

marks of confusion and derangement, being vertical and twisted into every possible form of contortion.

This Coal-field is traversed by *dykes* or *faults*, generally in a north and south direction, which throw all the strata from 50 to 100 fathoms up or down. They are usually filled with clay, but Mr. Townsend mentions an enormous fault, many fathoms thick, filled with fragments of the disrupted strata, which traverses the collieries of Lansamlet near Swansea, effecting a rise of 240 feet in the strata.

(2) COAL BASIN OF THE FOREST OF DEAN.

This forms an irregular elliptical basin occupying the whole of the forest tract. The interior portion which contains the coal measures ranges round Colford as a centre; the longest diameter from north-north-east to south-south-west, being about ten miles, the shorter about six. It is said to possess seventeen coal-beds, which together contain 37 feet in thickness of clear coal. All the strata dip uniformly towards the centre of the basin; the exterior ridges of mountain lime and old red sandstone inclosing the coal-measures, are prolonged across the Wye towards the west and form a mountain tract between that river and the Usk in Monmouthshire, the whole of this *coal tract* constitutes very high ground.

On the north of the forest of Dean basin, and at the distance of a few miles, is another small coal-field at Newent; it is surrounded and concealed by overlying strata of the newer red sandstone, and its relations have not as yet been distinctly ascertained.

(3) COAL BASIN OF SOMERSETSHIRE AND SOUTH GLOUCESTERSHIRE.

(a) *Coal-measures.*

These occupy an irregular area of which the longest diameter, from near Iron Acton on the north to Coalford at the foot of the Mendip hills on the south, is near 25 miles; the shorter, from the Newton Collieries near Bath on the east to those of Bedminster near Bristol on the west, about 11 miles; the course of the river Avon nearly coincides with this diameter, bisecting the coal-field into two nearly equal portions; on the north-east and west the strata dip distinctly towards the centre of the basin, but at Coleford near Mells on the south, where they abut against the Mendip hills (the calcareous strata