

series of basalt-lavas and tuffs cut into promontories and bays by the waves. Further information regarding Fife will be found at p. 455.

(3.) **Queensferry.**—The Firth of Forth narrows here to not more than a mile in breadth, the opposite promontories being formed of intrusive masses of diabase, which also appears in the island of Inch Garvie. Along the shore for some miles beyond South Queensferry the shales, limestones, and sandstones of the Lower Carboniferous series emerge from beneath the cover of boulder-clay which conceals them inland. The whole range of the Trossach Hills, the Ochils, and the Saline Hills of Fife form a noble panorama from these shores.

(4.) **To Stirling by Railway—Carse of the Forth.**—Immediately after leaving Edinburgh good views are obtained, to the left, of the northern part of the range of the Pentland Hills [340], and of Corstorphine Hill on the right [356]. At Ratho Station, immediately beyond the cutting through one of the eruptive masses of diabase that diversify the surface of this part of the Midland Valley, some ice-worn surfaces of rock may be seen on the side of the railway; a lofty viaduct carries the line across the valley of the River Almond into West Lothian. Immediately beyond comes a long series of cuttings in the lower Carboniferous strata, with their associated volcanic rocks. Binny Craig, to the south, has been already (p. 429) alluded to. Binns Hill, to the north, conspicuous by the tall, round tower on its summit, marks the site of one of these volcanic orifices, and consists of tuff, with a central plug of basalt (see Fig. 80). Linlithgow stands in a depression on the line of a great mass of basalt and tuffs associated with the Carboniferous Limestone. These rocks swell out southwards and form the chain of the Bathgate Hills. The Loch of Linlithgow is probably mainly due to irregular deposition of the drift which, immediately to the west, attains a great thickness and covers all the low grounds. The ridges of sand and gravel are particularly conspicuous. One of these, an admirable example of a Kame [369] begins near Polmont Junction and continues for several miles to the westward. Where first seen, it is a narrow, wooded ridge, which is often mistaken by casual travellers for the line of Antonine's Wall which also runs near this locality. Before passing Grahamston Station, a good view is obtained on the right of the wide Carse of Falkirk [38]. An upper and