ture is a remarkably striking feature of the rocks that underlie the great Lower Silurian volcanic outflows of Arenig and Cader Idris in North Wales. It recurs so frequently, not only among Palæozoic volcanic phenomena but quite as markedly among those of Tertiary age in the British Isles, that it must be regarded as marking an ordinary phase of volcanic action. But it remains of course invisible until in the progress of denudation a volcanic cone is cut down to the roots.

Exhalations of Vapors and Gases.—A volcano, as its activity wanes, may pass into the Solfatara stage, when only volatile emanations are discharged. The well-known Solfatara near Naples, since its last eruption in 1198, has constantly discharged steam and sulphurous vapors. The island of Volcano has now passed also into this phase, though giving vent to occasional explosions. Numerous other examples occur among the old volcanic tracts of Italy, where they have been termed *soffioni*. Steam, escaping in conspicuous jets, sulphuretted hydrogen, hydrochloric acid, and carbonic acid are particularly noticeable at these orifices. The vapors in rising condense. The sulphuretted hydrogen partially oxidizes into sulphuric acid, which powerfully corrodes the surrounding rocks. The lava or tuff through which the hot vapors rise is bleached into a white or yellowish crumbling clay, in which, however, the less easily corroded crystals may still be recognized *in situ*. At the same time, sublimates of sulphur or of chlorides may be formed, or the sulphuric acid attacking the lime of the silicates gives rise to gypsum, which spreads in a network of threads and veins through the hot, steaming, and decomposed mass. In this way, at the island of Volcano, obsidian is converted into a snow-white, dull, clay-stone-like substance, with crystals of