

NORTH AMERICA.

Crossing the Isthmus of Panama, we arrive at the remarkable series of the Mexican volcanoes, which are all arranged in a right line running due east and west, some of them being situated at a considerable distance from the ocean. The principal active vents are those of the "starry" Popocatepetl, Colima, Tuxtla, Orizaba, and Jorullo: the latter is of recent origin. In June 1759 occurred a series of earthquake shocks, which greatly alarmed the inhabitants of the richly cultivated estate of Don Pedro di Jorullo, and continued for a period of nearly two months. On the night of the 28th of September they were renewed with increased violence; a tract of ground between three and four miles square was bodily lifted up until its highest point reached an elevation of 524 feet, while that of its borders was 39; flames broke out at various points along the surface; the earth rolled to and fro in billows like an agitated sea; great clouds of ashes, illuminated by the subterranean fires, seemed to obscure the very heavens; white-hot stones were thrown to an immense altitude; chasms suddenly opened, and swallowed up streams and springs; and the spectator might well have been forgiven for thinking that the foundations of the round earth were broken up.* Thousands of small cones sprang everywhere into existence, which the Indians named *hornitos*, or "ovens;" and from their summits jets of steam and vapour were emitted, with a subterranean noise like that of boiling water. Six larger elevations—one of which, 1600 feet high, now forms the principal volcano of Jorullo—rose out of a great crevasse in the midst of these "ovens;" the smallest of the six was 300 feet in height.

For nearly five months a state of violent activity prevailed. Then the eruptions became less frequent and less furious, but the principal crater and many of the *hornitos* still continue to discharge volumes of vapour.

* [An animated description of this remarkable catastrophe will be found in the 5th vol. of Humboldt's "Kosmos" (English translation). See also Daubeny "On Volcanoes;" and Sir C. Lyell, "Principles of Geology," 2 vols., new edition.]