happened in 1538. After frequent earthquakes, a gulf opened near the town of Tripergola, which discharged mud, pumice-stones, and ashes, and threw up in the course of one day and night a mound of volcanic materials, now called Monte Nuovo, a mile and a half in circumference at the base, and 440 feet in height; at the same time the coast to beyond Puzzuoli was permanently elevated many feet above the level of the Mediterranean.

13. ERUPTIONS OF VESUVIUS.-In the early periods of activity, violent explosions, with showers of scoriæ, ashes, and sand, characterised the eruptions of Vesuvius;* but since the existence of the present crater, lava-currents have generally been ejected. The appearance of an ordinary eruption, seen by night, is thus graphically described by a late traveller :---

"It was about half-past ten when we reached the foot of the craters, which were both tremendously agitated; the great vent threw up immense columns of fire, mingled with the blackest smoke and sand. Each explosion of fire was preceded by a bellowing of thunder in the mountain. The smaller mouth was much more active; and the explosions followed each other so rapidly, that we could not count three seconds between them. The stones which were emitted were fourteen seconds in falling back to the crater; consequently, there were always five or six

* The craters of Auvergne, that exhibit no traces of lava currents, are also supposed to have been produced by explosions.

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