

the Calabrian earthquakes, we gave illustrations of several of the fissures formed by the convulsion of the strata. These are not always permanent : opening when the shock occurs, they sometimes close as suddenly, crushing between their sides the houses which they swallow up. Individuals have been seen to disappear between their yawning jaws, whose bodies, a few moments afterwards, were launched in the midst of a deluge of water from the very chasm that had so recently engulfed them.*

An alteration in the level of the soil, resulting from the upheaval or sinking of a more or less considerable extent of the earth's crust, is one of the commonest effects of earthquakes. In India, in 1819, a hill or ridge, some twenty leagues in length by six in width, rose in the middle of a flat and level country. Further to the south, but parallel in the same direction, the land yielded, carrying with it the villages and the fort of Sindr , which remained surrounded with water. The changes spread in India over this immense extent are invariably displayed, over more confined spaces, in every earthquake. The primitive level of the soil is destroyed, and an abbreviation in the course of rivers and brooks is the usual result.

From the clefts thus opened in the soil, eruptions of various matters frequently take place—as of water, vapour, and even flames. At Catania, in 1818, jets of hot water were seen to leap from the earth's depths ; in 1812, near New Madrid, in the valley of the Mississippi, currents of steam ; at Messina, in 1812, streams of mud and black clouds of smoke. During the Lisbon earthquake, in 1755, flames and smoke were observed arising from a crevasse near the town, which had opened in the rocks of Alsidras : the louder grew the subterranean detonations, the intenser grew the smoke and fire. During the earthquake of New Granada, November the 16th, 1827, immense effluvia of carbonic acid gas, issuing from the clefts in the

* [It is but right to warn the reader against the exaggeration of these statements. Mr. Mallet—than whom there is no better authority—refuses credence to all such highly-coloured narratives of “ yawning chasms ” and “ profound abysses. ” They seem to have originated in a few cases of extraordinary landslips and the production of circular pits.]