

TWENTY THOUSAND LEAGUES UNDER THE SEA

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Twenty Thousand Leagues Under the Sea

PART I

CHAPTER I

A SHIFTING REEF

THE year 1866 was signalized by a remarkable incident, a mysterious and inexplicable phenomenon, which doubtless no one has yet forgotten. Not to mention rumors which agitated the maritime population, and excited the public mind, even in the interior of continents, seafaring men were particularly excited. Merchants, common sailors, captains of vessels, skippers, both of Europe and America, naval officers of all countries, and the governments of several states on the two continents, were deeply interested in the matter.

For some time past, vessels had been met by "an enormous thing," a long object spindle-shaped, occasionally phosphorescent, and infinitely larger and more rapid in its movements than a whale.

The facts relating to this apparition (entered in various log-books) agreed in most respects as to the shape of the object or creature in question, the untiring rapidity of its movements, its surprising power of locomotion, and the peculiar life with

which it seemed endowed. If it was a cetacean, it surpassed in size all those hitherto classified in science. Taking into consideration the mean of observations made at divers times—rejecting the timid estimate of those who assigned to this object a length of two hundred feet, equally with the exaggerated opinions which set it down as a mile in width and three in length—we might fairly conclude that this mysterious being surpassed greatly all dimensions admitted by the ichthyologists of the day, if it existed at all. And that it did exist was an undeniable fact; and, with that tendency which disposes the human mind in favor of the marvelous, we can understand the excitement produced in the entire world by this supernatural apparition. As to classing it in the list of fables, the idea was out of the question.

On the 20th of July, 1866, the steamer Governor Higginson, of the Calcutta and Burnach Steam Navigation Company, had met this moving mass five miles off the east coast of Australia. Captain Baker thought at first that he was in the presence of an unknown sand-bank; he even prepared to determine its exact position, when two columns of water, projected by the inexplicable object, shot with a hissing noise a hundred and fifty feet up into the air. Now, unless the sand-bank had been submitted to the intermittent eruption of a geyser, the Governor Higginson had to do neither more nor less than with an aquatic mammal, unknown till then, which threw up from its blow-holes columns of water mixed with air and vapor.

Similar facts were observed on the 23d of July, in the same year, in the Pacific Ocean, by the Columbus, of the West India and Pacific Steam Navigation Company. But this extraordinary cetaceous creature could transport itself from one place to another

with surprising velocity; as, in an interval of three days, the Governor Higginson and the Columbus had observed it at two different points of the chart, separated by a distance of more than seven hundred nautical leagues.

Fifteen days later, two thousand miles further off, the Helvetia, of the Compagnie-Nationale, and the Shannon, of the Royal Mail Steamship Company, sailing to windward in that portion of the Atlantic lying between the United States and Europe, respectively signaled the monster to each other in $42^{\circ} 15'$ N. lat. and $60^{\circ} 35'$ W. long. In these simultaneous observations, they thought themselves justified in estimating the minimum length of the mammal at more than three hundred and fifty feet, as the Shannon and Helvetia were of smaller dimensions than it, though they measured three hundred feet over all.

Now the largest whales, those which frequent those parts of the sea round the Aleutian, Kulammak, and Umgullich Islands, have never exceeded the length of sixty yards, if they attain that.

These reports arriving one after the other, with fresh observations made on board the transatlantic ship Pereira, a collision which occurred between the Etna of the Inman line and the monster, a *proces verbal* directed by the officers of the French frigate Normandie, a very accurate survey made by the staff of Commodore Fitz-James on board the Lord Clyde greatly influenced public opinion. Light-thinking people jested upon the phenomenon, but grave, practical countries, such as England, America, and Germany, treated the matter more seriously.

In every place of great resort the monster was the fashion. They sang of it in the cafés, ridiculed it in the papers, and represented it on the stage. All kinds of stories were circulated regarding it.

There appeared in the papers caricatures of every gigantic and imaginary creature, from the white whale, the terrible "Moby Dick" of hyperborean regions, to the immense kraken whose tentacles could entangle a ship of five hundred tons, and hurry it into the abyss of the ocean. The legends of ancient times were even resuscitated, and the opinions of Aristotle and Pliny revived, who admitted the existence of these monsters, as well as the Norwegian tales of Bishop Pontoppidan, the accounts of Paul Heggede, and, last of all, the reports of Mr. Harrington (whose good faith no one could suspect), who affirmed that, being on board the *Castillan*, in 1857, he had seen this enormous serpent, which had never until that time frequented any other seas but those of the ancient "Constitutionel."

