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"To please the fancy—and improve the mind."

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## NATURAL HISTORY.

[*Natural History*, or the study of the works of Nature as the Creator made them, embraces a great many subjects and things, whatever we know about reptiles, fishes, birds, beasts, men, plants, shrubs, trees, flowers, precious stones, fossils, metals, minerals, rivers, mountains, lakes, seas, caves and other natural curiosities, and many more subjects which might be named, is natural history. Philosophers have summed up all in 4 divisions or departments, 1. Geology—or the structure of the earth, and what it is made of; 2. Botany.—or the natural history of plants; 3. Zoology—or the natural history of animals, and 4. Anthropology—or the natural history of man—we intend to give our Juvenile readers some information on each of these subjects.]

### SURFACE OF THE EARTH AND OCEAN.

To the physical knowledge of the earth belongs especially the consideration of its surface and interior. The earth's surface contains, as is said, 108,043,750 square miles, of which scarcely a third part is dry land; the remaining two thirds are water. The land is composed principally of two large masses or tracts, one of which comprehends the continents of Europe, Asia, and Africa; the other comprehends the continent of America. Australia, which lies in the ocean in a southerly direction from Asia, is so extensive as to be entitled to the name and character of a fifth division. All the detached and smaller masses of land, called islands when taken together, are computed to contain as much land as the continent of Europe. In reference to maps of the earth, Europe, Asia, Africa and Australia, with their islands, are distinguished as lying in the eastern hemisphere; while America, with the West Indies and other islands, are comprehended in the western hemisphere. The seas which encompass these extensive tracts of lands have locally various names; but the two principal expanses of water are the Atlantic and Pacific Oceans—the former separating Europe, Asia, and Africa, from America on the west, and the latter lying betwixt the western shores of America and the eastern shores of Asia. The extensive oceans surrounding the north and south poles are called the Polar Seas, which have not been explored sufficiently for us to be able to say whether any large tracts of land lie in these remote quarters of the globe. Great diversity of opinion prevails with respect to the depth of the ocean. By numerous in-

vestigations, it does not appear that the depth is any where much more than two or three miles, generally it is a great deal less; and it might be argued, that, notwithstanding the large surface of the ocean, the body of its waters can only be considered as lying like lakes in the hollows of the land; for the earth is eight thousand miles in diameter, and to that huge mass of dense matter the sea bears no proportion in its depth. While the surface of the land exhibits a variety of mountains ranges, hills, vales, and plains, so also is the bottom of the sea varied in its configuration, abounding in sand-banks, hills, rocks, and reefs, dangerous to the mariner; and the islands which rear their heads above the surface are only the tops of the highest hills and mountains in the sea. The waters of the ocean, as every one knows, are salt, to a greater or less degree—a quality which is considered necessary to preserve them from putridity; but how this saltness is produced, no one is yet able to tell correctly, although, as is generally conjectured, it must arise from the abundance of saline substances at the bottom of some parts of the ocean. The cause of springs on the land, from which rivers draw their sources, is also acknowledged to be still very doubtful. Some consider they originate from the rains which the earth has imbibed; some allege that they rise from subterranean lakes by means of capillary attraction; and others say that they are outlets for the water accumulated in higher parts of the country, which water has found its way through seams of rock, as if carried by pipes.

### THE CORAL INSECT.

These animals vary from the size of a pin's head, or even less, to somewhat more than the bulk of a pea; and by the persevering efforts of creatures so insignificant, working in myriads, and working through ages, enormous structures are erected. Enormous we may well call them, when the great coral reef of New Holland alone is a thousand miles in length, and when its altitude, though yet scarcely fathomed in twenty places, cannot range to less than between one and two thousand feet! It is a mountain ridge that would reach almost three times from one extremity of England to the other, with the height of Ingleborough, or that of the ordinary and prevailing class of the Scottish mountains. And this is the work of insects, whose dimensions are less than those of a house-fly! The thought of it is perfectly overwhelming.

### DANGERS OF A NOVA-SCOTIA FOG.

Concluded.

The captain who, through the whole scene, continued as composed as if nothing remarkable had occurred, now ordered the guns to be thrown overboard, but before one of them could be cast loose, or a breaching cut, the ship fell over so much that the men could not stand. It was, therefore, with great difficulty that a few guns were fired as signals of distress. In the same breath that this order was given, Captain Hickey desired the yard tackles to be hooked, in order that the pinnace might be hoisted out; but as the masts, deprived of their foundation, were tottering from side to side, the people were called down again. The quarter boats were then lowered into the water with some difficulty, but the jolly boat, which happened to be on the poop undergoing repairs, in being launched overboard, struck one of the stern davits, bilged, and went down.—The ship was now falling fast over on her beam ends; and directions were given to cut away her fore and main-mast. Fortunately, they fell without injuring the large boat on the booms—their grand hope. At the instant of this crash, the ship parted in two between the main and mizen-masts; and, within a few seconds afterwards, she again broke right across, between the fore and main-masts: so that the poor *Atalante* now formed a mere wreck, divided into three pieces, crumbling into smaller fragments at every send of the swell.

By this time a considerable crowd of men had got into the pinnace on the booms in hopes that she might float off as the ship sunk; but Captain Hickey, seeing that the boat was so loaded that she could never swim, desired some twenty men to quit her; and, what is particularly worthy of remark, his orders which were given with perfect coolness, were as promptly obeyed as ever. Throughout the whole of these trying moments, indeed, the discipline of the ship appears to have been maintained not only without the smallest trace of insubordination but with a degree of cheerfulness which is described as truly wonderful. Even when the masts fell, the sound of the crashing spars were drowned in the animating huzzars of the undaunted crew, though they were then clinging to the weather gunwale, with the sea, from time to time, making a clean breach over them, and when they were expecting every instant to be carried to the bottom!

As soon as the pinnace was relieved from the pressure of the crowd, she floated off the