

Seven Oaks, Maidstone,¹ Boughton, and near Ashford, etc. The coast line from Hythe to beyond Folkstone harbour, exposing, as is well known, a fine section of the Lower Green sand series.²

From the foregoing brief remarks it will be seen that the Lower Green-sand strata vary in their mineral characters, when traced over the British area, thus the limestones of the eastern part of the Wealden districts are wanting in the western part, as well as in the Isle of Wight, where arenaceous and argillaceous beds predominate. On this point Mr. Meyer and Dr. Fitton have made some suggestive and valuable observations.³ So also on tracing them from Dorset to Yorkshire, they chiefly consist of ferruginous sands, and sandstones, which in Lincolnshire are intercalated by sandy calcareous beds, called 'greystone,' and still further north at Speeton, are represented by argillaceous strata. Further, it may be observed with regard to their position that, in Southern England, these beds always directly overlie the *Wealden beds*, whilst as they trend from Dorset to Yorkshire, they are found lying upon either the Purbeck, Portland, Kimmeridge, Calc grit, Coral rag, or Oxford clay, some of which from the evidence afforded by the boring mollusca, must have remained for a period uncovered by the now overlying sands.⁴ That a certain amount of denudation took place prior to the deposition of the Lower Green-sand, in the northern area, is, I think, evident,⁵ but that the Purbeck and Portland strata ever extended far beyond their present limits is not so probable, as they may have thinned out in that direction, a point to which I may again refer, when treating of these formations as they occur in Bucks.

NOTICES OF MEMOIRS.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
DUNDEE, September 5th, 1867.—List of Papers read before the Geological Section. (Section C.) President, Archibald Geikie, F.R.S., etc.

Dr. Robert Chambers—Notice of an "Esker" at St. Fort.

¹ From the quarries of this stone belonging to Mr. Bensted of Maidstone, the fine specimen of *Iguanodon Mantelli*, now in the British Museum, was obtained in 1834.

² Fitton, *Geol. Trans.* vol. iv. plate 8.

³ C. J. A. Meyer, "On the Correlation of the Cretaceous Rocks of the South-east and West of England," *Geol. Mag.* vol. iii. Jan. 1866; Fitton, "Comparative remarks on the Sections below the Chalk at Hythe, Kent, and Atherfield, Isle of Wight," *Geol. Journ.* vol. i. p. 179, May, 1844. Dr. Fitton shews that the prominent points of difference between the sections of the Kentish coast and the Isle of Wight, are considerable variation in mineral composition,—the almost total absence of Limestone at Atherfield, and the greater thickness of the Lower Green-sand at this latter place (by 346 feet) than at Hythe.

⁴ Where the "Tourtia," or part equivalent of Lower Green-sand, in Belgium, overlies the denuded surface of the contorted beds of Palæozoic limestone, numerous borings of mollusca may be seen, as at Montigny-sur-roc and other places.

⁵ The former existence of the Upper Wealden strata, in the interior of England, is rendered probable by the erosion of the Purbeck beds, in many places, where the Lower Green-sand comes in contact with them. Fitton, *Geol. Trans.*, vol. 4, p. 325. See also Mr. Walker, *An. Mag. Nat. Hist.*, August, 1867.

