

where there had been no water before; but after a time they ceased to flow.*

In a previous earthquake, in November, 1751, a violent shock destroyed the capital Port au Prince, and part of the coast, twenty leagues in length, sank down, and has ever since formed a bay of the sea.†

Hindustan, 1762.—The town of Chittagong, in Bengal, was violently shaken by an earthquake, on the 2d of April, 1762, the earth opening in many places, and throwing up water and mud of a sulphureous smell. At a place called Bardavan a large river was dried up; and at Bar Charra, near the sea, a tract of ground sunk down, and 200 people, with all their cattle, were lost. It is said, that sixty square miles of the Chittagong coast suddenly and permanently subsided during this earthquake, and that Ces-lung-Toom, one of the Mug mountains, entirely disappeared, and another sank so low, that its summit only remained visible. Four hills are also described as having been variously rent asunder, leaving open chasms from thirty to sixty feet in width. Towns which subsided several cubits, were overflowed with water; among others, Deep Gong, which was submerged to the depth of seven cubits. Two volcanos are said to have opened in the Secta Cunda hills. The shock was also felt at Calcutta.‡

Lisbon, 1755.—In no part of the volcanic region of southern Europe has so tremendous an earthquake occurred in modern times as that which began on the 1st of November, 1755, at Lisbon. A sound of thunder was heard underground, and immediately afterwards a violent shock threw down the greater part of that city. In the course of about six minutes, sixty thousand persons perished. The sea first retired and laid the bar dry; it then rolled in, rising fifty feet or more above its ordinary level. The mountains of Arrabida, Estrella, Julio, Marvan, and Cintra, being some of the largest in Portugal, were impetuously shaken, as it were, from their very foundations; and some of them opened at their summits, which were split and rent in a wonderful manner, huge masses of them being thrown down into the subjacent valleys.§ Flames are related to have issued from these mountains, which are supposed to have been electric; they are also said to have smoked; but vast clouds of dust may have given rise to this appearance.

The area over which this convulsion extended is very remarkable. It has been computed, says Humboldt||, that on the 1st November, 1755, a portion of the earth's surface four times greater than the extent of Europe was simultaneously shaken. The shock was felt in the Alps, and on the coast of Sweden, in small inland lakes on the shores of the Baltic, in Thuringia, and in the flat country of northern

* Essai sur l'Hist. Nat. de l'Isle de St. Domingue. Paris, 1776.

† Hist. de l'Acad. des Sciences. 1752. Paris.

‡ M'Clelland's Report on Min. Re-

sources of India, 1838. Calcutta. For other particulars, see Phil. Trans. vol. liii.

§ Hist. and Philos. of Earthquakes, p. 317.

|| Cosmos, vol. i.