

shock was not less severe in the volcanic district of Auvergne ; its direction was from the south-east : and on that day and the following there were several eruptions from Vesuvius.

The frequency of earthquakes, at particular periods, is well deserving of notice. In the fourth and fifth centuries, some of the most civilized parts of the world were almost desolated by these awful visitations. Thrace, Asia Minor, and Syria, according to cotemporary historians, suffered most severely : the earth was agitated continually for long periods, and flames were seen to burst from the earth, over a vast extent of surface. On the 26th of January, A. D. 447, subterranean thunders were heard from the Black to the Red Sea, and the earth was convulsed, without intermission, for the space of six months ; in many places, the air seemed to be on fire ; towns and large tracts of ground were swallowed up in Phrygia. On the 20th of May, A. D. 520, the city of Antioch was overturned by a dreadful earthquake, and two hundred and fifty thousand of its inhabitants are said to have been crushed in ruins. A raging fire covered the ground on which the city was built, and the district around ; spreading over an extent of forty-two miles in diameter, and a surface of fourteen hundred square miles.

About the middle of the last century, after the earthquake at Lisbon, Europe, Africa, and America, were, for some time, repeatedly agitated, by subterranean explosions ; as may be seen by referring to the journals of that time. *Ætna*, which had been in a state of profound repose for eighty years, broke out with great activity ; and, according to Humboldt, some of the most tremendous earthquakes and volcanic eruptions ever recorded in history were witnessed in Mexico. In the night of the 19th of September, 1759, a vast volcano broke out in a lofty cultivated plain ; a tract of ground more than twelve miles in extent, rose up like a bladder to the height of five hundred and twenty-four feet, and six new mountains were formed, higher than the Malvern Hills, in Worcestershire. More recently (in 1812) the tremendous earthquakes in the Caraccas were followed by an eruption in the Island of St. Vincent's, from a volcano that had not been burning since the year 1718 ; and violent oscillations of the ground were felt both in the islands and on the coasts of America. It may be inferred from these circumstances, that the cause of earthquakes and volcanic eruptions is seated deep below the surface of the earth ; in confirmation of which, it will only be necessary to state, that on the same day on which Lisbon was nearly destroyed, all Europe, and a great part of northern Africa, felt the shock more or less severely : its effects were also sensible across the Atlantic, both in the United States and the West Indies. Incredible as it may seem, one fourth of the northern hemisphere was agitated by the same earthquake. The bed of the Atlantic was raised above the surface of the ocean, and flame and vapour were discharged : this was observed by vessels at sea. If we take a terrestrial globe, and