

the Coal fields of the northern and central parts of England shall be exhausted.*

Fig. 3. Section of inclined Carboniferous strata, overlaid unconformably by horizontal strata of New Red Sandstone, Lias, and Oolite, in Somersetshire.

This Section illustrates the manner in which Carboniferous strata have been elevated at their extremities around the circumference of a basin, and depressed towards its centre, and also intersected by fractures or Faults. See V. I. pp. 527, 542.

In Section 1, 2, of this Plate, no notice is taken of the Faults which intersect the Coal basins.

PLATE 66. V. I. p. 527, Note.

Fig. 1. Section of the strata composing the *Silurian System*, and the lower part of the Carboniferous System, on the frontiers of England and Wales. (Murchison.)

Fig. 2. Appearance of Faults intersecting the Coal formation near Newcastle-on-Tyne, copied from a portion of one of Mr. Buddle's important sections of the Newcastle Coal field, in the Transactions of the Nat. Hist. Society of Northumberland, V. I. Pt. 3, Pl. XXI. XXII. XXIII.† The advantages

* The lower and richest beds of this Coal district are not only raised to the surface, and rendered easily accessible around the external margin of the basin, but are also brought within reach in consequence of another important elevation, along an anticlinal line, running nearly E. and W. through a considerable portion of the interior of the basin, in the direction of its longer diameter.

† I feel it a public duty to make known an act of Mr. Buddle, which will entitle him to the gratitude of posterity, and has set an example, which, if generally followed in all extensive collieries, will save the lives of thousands of unfortunate miners, that must otherwise perish for want of information which can, at this time, be easily recorded for their preservation. This eminent Engineer and Coal Viewer has presented to the Natural History Society of Newcastle,