

two hundred volcanic hills and mountains. These, in former periods of our planet's history, have projected their tremendous fiery masses, ashes, and water, into the air; and vast streams of the melted rocks along the ground. Some of the smaller hills may have been secondary vents, burst open at the same time with a great mountain-eruption, with whose interior a series of minor cones might be connected in a way well known to those who have studied the structure and action of volcanoes. But, when every allowance is made for this supposition, there remains the astonishing spectacle of many contiguous burning mountains, some of them fairly comparable to Vesuvius.* All the accompaniments of volcanic action are here presented in the most perfect manner. The craters, the ejected ashes and cinders, the characteristic fragments of stones, and the consolidated but once liquid masses of various lavas, which have flowed in all directions, dispossessing rivers of their channels, filling up those channels and other valleys to heights of fifty, one hundred and many more feet, and spreading in their various flow, over many miles of area. The different and distant periods which separated these eruptions from each other, are shown by the interposition of stratified formations, and by numerous other circumstances, appropriate marks of volcanic districts. Subjacent and alternating beds of different material demonstrate the succession of distinct mineral formations, and a rich abundance of what was once vegetable and animal life in species of creatures which belong not to the present condition of our globe. Vast forests, and those of the largest chestnut trees, now clothe many parts of the slopes. "Rivers have, since the flowing of these lavas, worn themselves new channels;

* The summit of Vesuvius is 3900 feet above the level of the sea. Of these extinct volcanoes, one is 3956, another more than 4000, another nearly 5000, and many are from 500 to 1000.