

abundantly in Northumberland in all the beds which everybody admits to be Tuedian or Lower Carboniferous? Almost all the Carboniferous Limestone of North Northumberland is the representative of Phillips's Yoredale Series, and I have no doubt the Budle Beds are much nearer to the top than the bottom of the Carboniferous Limestone Series. In Ireland the *Posidonomya* is a characteristic fossil of certain black shales lying above the Carboniferous Limestone, which were at one time regarded as Coal-measures, but which are probably the representatives of the Yoredale Beds of England (see Jukes's Manual, 3rd edition, pp. 591-2). I hope soon to show that the Tuedian Beds and the Calciferous Sandstone of Scotland represent in time not only the Lower Limestone Shale, but the greater part of the Carboniferous Limestone also.

20, CUMBERLAND STREET,
EDINBURGH, Dec. 20, 1884.

W. GUNN.

OBITUARY.

DR. THOMAS WRIGHT, F.R.S., F.R.S.E., F.G.S.

Dr. Thomas Wright was born in Paisley, Renfrewshire, N. B., November 9th, 1809. He was educated at the Paisley Grammar School, and before he completed its curriculum, was articled to his brother-in-law, a surgeon and general practitioner, where he acquired an elementary knowledge of the Natural Sciences, and showed an early predilection for biological studies.

Before the expiration of his articles his brother-in-law removed to a practice in Ayrshire, which occasioned an interruption to his course of study, and temporarily disarranged his pursuits. After a futile attempt to enter into a manufactory, for which his scientific tastes rendered him quite unfit, he rejoined his brother-in-law, and having completed his articles, prepared himself for entering the medical classes of the University of Glasgow. But acting upon the advice of his friends, he proceeded to Ireland, and enrolled himself as an anatomical student in the Royal College of Surgeons, Dublin, where he rapidly acquired an extensive knowledge of anatomy, and became an accomplished physiologist and pathologist. Later on he was induced to study under Messrs. Kirby and Ellis, and soon became their Assistant-demonstrator. On leaving Dublin he received the highest credentials from those gentlemen, and was offered the post of Demonstrator of their School, with the promise of the Chair of Anatomy and Physiology if he remained.

During the preceding winter, however, Dr. Wright had suffered much from a dissecting wound which quite unfitted him for anatomical work, and compelled him to decline the offer so handsomely made by Mr. Ellis. On recovering his health, he passed the College of Surgeons, London, in 1832. and graduated as M.D., at St. Andrew's University in 1846. Soon after passing the College he settled in Cheltenham, where his life has since been spent in the active practice of his profession. He was for fifteen years Surgeon to the Cheltenham

Dispensary, for upwards of twenty years Surgeon to the General Hospital; and for many years President of the Literary and Philosophical Association, during which period he delivered, in different sessions, courses of lectures on Comparative Physiology, Natural History, and Palæontology.

Dr. Wright strongly advocated the teaching of Natural Science in colleges and schools, and was always ready to help in the cause of popular education. He frequently lectured in Bristol, Bath, Worcester, and elsewhere, on scientific subjects which he made his life-long study. During the early days of his professional career he devoted much time to microscopical research, but his eyesight suffering from too close an application to these investigations, he turned his attention to Palæontology, in the pursuit of which the Oolitic rocks of the Cotteswold Hills around Cheltenham afford such rich materials. He made in his leisure hours a large collection of fossil Echinoderms from these and other Oolitic formations, and read a series of Memoirs to the Cotteswold Field Club on the minute anatomy of this class, which appeared in the *Annals and Magazine of Natural History*. These papers attracted the attention of Professor Edward Forbes, F.R.S., who spoke in high terms of their merit, and proposed to Dr. Wright that they should publish a joint Monograph on the British Fossil Echinodermata for the Palæontographical Society. It was finally settled that Professor Forbes should describe and figure the British Cretaceous and Tertiary species, and that Dr. Wright should describe and figure the Oolitic forms. But that accomplished Naturalist died, just when he had obtained the ambition of his life, the chair of Natural History in the University of Edinburgh, and before he had done anything to his portion of the work; so that on the completion of the Monograph on the Oolitic Echinidæ, and the Monograph on Oolitic Asteriadæ and Ophiuridæ, the Council of the Palæontographical Society requested Dr. Wright to undertake that part of the work which Edward Forbes had left unfinished. Dr. Wright commenced (in 1860) the description, with figures, of all the Cretaceous species, and for more than twenty years he devoted all his leisure to this work, which is now completed, and forms a large volume of 390 pages quarto, with 87 magnificent plates.

