

Spey. The wooded bank on the right side of the river consists of Old Red Conglomerate covered in part with boulder-clay, and contains some picturesque ravines [Fig. 3].

Elgin is a good geological centre. A line of railway runs thence up the Spey, another goes to the shore at Burghead [59,123], a third to Lossiemouth. The whole of the low grounds of this region are deeply buried under gravelly and sandy drift. The hills to the north of Elgin consist of reptiliferous sandstone, some exposed surfaces of which have well-preserved glacial striæ indicating an eastward movement of the ice. The boulders too are of fragments of rock which have come from the west; one of these known as the 'Witch's Stone,' measuring $16 \times 12 \times 6$ feet, and consisting of Old Red Conglomerate, lies $2\frac{1}{2}$ miles south-east of Burghead. A boulder of gneiss $15 \times 8 \times 8$ feet rests on the sandstones at the east end of Loch Spynie. Many blocks of a remarkably coarse porphyritic gneiss (augen-gneiss) are scattered along the southern side of the Moray Firth, and seem to have come from a parent mass of rock which runs through the hills behind Ben Wyvis.

Forres is the station from which the Findhorn Sands [22, 24], and the picturesque gorge of the River Findhorn in the Old Red Sandstone, may be best visited. The railway runs through a great series of gravel and sand ridges or kames [369], and keeping the Old Red Sandstone heights of Culloden Moor to the left, enters Inverness.

14. EDINBURGH OR GLASGOW BY RAILWAY TO INVERNESS

This traverse of the country affords glimpses of many characteristic features of Highland topography. The first part of the route by Stirling and Perth to Stanley Junction has been already described (pp. 436, 454). Beyond Murthly Station, the railway crosses the great boundary fault along the margin of the Highlands. But no hint of the existence of that important geological structure will be obtained from the topography. To the north of the fault lies a patch of Old Red Sandstone, probably occupying what was once a bay on the flanks of the Highland table-land [see Fig. 30]. Hills of clay-slate now rise steeply on either side, and the Tay is observed flowing in the narrow defile of Birnam. Beyond the tunnel north of Dunkeld, the valley opens out, and the line of railway runs upon the