

New World, for instance, at the island of Barbadoes, more than twelve hundred leagues distant from the coasts of Portugal.

Several facts tend to prove that the causes which produce earthquakes have a near connection with those which act in volcanic eruptions. The connection of these causes was known to the ancients, and it excited fresh attention at the period of the discovery of America. The discovery of the New World not only offered new productions to the curiosity of man, it also extended the then existing stock of knowledge respecting physical geography, the varieties of the human species, and the migrations of nations. It is impossible to read the narratives of early Spanish travellers, especially that of the Jesuit Acosta, without perceiving the influence which the aspect of a great continent, the study of extraordinary appearances of nature, and intercourse with men of different races, must have exercised near the island of Trinidad. In the West Indies, and in several lakes of Switzerland, this extraordinary motion of the waters was observed six hours after the first shock that was felt at Lisbon.—Phil. Trans., vol. xlix, pp. 403, 410, 544, 668; *ibid.* vol. liii, p. 424. At Cadiz a mountain of water sixty feet high was seen eight miles distant at sea. This mass threw itself impetuously on the coasts, and beat down a great number of houses; like the wave eighty-four feet high, which on the 9th of June, 1586, at the time of the great earthquake of Lima, covered the port of Callao.—Acosta, *Hist. Natural de las Indias*, ed. de 1591, p. 123. In North America, on Lake Ontario, violent agitations of the water were observed from the month of October 1755. These phenomena are proofs of subterraneous communications at enormous distances. On comparing the periods of the great catastrophes of Lima and Guatimala, which generally succeed each other at long intervals, it has sometimes been thought, that the effect of an action slowly propagating along the Cordilleras, sometimes from north to south, at other times from south to north, may be perceived.—Cosmo Bueno, *Descripcion del Peru*, ed. de Lima, p. 67. Four of these remarkable catastrophes, with their dates, may be here enumerated.

## MEXICO.

(Lat. 13° 32' north.)  
 30th of November, 1577.  
 4th of March, 1679.  
 12th of February, 1689.  
 27th of September, 1717.

## PERU.

(Lat. 12° 2' south.)  
 17th of June, 1578.  
 17th of June, 1678.  
 10th of October, 1688.  
 8th of February, 1716.

When the shocks are not simultaneous, or do not follow each other at short intervals, great doubts may be entertained with respect to the supposed communication of the movement.