

sections. The sheets of lava, often beautifully columnar, recall many of the basalts of Scotland. The beds of peperino, or tuff, likewise bear the strongest resemblance to some of the Carboniferous tuffs of the Lothians. Indeed, many parts of the scenery differ but little from some of the Scottish volcanic districts. We found the cones of scoriæ more numerous, but less perfect than round the Puy de Dôme; as if they belonged to an earlier era, and had consequently been longer exposed to the wasting effects of time. But this greater antiquity is occasionally productive of much advantage to the geologist, for it presents him with chasms and cliffs, without which he would miss many incidents in the geological history of the district. Thus, near Le Puy, the volcanic cone of Mont Denise, so well known for the interesting fossils which have been found in its underlying gravels, has had its western front exposed partly by nature and partly by man. By this means are laid bare the strata of volcanic breccia that rest on the marls of the old lake; on a worn surface of the breccia comes a band of true river gravel now several hundred feet above the present bed of the Borne, while associated with this gravel there is sometimes a newer volcanic tuff. Through these various deposits the volcano of Mont Denise broke out, piling up the mound of loose scoriæ and ashes that form the hill. Here we saw, what it had not been our good fortune to meet with in the Puy de Dôme—the actual section of a volcanic vent. The sides were smooth and worn, and the bed of hard breccia, which had been perforated nearly vertically, still retained the grooving and polishing produced by the friction of the ejected scoriæ. The vent was filled up with a black scoriaceous lava, while several lava *coulées* that had rolled down the hillside now formed dark masses of prominent crag and cliff. This little volcano bore a close resemblance