

The prevalence of corals in the thick masses of Carboniferous Limestone, and sometimes the rapid thinning out of these masses in opposite directions, point to the conclusion that they were true coral reefs, of the nature of the Barrier Reefs of Australia and the Pacific Ocean, and that they thinned away on one side to a feather edge in the direction of the land, and on the other more steeply towards the deep sea. These lenticular masses were probably formed round outlying islands, large and small, undergoing a process of slow depression, or otherwise on the shores of some old continent, the details of the original shape of which are now lost to our knowledge. One part of this land, however, consisted of that area now known as the mountainous parts of Wales, and the adjacent Silurian and Cambrian territory that underlies the *Coal-measures* of South Staffordshire, Warwickshire, and Leicestershire, Derbyshire, Cumbria, and the South of Scotland, while far north the Grampian mountains and the whole of the North Highlands stood higher above the level of the sea than they do now, for ever since they have suffered from denudation.

But while in the south, coral reefs of the nature of Barrier Reefs or Atolls were being formed, in the north the case was different; for there, as in parts of the modern Pacific, volcanic action was rife, and this is witnessed by the lavas and ashes, intermingled and interstratified with the whole of the Carboniferous series in Scotland. This area, together with the north of what is now England, was therefore more or less an area of elevation, accompanied by oscillations of partial depression. Thus it happens that in these regions, the bands of Carboniferous Limestone are quite insignificant when compared with the thick interstrati-