

the sea, was reduced to fine powder by trituration, and the greater part of the entangled air got rid of, it was found to be of the specific gravity 2·64; and that of some of the sand which fell in the eruption was 2·75*; so that the materials equalled ordinary granites in weight and solidity. The only gas evolved in any considerable quantity was carbonic acid.†

Submarine eruptions in mid-Atlantic. — In the Nautical Magazine for 1835, p. 642, and for 1838, p. 361., and in the Comptes Rendus, April, 1838, accounts are given of a series of volcanic phenomena, earthquakes, troubled water, floating scoriae and columns of smoke, which have been observed at intervals since the middle of the last century, in a space of open sea between longitudes 20° and 22° west, about half a degree south of the equator. These facts, says Mr. Darwin, seem to show, that an island or an archipelago, is in process of formation in the middle of the Atlantic: a line joining St. Helena and Ascension would, if prolonged, intersect this slowly nascent focus of volcanic action.‡ Should land be eventually formed here, it will not be the first that has been produced by igneous action in this ocean since it was inhabited by the existing species of testacea. At Porto Praya in St. Jago, one of the Azores, a horizontal, calcareous stratum occurs, containing shells of *recent* marine species, covered by a great sheet of basalt eighty feet thick.§ It would be difficult to estimate too highly the commercial and political importance which a group of islands might acquire, if in the next two or three thousand years they should rise in mid-ocean between St. Helena and Ascension.

Canary Islands. — Eruption in Lancerote, 1730 to 1736. — The effects of an eruption which happened in Lancerote, one of the Canary Islands, between the years 1730 and 1736, were very remarkable; and a detailed description has been published by Von Buch, who had an opportunity, when he visited that island in 1815, of comparing the accounts transmitted to us of the event, with the present state and geological appearances of the country.|| On the 1st of September, 1730, the earth split open on a sudden two leagues from Yaira. In one night a considerable hill of ejected matter was thrown up; and a few days later, another vent opened, and gave out a lava-stream, which overran Chinanfaya and other villages. It flowed first rapidly, like water, but became afterwards heavy and slow, like honey. On the 7th of September an immense rock was protruded from the bottom of the lava, with a noise like thunder, and the stream was forced to change its course from N. to N.W., so that St. Catalina and other villages were overflowed.

Whether this mass was protruded by an earthquake, or was a mass

* Phil. Trans. 1832, p. 243.

† Ibid, p. 249.

‡ Darwin's Volcanic Islands, p. 92.

§ Darwin, ibid, p. 6.

|| This account was principally de-

rived by Von Buch from the MS. of Don Andrea Lorenzo Curbeto, curate of Yaira, the point where the eruption began.—Ueber einen vulkanischen Ausbruch auf der Insel Lanzarote.