

NOTICES OF MEMOIRS.

I.—GEOLOGICAL SURVEY PUBLICATIONS.

1. THE GEOLOGY OF THE COUNTRY AROUND MALLERSTANG, WITH PARTS OF WENSLEYDALE, SWALEDALE, AND ARKENDALE. By J. R. DAKYNS, R. H. TIDDEMAN, R. RUSSELL, C. T. CLOUGH, and A. STRAHAN. (Parts by J. G. GOODCHILD, C. E. DE RANCE, G. BARROW, and F. H. HATCH.) 1891. pp. 213. Price 3s. 6d.

THE area described by the numerous authors in this Memoir is, for the most part, an elevated tract rising 2000 feet and more above the sea-level, and including the sources of the rivers Ure (or Yore), Swale, Lune, and Eden. The oldest rocks exposed belong to the Coniston Limestone Series, and of this series the Ashgill shales form the upper part, and the top of the Lower Silurian (or Ordovician). The lowest division in the overlying Upper Silurian system is that known as the Stockdale shales, and it is remarked that its base is determined principally on palæontological considerations, for there is an abrupt change from the fauna of the beds below, without any stratigraphical unconformity. Succeeding the Stockdale Shales are the Coniston Flags and Grits, and the Bannisdale Slates. Resting unconformably on the Silurian rocks comes the great Carboniferous series, including representatives of the Basement red conglomerate and sandstone (which may be of the age of the Upper Old Red Sandstone), Lower Limestone Shales, Great Scar Limestone Series, Yoredale Rocks, and Millstone Grit. The description of these rocks occupies the greater part of the Memoir, which indeed deals with the district of Uredale (Yoredale) or Wensleydale, from which the Yoredale rocks take their name. Some Permian and Triassic rocks, as well as Glacial Drifts and Recent deposits, are described. There are also notes on the Lead-mining, on the Coal-beds which occur in the Yoredale Series and Millstone Grit, and on the Building-stones.

Dr. Hatch contributes notes on the Eruptive rocks; and there is a list of Carboniferous fossils by Mr. Etheridge.

2. THE GEOLOGY OF PARTS OF CAMBRIDGESHIRE AND OF SUFFOLK (Ely, Mildenhall, Thetford). By W. WHITAKER, H. B. WOODWARD, F. J. BENNETT, S. B. J. SKERTCHLY, and A. J. JUKES-BROWNE. 8vo. pp. 127. Price 2s.

IN this Memoir we have the accounts of the Oxford Clay, Corallian Beds, and Kimeridge Clay of the neighbourhood of Willingham, Upware, and Ely. Mr. T. Roberts has contributed a revised list of the Upware Fossils (from his, as yet unpublished, Sedgwick Essay of 1885); and Mr. E. T. Newton has some notes on the Vertebrata from the Kimeridge Clay, in the collection of Mr. Marshall Fisher of Ely. Then follow notes on the Lower Greensand and its Coprolite Beds, on the Gault, and on the several

divisions of the Chalk which includes the Coprolite Bed of the "Cambridge Greensand."

About half the work is devoted to Glacial and Post-Glacial Drifts, and this includes notes by Mr. Skertchly on beds at Culford, Mildenhall, and other places, where he obtained worked flints, believed by him to have come from strata older than the Chalky Boulder Clay; as Mr. Whitaker remarks, the question is whether the implements were really obtained from the beds in which they were reported to have been found.

A number of records of well-sections are given, and there are supplementary geological bibliographies of Cambridgeshire and Suffolk.

3. EXPLANATIONS OF HORIZONTAL SECTIONS.

Nos. 130 to 139 have been prepared by Mr. C. FOX-STRANGWAYS, with the assistance of Mr. H. H. HOWELL, Mr. CLEMENT REID, and Mr. GEORGE BARROW. They give concise descriptions of the Jurassic, Cretaceous and other strata in various parts of East Yorkshire. Explanation of Horizontal Section, Sheet 140, by Mr. Horace B. Woodward, describes the Jurassic and other strata along a line from Bishopstone, near Hartwell, to near "the Centre of England" at Wibtoft in Warwickshire. These explanations are issued to the public at the modest price of 2*d.* each.

II.—CARBONIFEROUS CEPHALOPODS. By ALPHEUS HYATT. From Second Annual Report of the Geological Survey of Texas, 1890. pp. 329–356. (Austin, State Printing Office, 1891.)

THE descriptions given in this paper were taken partly from a collection forwarded to the author by Mr. E. T. Dumble, State Geologist of Texas, partly from specimens belonging to the United States National Museum, Washington, D.C., and partly from specimens belonging to private individuals whose names are given in connexion with the specific descriptions. As stated in an introductory note, the forms here described comprise a larger number of Carboniferous species than has hitherto been got together in a single publication. The genera represented are divided between the *Nautiloidea* and the *Goniatitinae*. To the former belong *Temnocheilus* with five species (*Forbesianus*, *latus*, *conchiferus*, *depressus*, and *crassus*, the last three being new); *Metacoceras* with five new species (*cavatiformis*, *dubium*, *Walcotti*, *Hayi* and *inconspicuum*); *Tainoceras* with one new species (*cavatum*); *Domatoceras*, a new genus allied to *Centroceras*, represented by the new species *umbilicatum*; *Asymptoceras* with one new species (*Newtoni*); *Phacoceras* with one new species (*Dumbli*); *Ephippioceras* with one new species (*divisum*); and *Endolobus* with one new species (*gibbosus*). The *Goniatitinae* are represented by the genus *Gastrioceras* with the new species *G. compressum*. The descriptions are accompanied by outline figures.