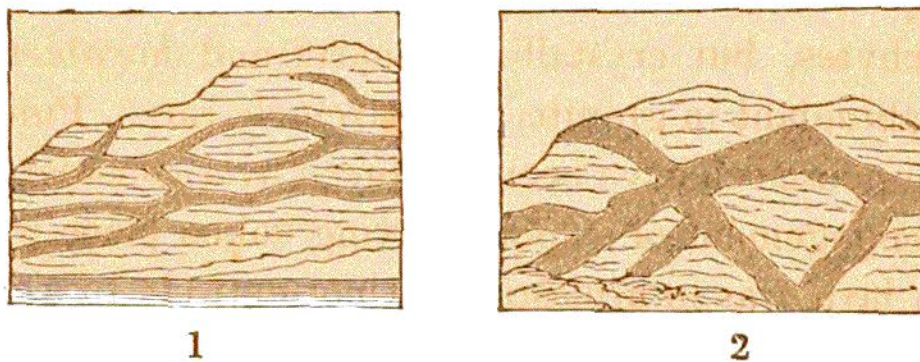


amount to 400 species ; of these my collection contains an extensive and valuable series, through the kindness of the Marquis of Northampton. In some of the ancient Vesuvian lavas, there are decided indications of a concretionary and prismatic structure, and a tendency to divide into columns.

Tuff, a term which I have made use of in this discourse, designates beds composed of scorixæ, sand, and ashes, which have either been wafted by the winds, and fallen into the sea, or washed down by torrents on the plains, and agglutinated together.



TAB. 142.—DIKES AND VEINS IN LAVA.

Fig. 1. Veins or dikes of slaggy lava in volcanic tuff; Stromboli.* 2. Lava dikes in scorixæ and sand; Etna.†

Beds of tuff are often traversed by veins or dikes of slaggy lava, the product of subsequent eruptions, which have been erupted into cracks and fissures of the pre-existing volcanic mass. The conglomeration called *peperino*, and the *lapilli* or pisolitic globules of earthy matter, appear to have been fine volcanic sand, which has assumed a concretionary

* Dr. Daubeny.

† Mr. Lyell.