form about nine-tenths of the Highlands of Scotland north of the Grampians. They consist chiefly of gneiss and mica-schist, with numerous bosses of granite, and near their base are partly formed of thick masses of quartz-rock, interbedded with two bands of crystalline or semi-crystalline limestone, containing Lower Silurian fossils, by which their age has been ascertained.

Next, on the north-east coast, we have the Old Red Sandstone, the Upper Silurian rocks, which form such an important part of the English strata, being absent.[1]

Farther south, above the Old Red Sandstone, lie the Carboniferous rocks, consisting of Calciferous sandstone, limestone, and Coal-measures, the limestone forming in Scotland but a very small intercalated part of the series. These strata lie in the great valley between the Old Red Sandstone of the Ochil range on the north, and the Old Red and Silurian rocks of the Lammermuir, Moorfoot, and Carrick hills, on the south. Besides these formations, there are others in some of the Western Islands, such as Skye and Mull, and in the east and south of Scotland, and elsewhere. These consist of various members of the Lias, Oolitic, and Miocene strata in the Isles, and a little Permian in the south, which, however, form such a small part of Scotland, that only in the Isles and a small part of the mainland at Ardnamurchan, and on the hills that overlook the Sound of Mull, do the Miocene igneous rocks seriously affect its physical geography. Therefore I shall chiefly confine myself to the mainland of the north Highlands, for I wish specially to treat of the

[1] This order for the north of Scotland was first established by Sir R. Murchison. See 'Siluria.'