

CHAPTER XXXIII.

SOILS.

THE soils of a country necessarily vary to a great extent, though not entirely, with the nature of the underlying geological formations. Thus, in the highlands of Scotland the gneissic and granitic mountains are generally heathy and barren, because they are so high and craggy, and their hard rocky materials sometimes come bare to the surface over considerable areas. Strips of fertile meadow land lie chiefly on narrow alluvial plains, which here and there border the rivers. Hence the Highlands mainly form a wild and pastoral country, sacred to grouse, black cattle, sheep, and red deer.

Further south, Silurian rocks, though the scenery is different, produce more or less the same kinds of soil, in the broad range of hills that lies between the great valleys of the Clyde and Forth, and the borders of England, including the Muirfoot and the Lammermuir Hills, and the high grounds that stretch southwards into Carrick and Galloway. There, the rocks, being chiefly composed of hard, untractable, gritty, and slaty material, form but little soil because they are difficult to decompose. Hence the higher ground is to a great extent untilled, though excellently adapted for pastoral purposes. Where, however, the slopes are covered more or less with old ice-drifts and moraine matter, the soil,