

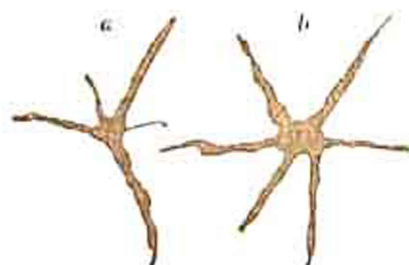
and buried that small town. A considerable part, however, of the hill was formed in less than twenty-four hours, and in the same manner as on a smaller scale the mud cones of air volcanos are produced, with a cavity in the middle. There is no difficulty in conceiving that the pumiceous mud, if so thrown out, may have set into a kind of stone on drying, just as some cements, composed of volcanic ashes, are known to consolidate with facility.

I am informed that Baron Von Buch has discovered some marine shells of existing species, such as occur fossil in the tuff of the neighbourhood, in beds exposed low down in the walls of the crater of Monte Nuovo. These may either have been ejected in the mud mixed with sea-water which was cast out of the boiling gulf; or portions of the ground raised and burst through by the lava and gases may perhaps remain; or some of the huge masses hurled into the air, and said to have fallen again round the edges of the vent, may be visible.

Tripergola was much frequented as a watering-place, and contained an hospital for those who resorted there for the benefit of the thermal springs; and it appears that there were no fewer than three inns in the principal street. Had Porzio stated that any of these buildings, or the ruins of them, were seen by himself or others raised up above the plain, a short time before the first eruption, so as to stand on the summit or slope of a newly-raised hillock, we might have been compelled, by so circumstantial a narrative, to adopt M. Dufrénoy's interpretation.

But in the absence of such evidence, we must appeal to the crater itself, where we behold a section of the whole mountain, without being able to detect any original nucleus of upheaved rock distinct from the rest: on the contrary, the whole mass is similar throughout in composition, and the cone very symmetrical in form; nor are there any clefts, such as might be looked for, as the effect of the sudden upthrow of stony masses. M. C. Prevost has well remarked that if beds of solid and non-elastic materials had yielded to a violent pressure directed from below upwards, we should find not simply a

Fig. 29.



deep empty cavity, but an irregular opening, where many rents converged; and these rents would be now seen breaking through the walls of the crater, widening as they approach the centre. (See fig. 29. *a, b.*)* Not a single fissure of this kind is observable in the interior of Monte Nuovo, where the walls of the

crater are continuous and entire; nor are there any dikes implying that rents had existed, which were afterwards filled with lava or other matter.

It has moreover been often urged by Von Buch, De Beaumont, and others, who ascribe the conical form of volcanos chiefly to upheaval from below, that in such mountains there are a great

* Mém. de la Soc. Géol. de France, tom. ii. p. 91.