Then burst forth the interminable controversy between the credulous and the incredulous in the societies of savants and scientific journals. "The question of the monster" inflamed all minds. Editors of scientific journals, quarreling with believers in the supernatural, spilled seas of ink during this memorable campaign, some even drawing blood; for, from the sea-serpent, they came to direct personalities.

For six months war was waged with various fortune in the leading articles of the Geographical Institution of Brazil, the Royal Academy of Science of Berlin, the British Association, the Smithsonian Institution of Washington, in the discussions of the "Indian Archipelago," of the *Cosmos* of the Abbé Moigno, in the *Mittheilungen* of Petermann, in the scientific chronicles of the great journals of France and other countries. The cheaper journals replied keenly and with inexhaustible zest. These satirical writers parodied a remark of Linnæus, quoted by the adversaries of the monster, maintaining that

"nature did not make fools," and adjured their contemporaries not to give the lie to nature, by admitting the existence of krakens, sea-serpents, "Moby Dicks," and other lucubrations of delirious sailors. At length an article in a well-known satirical journal by a favorite contributor, the chief of the staff, settled the monster, like Hippolytus, giving it the death-blow amid a universal burst of laughter. Wit had conquered science.

During the first months of the year 1867, the question seemed buried never to revive, when new facts were brought before the public. It was then no longer a scientific problem to be solved, but a real danger seriously to be avoided. The question took quite another shape. The monster became a small island, a rock, a reef, but a reef of indefinite and shifting proportions.

On the 5th of March, 1867, the Moravian, of the Montreal Ocean Company, finding herself during the night in $27^{\circ} 30'$ lat. and $72^{\circ} 15'$ long., struck on her starboard quarter a rock, marked in no chart for that part of the sea. Under the combined efforts of the wind and its four hundred horse-power, it was going at the rate of thirteen knots. Had it not been for the superior strength of the hull of the Moravian, she would have been broken by the shock, and gone down with the 237 passengers she was bringing home from Canada.

The accident happened about five o'clock in the morning, as the day was breaking. The officers of the quarterdeck hurried to the after-part of the vessel. They examined the sea with the most scrupulous attention. They saw nothing but a strong eddy about three cables' length distant, as if the surface had been violently agitated. The bearings of the place were taken exactly, and the Moravian continued its route without apparent dam-

age. Had it struck on a submerged rock, or on an enormous wreck? They could not tell; but on examination of the ship's bottom when undergoing repairs, it was found that part of her keel was broken.

This fact, so grave in itself, might perhaps have been forgotten like many others, if, three weeks after, it had not been re-enacted under similar circumstances. But, thanks to the nationality of the victim of the shock, thanks to the reputation of the company to which the vessel belonged, the circumstance became extensively circulated.

The 13th of April, 1867, the sea being beautiful, the breeze favorable, the *Scotia*, of the Cunard Company's line, found herself in $15^{\circ} 12'$ long. and $45^{\circ} 37'$ lat. She was going at the speed of thirteen knots and a half.

At seventeen minutes past four in the afternoon, while the passengers were assembled at lunch in the great saloon, a slight shock was felt on the hull of the *Scotia*, on her quarter, a little aft of the port paddle.

The *Scotia* had not struck, but she had been struck, and seemingly by something rather sharp and penetrating than blunt. The shock had been so light that no one had been alarmed, had it not been for the shouts of the carpenter's watch, who rushed on to the bridge, exclaiming, "We are sinking! we are sinking!" At first the passengers were much frightened, but Captain Anderson hastened to reassure them. The danger could not be imminent. The *Scotia*, divided into seven compartments by strong partitions, could brave with impunity any leak. Captain Anderson went down immediately into the hold. He found that the sea was pouring into the fifth compartment; and the rapidity of the influx proved that the force of the water was considerable. For-

tunately this compartment did not hold the boilers, or the fires would have been immediately extinguished. Captain Anderson ordered the engines to be stopped at once, and one of the men went down to ascertain the extent of the injury. Some minutes afterward they discovered the existence of a large hole, of two yards in diameter, in the ship's bottom. Such a leak could not be stopped; and the *Scotia*, her paddles half submerged, was obliged to continue her course. She was then three hundred miles from Cape Clear, and after three days' delay, which caused great uneasiness in Liverpool, she entered the basin of the company.

