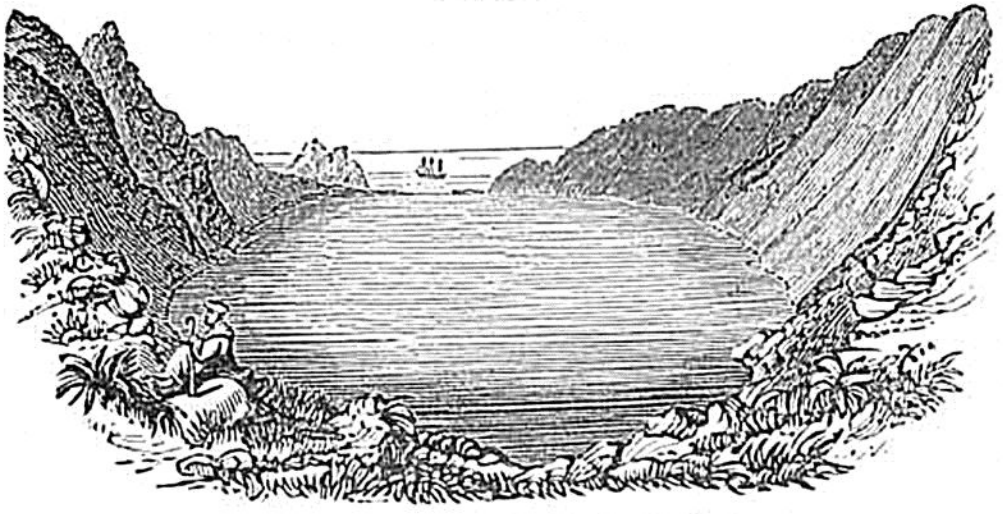
Fig. 649.



View of the Crater of the Island of St. Paul.

Fig. 650.

Side view of the Island of St. Paul (N. E. side). Nine-pin rocks two miles distant. (Captain Blackwood.)

a single passage. Every crater must almost invariably have one side much lower than all the others, namely that side towards which the prevailing winds never blow, and to which, therefore, showers of dust and scoriæ are rarely carried during eruptions. There will also be one point on this windward or lowest side more depressed than all the rest, by which in the event of a partial submergence the sea may enter as often as the tide rises, or as often as the wind blows from that quarter. For the same reason that the sea continues to keep open a single entrance into the lagoon of an atoll or annular coral reef, it will not allow this passage into the crater to be stopped up, but will scour it out at low tide, or as often as the wind changes. The channel, therefore, will always be deepened in proportion as the island rises above the level of the sea, at the rate perhaps of a few feet or yards in a century.

The crater of Vesuvius in 1822 was 2000 feet deep; and, if it were a half-submerged cone like St. Paul, the excavating power of the ocean might in conjunction with a gradual upheaving force give rise to a large caldera. Whatever, therefore, may have been the nature of the forces, igneous or aqueous, which have shaped out the Val del Bove on Etna or the deep abyss called the Caldera in the north of Palma, we can scarcely doubt that many craters have been enlarged into calderas by the denuding power of the ocean, whenever considerable oscillations in the relative level of land and sea have occurred.

Peak of Teneriffe.—The accompanying view of the Peak, taken from sketches made by Mr. Hartung and myself during our visit to Teneriffe