of minute detail, I shall present you at present with but a few of the leading lines.

The great central nucleus of Scotland, presenting considerably more than fifteen thousand square miles of surface, consists of what we shall term, with the elder geologists, primary rocks,—granites, gneisses, mica-schists, quartz-rocks, and clay-slates. These extend in one direction from the southern base of the Grampians to the northern limits of Sutherlandshire, and from Peterhead and Aberdeen on the east to Glenelg and Loch Carron on the west. [Now, around this great primary mass there runs a ring of the sedimentary fossiliferous rocks, somewhat, though of course not with such unbroken regularity, as a frame runs round a picture, or as the metallic setting of a Cairngorm or pebble brooch surrounds the stone. Of these earlier fossiliferous rocks, known about the beginning of the present century as the Grauwacke, and now as the Silurians, the frame or ring contains but fragments,—a narrow strip along the flanks of the Grampians on the south, and a few detached patches along the shores of Banff on the north and east. But the ring or frame of the next oldest fossiliferous system, the Old Red Sandstone, is very nearly complete; and to such a breadth do we find it developed, especially in the southern and northern parts of the enclosing frame, that, with the addition of a few patches in the border counties of Scotland, we find it occupying nearly five thousand square miles of the surface of our country.[1]] Outside the Old

[1] The Old Red Sandstone *frame*, and its corresponding illustrations, no longer hold good. The geology of north-western Scotland has recently been investigated by Sir Roderick Murchison, from whose researches it appears that Silurian strata occupy a much wider area of that district than had been previously suspected. Aided by Mr. Peach's discovery of Lower Silurian fossils in the crystalline limestones of Sutherlandshire, Sir Roderick has succeeded in showing that from the Atlantic to the German Ocean there is a regular succession of strata in ascending order, representing the Laurentian gneiss of Canada and the