The engineers visited the *Scotia*, which was put in dry-dock. They could scarcely believe it possible; at two yards and a half below water-mark was a regular rent, in the form of an isosceles triangle. The broken place in the iron plates was so perfectly defined that it could not have been more neatly done by a punch. It was clear, then, that the instrument producing the perforation was not of a common stamp; and after having been driven with prodigious strength, and piercing an iron plate one and three-eighth inches thick, had withdrawn itself by a retrograde motion truly inexplicable.

Such was the last fact, which resulted in exciting once more the torrent of public opinion. From this moment all unlucky casualties which could not be otherwise accounted for were put down to the monster.

Upon this imaginary creature rested the responsibility of all these shipwrecks, which unfortunately were considerable; for of three thousand ships whose loss was annually recorded at Lloyds', the number of sailing and steam ships supposed to be totally lost, from the absence of all news, amounted to not less than two hundred.

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Now, it was the “monster” who, justly or unjustly, was accused of their disappearance, and, thanks to it, communication between the different continents became more and more dangerous. The public demanded peremptorily that the seas should at any price be relieved from this formidable cetacean.

CHAPTER II

PRO AND CON

AT the period when these events took place, I had just returned from a scientific research in the disagreeable territory of Nebraska, in the United States. In virtue of my office as Assistant Professor in the Museum of Natural History in Paris, the French government had attached me to that expedition. After six months in Nebraska, I arrived in New York toward the end of March, laden with precious collection. My departure for France was fixed for the first days in May. Meanwhile, I was occupying myself in classifying my mineralogical, botanical, and zoölogical riches, when the accident happened to the Scotia.

I was perfectly up in the subject which was the question of the day. How could I be otherwise? I had read and reread all the American and European papers without being any nearer a conclusion. This mystery puzzled me. Under the impossibility of forming an opinion, I jumped from one extreme to the other. That there really was something could not be doubted, and the incredulous were invited to put their finger on the wound of the Scotia.

On my arrival at New York, the question was at its height. The hypothesis of the floating island, and the unapproachable sand-bank, supported by minds little competent to form a judgment, was abandoned. And, indeed, unless this shoal had a machine in its stomach, how could it change its position with such astonishing rapidity?

From the same cause, the idea of a floating hull of an enormous wreck was given up.

There remained then only two possible solutions of the question, which created two distinct parties: on one side, those who were for a monster of colossal strength; on the other, those who were for a submarine vessel of enormous motive power.

But this last hypothesis, plausible as it was, could not stand against inquiries made in both worlds. That a private gentleman should have such a machine at his command was not likely. Where, when, and how was it built? and how could its construction have been kept secret? Certainly a government might possess such a destructive machine. And in these disastrous times, when the ingenuity of man has multiplied the power or weapons of war, it was possible that, without the knowledge of others, a state might try to work such a formidable engine. After the chassepots came the torpedoes, after the torpedoes the submarine rams, then—the reaction. At least, I hope so.

But the hypothesis of a war-machine fell before the declaration of governments. As public interest was in question, and transatlantic communications suffered, their veracity could not be doubted. But, how admit that the construction of this submarine boat had escaped the public eye? For a private gentleman to keep the secret under such circumstances would be very difficult, and for a state whose every act is persistently watched by powerful rivals, certainly impossible.

After inquiries made in England, France, Russia, Prussia, Spain, Italy, and America, even in Turkey, the hypothesis of a submarine monitor was definitely rejected.

Upon my arrival in New York several persons did me the honor of consulting me on the phenomenon

in question. I had published in France a work in quarto, in two volumes, entitled, "Mysteries of the Great Submarine Grounds." This book, highly approved of in the learned world, gained for me a special reputation in this rather obscure branch of Natural History. My advice was asked. As long as I could deny the reality of the fact, I confined myself to a decided negative. But soon finding myself driven into a corner, I was obliged to explain myself categorically. And even "the Honorable Pierre Aronnax, Professor in the Museum of Paris," was called upon by the *New York Herald* to express a definite opinion of some sort. I did something. I spoke for want of power to hold my tongue. I discussed the question in all its forms, politically and scientifically; and I give here an extract from a carefully studied article which I published in the number of the 30th of April. It ran as follows:

"After examining one by one the different hypotheses, rejecting all other suggestions, it becomes necessary to admit the existence of a marine animal of enormous power.

