossible to believe that which I see. Who in his wildest dreams could have imagined that, beneath the crust of our earth, there could exist a real ocean, with ebbing and flowing tides, with its changes of winds, and even its storms! I for one should have laughed the suggestion to scorn."

"But, Harry, my boy, why not?" inquired my uncle, with a pitying smile; "is there any physical reason in opposition to it?"

"Well, if we give up the great theory of the central heat of the earth, I certainly can offer no reasons why anything should be looked upon as impossible."

"Then you will own," he added, "that the system of Sir Humphry Davy is wholly justified by what we have seen?"

"I allow that it is--and that point once granted, I certainly can see no reason for doubting the existence of seas and other wonders, even countries, in the interior of the globe."

"That is so--but of course these varied countries are uninhabited?"

"Well, I grant that it is more likely than not: still, I do not see why

this sea should not have given shelter to some species of unknown fish."

"Hitherto we have not discovered any, and the probabilities are rather against our ever doing so," observed the Professor.

I was losing my skepticism in the presence of these wonders.

"Well, I am determined to solve the question. It is my intention to try my luck with my fishing line and hook."

"Certainly; make the experiment," said my uncle, pleased with my enthusiasm. "While we are about it, it will certainly be only proper to discover all the secrets of this extraordinary region."

"But, after all, where are we now?" I asked; "all this time I have quite forgotten to ask you a question, which, doubtless, your philosophical instruments have long since answered."

"Well," replied the Professor, "examining the situation from only one point of view, we are now distant three hundred and fifty leagues from Iceland."

"So much?" was my exclamation.

"I have gone over the matter several times, and am sure not to have made a mistake of five hundred yards," replied my uncle positively. "And as to the direction--are we still going to the southeast?"

"Yes, with a western declination[2] of nineteen degrees, forty-two minutes, just as it is above. As for the inclination[3] I have discovered a very curious fact."

[2] The declination is the variation of the needle from the true meridian of a place.

[3] Inclination is the dip of the magnetic needle with a tendency to incline towards the earth.

"What may that be, Uncle? Your information interests me."

"Why, that the needle instead of dipping towards the pole as it does on earth, in the northern hemisphere, has an upward tendency."

"This proves," I cried, "that the great point of magnetic attraction lies somewhere between the surface of the earth and the spot we have succeeded in reaching."

"Exactly, my observant nephew," exclaimed my uncle, elated and delighted, "and it is quite probable that if we succeed in getting toward the polar regions--somewhere near the seventy-third degree of latitude, where Sir James Ross discovered the magnetic pole, we shall behold the needle point directly upward. We have therefore discovered by analogy, that this great centre of attraction is not situated at a very great depth."

"Well," said I, rather surprised, "this discovery will astonish experimental philosophers. It was never suspected."

"Science, great, mighty and in the end unerring," replied my uncle dogmatically, "science has fallen into many errors--errors which have been fortunate and useful rather than otherwise, for they have been the steppingstones to truth."

After some further discussion, I turned to another matter.

"Have you any idea of the depth we have reached?"

"We are now," continued the Professor, "exactly thirty-five leagues--above a hundred miles--down into the interior of the earth."

"So," said I, after measuring the distance on the map, "we are now beneath the Scottish Highlands, and have over our heads the lofty Grampian Hills."

"You are quite right," said the Professor, laughing; "it sounds very alarming, the weight being heavy--but the vault which supports this vast mass of earth and rock is solid and safe; the mighty Architect of the Universe has constructed it of solid materials. Man, even in his highest flights of vivid and poetic imagination, never thought of such things! What are the finest arches of our bridges, what the vaulted roofs of our cathedrals, to that mighty dome above us, and beneath which floats an ocean with its storms and calms and tides!"

"I admire it all as much as you can, Uncle, and have no fear that our granite sky will fall upon our heads. But now that we have discussed matters of science and discovery, what are your future intentions? Are you not thinking of getting back to the surface of our beautiful earth?"

This was said more as a feeler than with any hope of success.

"Go back, nephew," cried my uncle in a tone of alarm, "you are not surely thinking of anything so absurd or cowardly. No, my intention is to advance and continue our journey. We have as yet been singularly fortunate, and henceforth I hope we shall be more so."

"But," said I, "how are we to cross yonder liquid plain?"

"It is not my intention to leap into it head foremost, or even to swim across it, like Leander over the Hellespont. But as oceans are, after all, only great lakes, inasmuch as they are surrounded by land, so does it stand to reason, that this central sea is circumscribed by granite surroundings." "Doubtless," was my natural reply.

"Well, then, do you not think that when once we reach the other end, we shall find some means of continuing our journey?"

"Probably, but what extent do you allow to this internal ocean?"

"Well, I should fancy it to extend about forty or fifty leagues--more or less."

"But even supposing this approximation to be a correct one--what then?" I asked.

"My dear boy, we have no time for further discussion. We shall embark tomorrow."

I looked around with surprise and incredulity. I could see nothing in the shape of boat or vessel.

"What!" I cried, "we are about to launch out upon an unknown sea; and where, if I may ask, is the vessel to carry us?"

"Well, my dear boy, it will not be exactly what you would call a vessel. For the present we must be content with a good and solid raft."

"A raft," I cried, incredulously, "but down here a raft is as impossible

of construction as a vessel--and I am at a loss to imagine--"

"My good Harry--if you were to listen instead of talking so much, you would hear," said my uncle, waxing a little impatient.

"I should hear?"

"Yes--certain knocks with the hammer, which Hans is now employing to make the raft. He has been at work for many hours."

"Making a raft?"

"Yes."

"But where has he found trees suitable for such a construction?"

"He found the trees all ready to his hand. Come, and you shall see our excellent guide at work."

More and more amazed at what I heard and saw, I followed my uncle like one in a dream.

After a walk of about a quarter of an hour, I saw Hans at work on the other side of the promontory which formed our natural port. A few minutes more and I was beside him. To my great surprise, on the sandy shore lay a half-finished raft. It was made from beams of a very peculiar wood, and a great number of limbs, joints, boughs, and pieces lay about, sufficient to have constructed a fleet of ships and boats.

I turned to my uncle, silent with astonishment and awe.

"Where did all this wood come from?" I cried; "what wood is it?"

"Well, there is pinewood, fir, and the palms of the northern regions, mineralized by the action of the sea," he replied, sententiously.

"Can it be possible?"

"Yes," said the learned Professor, "what you see is called fossil wood."

"But then," cried I, after reflecting for a moment, "like the lignites, it must be as hard and as heavy as iron, and therefore will certainly not float."

"Sometimes that is the case. Many of these woods have become true anthracites, but others again, like those you see before you, have only undergone one phase of fossil transformation. But there is no proof like demonstration," added my uncle, picking one or two of these precious waifs and casting them into the sea.

The piece of wood, after having disappeared for a moment, came to the surface, and floated about with the oscillation produced by wind and

tide.

"Are you convinced?" said my uncle, with a self-satisfied smile.

"I am convinced," I cried, "that what I see is incredible."

The fact was that my journey into the interior of the earth was rapidly changing all preconceived notions, and day by day preparing me for the marvelous.

I should not have been surprised to have seen a fleet of native canoes afloat upon that silent sea.

The very next evening, thanks to the industry and ability of Hans, the raft was finished. It was about ten feet long and five feet wide. The beams bound together with stout ropes, were solid and firm, and once launched by our united efforts, the improvised vessel floated tranquilly upon the waters of what the Professor had well named the Central Sea.