In 1875 Dr. Wright commenced another extensive Monograph on the "Lias Ammonites of the British Isles." He had been collecting materials for this work during his long residence in Cheltenham; and had succeeded in securing a rare and beautiful series of these Cephalopods, many of his specimens having been carefully and judiciously selected to show the remarkable morphological changes through which Ammonites pass in the process of their evolution. This work, happily now completed, consists of 480 pages of text and 90 plates. His palæontographical labours fill four large quarto volumes, and comprise 242 plates, accompanied by 1568 pages of descriptive letterpress, every species having a full detailed description given of the form, with its affinities and differences from congeneric species carefully pointed out, also the locality from

whence it was derived, and its stratigraphical distribution accurately defined, both in English and Continental rocks. These works have occupied all his leisure hours for the last thirty years. Much of this time was devoted to the collection of specimens, the examination of private cabinets and those in British and foreign museums, in order to compare all the British species with continental forms, and thus to bring each one to the crucial test of a critical and personal examination. He made many journeys to the Continent to visit the grand collections in Paris, Stuttgart, and Tübingen in Germany, and those in the Geneva Museum, and in that of Zurich, Switzerland. The accomplishment of this self-imposed task has been the pleasure and delight of his life. For these works, and other memoirs on geology published in the Quarterly Journal, the Council of the Geological Society awarded him the Wollaston Medal in 1878.

Dr. Wright was elected a Fellow of the Royal Society of Edinburgh in 1855, a Fellow of the Geological Society in 1859, and a Fellow of the Royal Society of London in 1879. For many years he filled the post of Medical Officer of Health for Cheltenham, Charlton Kings, and Leckhampton.

Referring to the sad losses which our science sustained at the close of 1884, in the deaths of Mr. Godwin-Austen; Dr. Wright; Prof. James Buckman; Mr. Alfred Tylor; and Mr. Searles V. Wood; all of them Fellows of the Geological Society, Prof. Edward Hull, F.R.S., writes:—"Dr. Wright was one of that small band of local geologists, who, like Charles Moore of Bath; Dr. Lycett of Minchinhampton; G. W. Ormerod of Cheshire; and Edward Binney of Manchester; have made their respective habitats, to use a scientific term, as household words amongst geologists, and have largely contributed to the general advancement of our knowledge of Natural History."

The following is a List of his Geological Papers and Monographs:—

- A Stratigraphical Account of the Sections from Round Tower Point to Alum Bay, on the N.W. Coast of the Isle of Wight. Ann. Mag. Hist. 1851, vol. vii. pp. 14-27; Cotswold Club Proc. 1853, vol. i. pp. 87-100.
- On the *Strombidæ* of the Oolites (with the description of a new and remarkable *Pteroceras*, by John Lycett). Ann. and Mag. Nat. Hist. vol. vii. pp. 306-310; Cotswold Club Proc. 1853, vol. i. pp. 115-119.
- A Stratigraphical Account of the Sections of Hordwell Beacon, and Barton Cliffs, on the Coast of Hampshire. Ann. and Mag. Nat. Hist. 1851, vol. vii. pp. 433-446; Cotswold Club Proc. 1853, vol. i. pp. 120-133.
- On the *Udaridæ* of the Oolites, with a Description of some New Species of that Family. Ann. and Mag. Nat. Hist. 1851, vol. viii. pp. 241-280; Cotswold Club Proc. 1853, vol. i. pp. 134-173.
- On the *Cassidulidæ* of the Oolites, with Descriptions of some New Species of that Family. Ann. and Mag. Nat. Hist. 1852, vol. ix. pp. 81-103, 206-214, 294-316; Cotswold Club Proc. 1853, vol. i. pp. 174-226.
- Contributions to the Palæontology of the Isle of Wight. Ann. and Mag. Nat. Hist. 1852, vol. x. pp. 87-93; Cotswold Club Proc. 1853, vol. i. pp. 229-234.
- Contributions to the Palæontology of Gloucestershire. A Description of some New Species of Echinodermata from the Lias and Oolites. Ann. and Mag. Nat. Hist. 1854, pp. 161-173, 312-324, 376-383; Cotswold Club Proc. 1860, vol. ii. pp. 17-48.

