

in length, and varies in width from four to seven miles. It contains the thickest bed of coal in Great Britain. (See page 105.) There is a narrow coal-field on the north-eastern border of Wales, extending from Mostyn in Flintshire, to Chirk in Denbighshire. There are also a few smaller coal-fields on the north-eastern side of Herefordshire, which extend into Shropshire. The Clee Hills, near Ludlow, contain, on their sides, two or three small detached coal basins. The summits of these lofty hills are capped with basalt.

The coal basin of the Forest of Dean, is the next considerable repository of coal: it presents, perhaps, the most perfect model of a coal basin of any in Great Britain; the coal strata occupy a space of about ten miles in length, and six in breadth: the millstone grit and the transition limestone on which they lie, may be distinctly observed cropping out, on its northern and western boundary.

In Somersetshire and Gloucestershire there is a considerable coal-field on each side of the river Avon: its greatest extent is about twenty miles, and its greatest ascertained breadth about eleven miles; but it is covered in many parts by the secondary strata, consisting of red marl and lias. The deepest coal mine in England is in this coal-field; the depth of the pit at Redstock, near Bath, being 409 yards.

The greatest repository of coal in our island is that which extends on the northern side of the Bristol Channel, 100 miles in length, and varying in breadth from five to twenty miles. Further information respecting many of the English coal-fields will be found in Chap. VIII.

A considerable part of the middle district (coloured green in the map), which is not occupied by the coal formations above enumerated, is covered by the red marl and sandstone, described in Chap. XI. As the sandstone of this formation often covers the coal strata, it becomes an object of great interest to landed proprietors in the midland counties, who have estates at no great distance from the coal districts, to ascertain whether coal may not extend under the red marl and sandstone. Some observations on this subject are given (pages 121 and 122), which the author is persuaded deserve the attention of landed proprietors. The search for coal under the red marl and sandstone in Somersetshire has been eminently successful; and coal has in some instances been found, by sinking through both lias and red sandstone.

The principal repositories of rock salt, and the strongest springs of brine, are situated in the red marl of Cheshire, and near Droitwich, in Worcestershire. (See p. 172.) In this formation the principal beds of gypsum are found: it is frequently associated with rock salt. (See Chap. XI.)

One of the most remarkable features of the middle district, is the occasional occurrence of various rocks (*in situ*) of granite, slate, and sienite, belonging to the class of primary or transition rocks: they rise through the secondary strata, and appear, from various circumstances, to have once occupied a considerable portion of the midland counties, extending from Leicestershire to Warwickshire, Worcestershire, Gloucestershire, Somersetshire, and Devonshire. The secondary strata of England, from lias to chalk (coloured yellow in the map), are pretty fully described in Chaps. XII., XIII., and XIV. The more recent or tertiary strata (coloured brown in the map, and marked 22),