coal-field, whose measures are carried beneath them on the western side by their dip.

The principal coal-works are at Griff and Bedworth, near the south of the field; at Griff four beds of coal are worked, the depth of the first being 117 yards, and the principal seam being three yards in thickness. The Bedworth works are upon the same beds, but here the first and second coal-seams of Griff run together, and constitute one five-yard seam. The interposed strata of shale which separate them at Griff, and which are there found to be in the eastern shafts thirty-three yards and in the western twenty-five, gradually thinning away in proceeding westwards, till at length they entirely vanish.

Between Griff and Nun Eaton, in the bottom of the valley called Griff hollow, and thence ascending the northern hill, large masses of a very compact greenstone may be observed traversing the coal-shale: they do not appear to be dykes, but portions of two beds regularly and conformably interstratified among those of shale. (For a further account, see the appendix to this article.)

The millstone-grit, which has been mentioned as the lowest formation exhibited in this coal-field, may be seen to the greatest advantage on the edge of the escarpment half way between Atherstone and Nun Eaton. The character here assumed by this rock, is that of a very compact and cherty sandstone: its strata rise to east-north-east in an angle of 45°.

The opposite dips of this coal-field and the nearest parts of that described in the preceding article, shew that they are detached; although the interval between them at one point does not exceed six or seven miles. The overlying beds of the newer red sandstone completely conceal the substrata, on which both these coal-fields rest in that direction.

## Section III.

## DUDLEY, OR SOUTH STAFFORDSHIRE COAL-FIELD.

This coal-field extends in length about twenty miles, from near Stourbridge on the south-west over Cannock Chase, to Beverton near Badgeley on the north-east. Its greatest breadth near Dudley, may be about four miles. Its superficial area has been found by actual survey to equal sixty square miles: of this the northern portion from Cannock Chase to near Darlaston and Bilston, affords many coal-seams of eight, six and four feet in thickness. The southern portion, extending thence to mear