

## NOTICES OF MEMOIRS.

I.—NOTE SUR LE TERRAIN DEVONIEN DE LA RADE DE BREST. By Dr. CH. BARROIS. (*Ann. de la Soc. Géol. du Nord*, vol. iv. p. 59.)

THE Devonian strata of Brittany are found scattered here and there in the synclinal hollows of the Silurian beds, and have formed the subject of numerous papers by many eminent French geologists.

They consists of sandstones, grauwacke, limestones, and schists, and are divided by the author into five sections, each characterized by its distinct assemblage of fossils. M. Barrois carefully describes these several divisions and their contained fauna; and discusses their probable equivalents in other regions. His views on this latter point will be best gathered from the following table, which he has provisionally drawn up.

## DIVISIONS OF THE LOWER DEVONIAN.

	RADE DE BREST.	NASSAU.	ARDENNES, EIFEL.
III. Schists of Porsguen.	Schists of Fret. Schists of Porsguen.	Schists of Wissenbach.	Iron Ore of Fourmies, with <i>Spirifer cultrijugatus</i> .
			Grauwacke of Hiergés (base). Red Schists of Vireux and Burnot. Black Sandstone of Vireux.
II. Grau- wacke of Fauo.	Foliated schists, slates. Limestone. Grauwacke.	Grau- wacke of Coblenz } Slates. Limestone. Grau- wacke.	Hunds- rückian. } Slates of Alle. Lime- stone of Bouillon. Grau- wacke of Mon- tigny.
I. White Sandstone of Landevennec.	White Sandstone. Iron Ore.	Taunus Sandstone. Johannisberg Ore.	Anor Sandstone.
			Gedinian.

## II.—THE GEOLOGY OF THE NORTHERN PART OF THE ENGLISH LAKE DISTRICT. [Description of Quarter-sheet 101 S.E. of the Geological Survey Map of England and Wales.] By J. CLIFTON WARD, F.G.S., etc. 8vo. pp. 132. (London. 1876.)

THIS Memoir, the first issued by the Geological Survey in description of the Lake District, is devoted to an account of the geology of the country around Keswick, including the lakes of Ullswater, Thurlmere, Derwentwater, Bassenthwaite, Crummock Water, Buttermere and Ennerdale. Mr. Ward commences with a brief account of the Physical Geography, and then gives a general description of the rocks; these embrace the Skiddaw Slate, the Volcanic Series of Borrowdale (Green Slates and Porphyries), the Basement Conglomerate (often called Upper Old Red Sandstone), the Carboniferous Limestone, Glacial Deposits and Alluvium. Besides

these are numerous Igneous Rocks. All are described in detail, as well as the character and causes of metamorphism. Much attention has been given to the Igneous Rocks (a new feature in connexion with the Survey publications); and the work is accompanied by three coloured plates of microscopic sections of these rocks.

The faults and mineral veins are described, and one chapter is devoted to Plumbago or Graphite. Cleavage is the subject of another brief chapter, while the Physical History of each formation is dwelt upon at more length. The Glacial Phenomena of the District, and the Relation of the Scenery to Geology receive due attention, and the concluding chapter is devoted to the fossils of the Skiddaw Slate. In an Appendix Mr. Etheridge describes some new species of Trilobites from this formation, and one new genus of Annelida, termed *Stella-scolites*. There is also a useful Appendix containing a list of all works bearing on the geology of the district.

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REPORTS AND PROCEEDINGS.

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GEOLOGICAL SOCIETY OF LONDON.—I.—April 25th, 1877.—Prof. P. Martin Duncan, M.B., F.R.S., President, in the Chair.

1. "On the Upper Limit of the essentially Marine Beds of the Carboniferous System, and the necessity for the establishment of a 'Middle Carboniferous Group.'" By Prof. E. Hull, F.R.S., F.G.S.

The author, in this paper, divided the whole of the Carboniferous rocks into successive stages from A to G inclusive, taking the Carboniferous beds of Lancashire as a type, and showed that these stages could be identified over the whole of the British Isles. It was only recently that their determination had been made in Ireland, so that until now the materials had not existed for a complete correlation of the series in the British Islands. The following is an abbreviated statement of the representative stages in descending order:—

*Essentially Freshwater or Estuarine, with one or two Marine Bands.*

STAGE G.—*Upper Coal-measures* of Lancashire (2000 ft.) and other English coal-fields. Red Sandstones, etc., of Bothwell and Ayr, in Scotland. (Absent in Ireland.)

STAGE F.—*Middle Coal-measures* of Lancashire, etc., with principal coal-seams (3000 ft.). Flat coal series of Scotland. Present in Ireland (Tyron, Kilkenny).

*Essentially Marine.*

STAGE E.—"*Gannister Beds*" (Phillips), with marine shells and thin coals (2000 ft.), in Lancashire. "Pennystone series" of Coalbrook Dale, South Wales, etc. "Slaty black-band" series of Scotland. (Present in Ireland, Kilkenny, Dungannon, Lough Allen Coal-fields.) Also in Belgium, Rhenish Provinces, and Silesia, with numerous marine shells.

STAGE D.—*Millstone Grit Series* of England and Wales. 3500 ft. in Lancashire; "Moorstone Rock" of Scotland; "Flagstone-series" of Carlow and Kilkenny; Millstone Grit of Fermanagh and Leitrim, with coals and marine shells.