

the small size of the drawing would allow\*. The palæozoic strata occupy about half the area of the county; they include a small and singular district of Silurian slates, and a very large and varied series of Mountain Limestone, Millstone Grit, Coal, and Magnesian Limestone. By mineral associations and conformity of positions, this last rock passes into the New Red Sandstone group, which commences the Mesozoic series. This series is of unusual character in Yorkshire—the lower Oolites being almost lost in thick masses of Gritstone and Shale, with Ironstone and Coal. Above all is a small patch of Tertiary strata at Bridlington, and a great extent of clay, gravel, and sand, with large boulders scattered here and there, which were till lately termed diluvial deposits.

Three coloured Sections accompany this Map. One running from north-west to south-east, shows the relative positions and elevations of the rocks from the extreme north-west angle of Yorkshire, near Mickle Fell, to Bridlington. Along this line no true coal-measures appear; the Magnesian Limestone resting ‘unconformably’ against the Millstone Grit and Mountain Limestone. Another passing from S.S.W. to N.N.E., gives the general character of the north-western district. In this line the Mountain Limestone scarcely appears—the upper division (Yoredale rocks) is represented by thick shales below the Millstone Grit. A third section crosses the anticlinal between Lancashire and Yorkshire, and the rich coal-field of the West Riding; and shows below the Chalk near Cave, the incomplete development of the Oolites, which a little farther north do not appear at all, the Chalk resting on the Lias.

PLATE XXXI. Sections to illustrate the Craven Fault, p. 176.

- Fig. 1. Section from W. to E. across the ridge of Dufton Pike to Teesdale. S. Slate ridge; S.L. Scar Limestone; T. Whinsill; Y.S. Yoredale series; N.R. New Red Sandstone.
- Fig. 2. Section from W. to E. across the Lune at Kirkby Lonsdale. S. Slaty rocks; O.R. Old Red Sandstone; S.L. Y.S. as in fig. 1; M.G. Millstone Grit.
- Fig. 3. Section from S. to N. from the Coal at Burton to Ingleborough. S. S.L. Y.S. M.G. and N.R. as before. The Coal dips to the north under New Red.

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\* The author has prepared a larger map for separate publication. It may be had on application to Mr. Monkhouse, Lithographer, or any of the booksellers in York.