- D. Milne Home—On the Old Sea Cliffs and Submarine Banks of the Frith of Forth.
- Dr. J. Bryce—Account of Recent Researches into the Age of the Arran Granites.
- E. A. Wünsch—On some Carboniferous Fossil Trees, embedded in Trappean Ash, in the Isle of Arran.
- Professor Harkness and Dr. H. A. Nicholson—On the Coniston Group of the Lake District.
- Dr. H. A. Nicholson—On the Graptolites of the Skiddaw Slates.
- Dr. H. A. Nicholson—On the Nature and Systematic Position of the Graptolitidæ.
- R. H. Scott—Preliminary Report of the Committee for the Exploration of the Plant Beds of North Greenland.
- J. Wyatt—On the Gradual Alteration of the Coast Line in Norfolk.
- George Maw—On the Cambrian Rocks of Llanberis, with reference to a break in the Conformable Succession of the Lower Beds.
- Dr. Oldham—On the Geology of India.
- The President—An Account of the Progress of the Geological Survey of Scotland.
- H. Woodward—Third Report on Fossil Crustacea.
- F. M. Burton—On the Lower Lias, and traces of an ancient Rhætic Shore in Lincolnshire.
- J. E. Taylor—On the Norfolk Chalk-marl.
- H. S. Ellis—On the Mammalian Remains from the Submerged Forest in Barnstaple Bay, Devonshire.
- W. Pengelly—Third Report of the Committee for the Exploration of Kent's Cavern, Devonshire.
- Professor Ansted—On the Conversion of Stratified Rock into Granite in the north of Corsica.
- Dr. Julius Schvarcz—On the Internal Heat of the Earth.
- Dr. C. Le Neve Foster—On the Preseberg Iron Mines, Sweden.
- F. Gordon Davis—On the Calamine Deposits of Sardinia.
- Dr. C. Collingwood—On the Geology of the North of Formosa, and of the adjacent Islands.
- On some sources of Coal in the Eastern Hemisphere.
- Notes on the Geological Features of the Sarawak River.
- W. Carruthers—Enumeration of British Graptolites.
- E. Hull—On the Structure of the Pendle Range, Lancashire, as illustrating the South-easterly attenuation of the Carboniferous Sedimentary Rocks of the North of England.
- W. S. Mitchell—Second Report on the Alum-Bay Leaf-bed.
- E. Hull—Observations on the Relative Geological Ages of the principal Physical Features of the Carboniferous District of Lancashire.
- W. Carruthers—On British Fossil Cycadææ.
- On Calamiteæ and Fossil Equisetaceæ.
- Professor Charles Martins—On the Ancient Glacier of the Valley of Argelez, in the Pyrenees (read in French by the Author.)

- C. W. Peach—On new Fossil Fishes from Caithness and Sutherland.
E. Ray Lankester—On some new Cephalaspidean Fishes.
J. F. Walker—On a new Phosphatic Deposit.
Captain F. Brome—Notice of recent discoveries in Caves of Gibraltar, communicated by G. Busk, F.R.S.
Professor Ansted—On the Lagoons of Eastern Corsica.
Rev. W. H. Crosskey—Notes on the relation of the Glacial Shell Beds of the Carse of Gowrie to those of the West of Scotland.
John Plant—On the Geology and Fossils of the Lingula Flags, at Upper Maddach, North Wales.
Rev. J. Gunn—On Tertiary and Quaternary Deposits in the Eastern Counties, with reference to periodic oscillations of level and climate.
Mr. James Thomson exhibited a large series of sections of Corals from the Carboniferous Limestone, etc., prepared to illustrate Dr. P. Martin Duncan's Monograph on British Fossil Corals, for the Palaeontographical Society.
Mr. R. Slimon's collection of Upper Silurian Crustacea, from Lesmahagow, in Lanarkshire, were exhibited, and Mr. Woodward called attention to some of the new forms.

REVIEWS.

FIGURES OF CHARACTERISTIC BRITISH FOSSILS: WITH DESCRIPTIVE REMARKS. By WILLIAM HELLIER BAILY, F.L.S., F.G.S., ACTING PALEONTOLOGIST TO H.M. GEOLOGICAL SURVEY OF IRELAND, etc., etc. Part I, Plates 1-10, Cambrian and Lower Silurian. 8vo. pp. 54. 1867. London: J. VAN VOORST.

THIRTY-SEVEN years ago Samuel Woodward (Author of "An Outline of the Geology of Norfolk") published his "Synoptical Table of British Organic Remains," being the first attempt in this country to furnish a systematically and stratigraphically arranged list of British fossils since the *Ichnographia* of Lhwyd in 1699.

Thirteen years later (1843) the progress of geological studies necessitated a new edition, but Mr. Woodward being dead, Professor Morris brought out the first edition of his "Catalogue of British Fossils," a work which has justly maintained the first place in all geological libraries. The second edition appeared in 1854. We are glad to learn from the author that the third edition is now in preparation, and shall be still more so to announce it as "now ready."

Only those who have the work of arranging a geological collection can fully estimate the value of a reference catalogue. And this need increases with the size and varied nature of the collection to be named. The book before us does not chiefly aim at supplying the wants of the scientific worker and museum curator, but it is intended rather to assist geological students, and others, who, from their limited knowledge of palaeontology, require to have figures of the various fossils placed before them, as well as their names and references, in order to enable them to identify their specimens. When it is borne