

these lines runs along the inner Hebrides nearly south and north, and includes in its area, as distinct centres of Plutonic action, the islands of Skye and of Mull, with what are known as the Small Isles lying between, and the promontory of Ardnamurchan. The other line sweeps across the country from north-east to south-west, commencing at Dunbar on the east, and terminating, in Scotland, with Arran and Campbelton on the west; but running, as I have said, across the Irish Sea, it re-appears in Ulster. It includes, among many lesser trap eminences, the Campsie, the Ochil, and the I.omond hills; the eminences also on which the castles of Stirling and Dumbarton are built; the hills which give character to the scenery around Edinburgh,—Corstorphine, Blackford, the Pentlands, the Castle rock, the Calton, Salisbury Crags, and Arthur Seat; and, far to the east, that Haddington group of trap hills to which North Berwick Law, the Bass, and the Isle of May belong. Beyond these great lines of injected cracks and filled-up craters, especially to the north and east, there are wide districts in Scotland in which there does not occur a single trap rock. The lava-like flood found its way to the surface from the fiery depths beneath, through the chinks and crannies which we now find indicated by the dikes and insulated stacks and hills of what we may term the Lothian and Hebridean lines, and through these only; and those portions of the Lowlands of Scotland which lie to the north of the Grampians, such as the plains of Caithness, Moray, and Easter Ross, present, from the absence of the trap, an entirely different character from that exhibited by the Lowlands of the south.

The igneous rocks have been divided, according to their mineral or mechanical character, into tuffs, amygdaloids, porphyries, dolerites, claystones, clinkstones, wackes, trachytes, and various other species. For our present purpose, however, and as adequate to the demands of our necessarily brief and imperfect sketch, we may regard the trap rocks