- On Fossil Echinoderms from the Island of Malta, with Notes on the Stratigraphical Distribution of the Fossil Organisms in the Maltese Beds. *Ann. and Mag. Nat. Hist.* 1855, vol. xv. pp. 101-127, 175-196, 262-277; *Cotswold Club Proc.* 1860, vol. ii. pp. 124-127.
- On a New Genus of Fossil *Cidaridæ*, with a Synopsis of the Species included therein. *Ann. and Mag. Nat. Hist.* 1855, vol. xvi. pp. 94-100.
- On some New Species of *Hemipedona* from the Oolites. *Ann. and Mag. Nat. Hist.* 1855, vol. xvi. pp. 196-199; *Cotswold Club Proc.* 1860, vol. ii. pp. 125-130.
- On the Occurrence of Upper Lias Ammonites in the (so-called) Basement-Beds of the Inferior Oolite. *Brit. Assoc. Rept.* 1856 (pt. 2), pp. 80-82.
- On the Stratigraphical Distribution of the Oolitic Echinodermata. *Brit. Assoc. Rept.* 1856, pp. 396-404.
- On the Palæontological and Stratigraphical Relations of the so-called "Sands of the Inferior Oolite." *Quart. Journ. Geol. Soc.* 1856, vol. xii. pp. 292-325.
- Notes on the Fossils collected by Mr. Geikie from the Lias of the Isles of Pabba, Scalpa, and Skye. *Quart. Journ. Geol. Soc.* 1858, pp. 24-36.
- On the *Avicula contorta* Beds and Lower Lias in the South of England. *Brit. Assoc. Rept.* 1860 (pt. 2), p. 108; *Quart. Journ. Geol. Soc.* 1860, vol. xvi. pp. 374-411.
- Remarks on the "Roadstones" of Clevee-Hill. *Cotswold Club Proc.* 1860, vol. ii. pp. 184-187.
- On the Subdivisions of the Inferior Oolite in the South of England, compared with the equivalent Beds of that Formation on the Yorkshire Coast. *Quart. Journ. Geol. Soc.* 1860, vol. xvi. pp. 1-48.
- Geological Expedition to Swift's Hill and Rodborough (1860). *Cotswold Club Proc.* 1865, vol. iii. p. 21.
- The Oolitic Section at Leckhampton (1860). *Cotswold Club Proc.* 1865, vol. iii. pp. 26-52.
- Report on Miss Holland's Collection of Lias Fossils (1862). *Cotswold Club Proc.* 1865, vol. iii. pp. 153-156.
- On the Ammonites of the Lias Formation. *Cotswold Club Proc.* 1865, vol. iii. pp. 162-179, 235-245.
- On the Development of Ammonites. *Brit. Assoc. Rept.* 1864 (Sect.), vol. xxxiv. pp. 73-74; *GEOL. MAG.* 1865, Vol. II. pp. 86-87.
- On the White Lias of Dorsetshire. *Brit. Assoc. Rept.* 1864 (Sect.), vol. xxxiv. p. 75; *GEOL. MAG.* 1864, Vol. I. pp. 290-292.
- On the Fossil *Echinidæ* of Malta (1863). *Quart. Journ. Geol. Soc.* 1864, vol. xx. pp. 474-489.
- Table of the Stratigraphical Distribution of the Echinoderms of Malta (1863). *Quart. Journ. Geol. Soc.* 1864, vol. xx. p. 490.
- Additional Notes on Clevee-Hill Section (1865). *Cotswold Club Proc.* 1868, vol. iv. pp. 60-70.
- On Coral Reefs, Present and Past. *Cotswold Club Proc.* 1868, vol. iv. pp. 97-173.
- Notes on a New Species of Starfish from the Ironstone Beds of the Inferior Oolite of Northamptonshire. *Quart. Journ. Geol. Soc.* 1870, vol. xxvi. pp. 391-393.
- On the Geological Features of the Country round Ross. *Woolhope Field Club Trans.* 1870, pp. 45-50.
- On the Coralline Formations of the Oolitic Rocks. *Woolhope Field Club Trans.* 1870, pp. 52-53.
- On the Correlation of the Jurassic Rocks, in the Department of the Côte-d'Or, France, with the Oolitic Formations in the Counties of Gloucester and Wilts, England (1870). *Cotswold Club Proc.* 1872, vol. v. pp. 143-238; *GEOL. MAG.* 1870, Vol. VII. pp. 568-571.
- On a New Genus of Silurian *Asteriadae*. *Quart. Journ. Geol. Soc.* 1873, vol. xxix. p. 421.

MONOGRAPHS PUBLISHED BY THE PALÆONTOGRAPHICAL SOCIETY.

- Fossil Oolitic Echinodermata, vols. i. and ii., 1855-80, 65 plates, pp. 698.
 Fossil Cretaceous Echinodermata, vol. i. 1864-82, 87 plates, pp. 390.
 Liassic Ammonitidæ, vol. i. 1878-84, 90 plates, pp. 480.