X. *Further Notice of the New Volcano in the Mediterranean.* *By* JOHN DAVY, *M.D. F.R.S., Assistant Inspector of Army Hospitals.*

Read March 15, 1832.

THE last communication I had the honour to make to the Royal Society on this subject was dated the 25th October. Since that time the crater of the volcano, from the operation of various causes, has undergone several changes of form, and now it has disappeared entirely. Of these mere changes of form I shall not attempt to give any description, as they have not been minutely observed, and as no inference of any importance, that I am aware of, is to be drawn from them, excepting that the crater was one of "eruption," composed entirely of loose materials thrown up by volcanic action.

I notice this inference, because, in some accounts of the volcano which have appeared in the newspapers, it has been asserted that the crater was decidedly one of "elevation," that is, formed of rock once composing the bed of the sea, which had been elevated by volcanic force acting from below previous to the eruption. How such an opinion could have arisen, it is not easy to conjecture; I am not acquainted with a single circumstance connected with the crater that is favourable to it.

From the reports of masters of vessels, which seem deserving of credit, the crater disappeared in the latter end of December. About that time there were strong gales, a tempestuous sea, and very heavy rains; and, considering its composition, these causes seem adequate to account for its destruction. Its situation is now only marked by a dangerous shoal, on which from the latest accounts there are only a few feet of water.

In reply to some queries which a gentlemen of Malta was so obliging as to take with him to Sicily on a visit to the southern part of the island nearest to the volcano, I have been informed that its smoke or vapour was first seen from

the shore on the 11th July; that a few days previous, two or three slight shocks of an earthquake were felt along the coast from Sciacca to Marsala; that about a fortnight after, the air became dark and loaded with vapours, which at Sciacca had a distinct sulphureous smell; that the noise of the explosions was sometimes heard as far as Mazzara; and lastly, that the baths of Sciacca were a little hotter than usual.

These are all the additional particulars I have been able to collect which are deserving of credit. I have seen some fresh specimens brought from the volcano since my first account was drawn up; but they have proved, on examination, so very similar to those described in it, that they do not require particular notice. It may be, perhaps, not undeserving of mention, that two or three pretty large masses of vesicular lava were found amongst the loose ashes and cinders of the crater. The largest that I have seen or heard of weighed twenty-seven pounds; it was in the possession of Captain SENHOUSE, and resembled exactly the small fragments which I received from him, and which I have already noticed. Its appearance indicated that it had been thrown up in a solid state, after its angles had been worn like those of water-worn stones. Whether it is to be considered as a water-worn stone analogous to the dolomite pebbles alluded to in my paper, previously existing at the bottom of the sea, or of recent formation in the interior of the crater, or detached from an old bed of lava and worn by attrition during the eruption, it is difficult to decide.

When a remarkable phenomenon occurs, anything unusual happening at the same time is apt to be attributed to it, especially if there is any kind of analogy between them. The last summer in Malta was unusually hot; the thermometer exposed to the wind, more than once rose to 105° of FAHRENHEIT; this was generally supposed to be owing to the volcano. In the month of August a singular appearance was witnessed in the heavens, many evenings successively, both here and in Sicily; soon after sunset the western sky became of a dark lurid red, which extended almost to the zenith, and continued gradually diminishing in extent and intensity even beyond the limit of twilight. This phenomenon, too, was attributed to the volcano; and was supposed by many people, whom it greatly alarmed, to be portentous of some impending calamity, and especially of the invasion of the epidemic cholera. Whether

this fiery sky and the great heat of summer were really connected with the volcano in the relation of cause and effect, it may be difficult to determine; but I am rather disposed to consider them independent of it, especially the latter, as the hottest wind during the summer was from a different quarter, as the volcano emitted comparatively little fire, and as the temperature of the atmosphere in its immediate vicinity was very little affected by it.

Malta, January 28th, 1832.