"The great depths of the ocean are entirely unknown to us. Soundings cannot reach them. What passes in those remote depths—what beings live, or can live, twelve or fifteen miles beneath the surface of the waters—what is the organization of these animals—we can scarcely conjecture. However, the solution of the problem submitted to me may modify the form of the dilemma. Either we do know all the varieties of beings which people our planet, or we do not. If we do not know them all, if Nature has still secrets in ichthyology for us, nothing is more conformable to reason than to admit the existence of fishes, or cetaceans of other kinds, or even of new species, of an organization formed to inhabit the strata inaccessible to sound-

ings, and which an accident of some sort, either fantastical or capricious, has brought at long intervals to the upper level of the ocean.

"If, on the contrary, we do know all living kinds, we must necessarily seek for the animal in question among those marine beings already classed; and, in that case, I should be disposed to admit the existence of a gigantic narwhal.

"The common narwhal, or unicorn of the sea, often attains a length of sixty feet. Increase its size fivefold or tenfold, give it strength proportionate to its size, lengthen its destructive weapons, and you obtain the animal required. It will have the proportions determined by the officers of the *Shannon*, the instrument required by the perforation of the *Scotia*, and the power necessary to pierce the hull of the steamer.

"Indeed the narwhal is armed with a sort of ivory sword, a halberd, according to the expression of certain naturalists. The principal tusk has the hardness of steel. Some of these tusks have been found buried in the bodies of whales, which the unicorn always attacks with success. Others have been drawn out, not without trouble, from the bottoms of ships, which they had pierced through and through, as a gimlet pierces a barrel. The Museum of the Faculty of Medicine of Paris possesses one of these defensive weapons, two yards and a quarter in length, and fifteen inches in diameter at the base.

"Very well! suppose this weapon to be six times stronger, and the animal ten times more powerful; launch it at the rate of twenty miles an hour, and you obtain a shock capable of producing the catastrophe required. Until further information, therefore, I shall maintain it to be a sea-unicorn of colossal dimensions, armed, not with a halberd, but with a real spur, as the armored frigates, or the

'rams' of war, whose massiveness and motive power it would possess at the same time. Thus may this inexplicable phenomenon be explained, unless there be something over and above all that one has ever conjectured, seen, perceived, or experienced; which is just within the bounds of possibility."

These last words were cowardly on my part; but, up to a certain point, I wished to shelter my dignity as professor, and not give too much cause for laughter to the Americans, who laugh well when they do laugh. I reserved for myself a way of escape. In effect, however, I admitted the existence of the "monster." My article was warmly discussed, which procured it a high reputation. It rallied round it a certain number of partisans. The solution it proposed gave, at least, full liberty to the imagination. The human mind delights in grand conceptions of supernatural beings. And the sea is precisely their best vehicle, the only medium through which these giants (against which terrestrial animals, such as elephants or rhinoceroses, are as nothing) can be produced or developed.

The industrial and commercial papers treated the question chiefly from this point of view. The *Shipping and Mercantile Gazette*, the *Lloyds' List*, the *Packet-Boat* and the *Maritime and Colonial Review*, all papers devoted to insurance companies which threatened to raise their rates of premium, were unanimous on this point. Public opinion had been pronounced. The United States were the first in the field; and in New York they made preparations for an expedition destined to pursue this narwhal. A frigate of great speed, the *Abraham Lincoln*, was put in commission, as soon as possible. The arsenals were opened to Commander Farragut, who hastened the arming of his frigate; but, as it always happens, the moment it was decided to pursue

the monster, the monster did not appear. For two months no one heard it spoken of. No ship met with it. It seemed as if this unicorn knew of the plots weaving around it. It had been so much talked of, even through the Atlantic cable, that jesters pretended that this slender fly had stopped a telegram on its passage, and was making the most of it.

So when the frigate had been armed for a long campaign, and provided with formidable fishing apparatus, no one could tell what course to pursue. Impatience grew apace, when, on the 2d of June, they learned that a steamer of the line of San Francisco, from California to Shanghai, had seen the animal three weeks before in the North Pacific Ocean. The excitement caused by this news was extreme. The ship was revictualled and well stocked with coal.

Three hours before the Abraham Lincoln left Brooklyn pier, I received a letter worded as follows:

"To M. ARONNAX,

"Professor in the Museum of Paris,

"Fifth Avenue Hotel, New York.

"SIR: If you will consent to join the Abraham Lincoln in this expedition, the government of the United States will with pleasure see France represented in the enterprise. Commander Farragut has a cabin at your disposal.

"Very cordially yours,

"J. B. HOBSON,

"Secretary of Marine."