

the Denbighshire, South Staffordshire, and Nottinghamshire coal-fields, as they are indistinguishable from the productive measures in the absence of Blackband ironstones. In each of these areas there are divisions in the Upper Coal-measures which correspond with the three highest divisions in North Staffordshire, and in all cases, except near the margin of the basin, where overlap occurs, they are underlain by ordinary Coal-measures with coal-seams. It is therefore concluded that these higher Coal-measures were deposited in one basin which included all the four areas dealt with, and that whatever movements occurred were of a local, and not of a regional character. Judging by published descriptions, the higher series of measures appear to be present in other Midland and North-Western coalfields, and in most of them the Keele Series corresponds to the Salopian Permian of Professor Hull.

O B I T U A R Y .

JOHN HOPWOOD BLAKE,

ASSOC. M. INST. C. E., F.G.S., OF THE GEOLOGICAL SURVEY OF
ENGLAND AND WALES.

BORN JULY 22, 1843.

DIED MARCH 5, 1901.

MR. J. H. BLAKE was a son of Mr. George John Blake, of the firm of Messrs. Allen & Blake, Wine Merchants, and was born in Great Tower Street in the city of London. After completing his education at King's College, London, he was apprenticed to Mr. R. P. Brereton, M. Inst. C. E., under whose directions he was engaged for several years with Mr. S. H. Yockney in railway work in Cornwall and South Wales. Having been attracted to the science of geology while at King's College, he became further interested in the subject during his engineering experiences, and was thereby tempted to join the Geological Survey in April, 1868, at a time when the staff under Murchison was considerably augmented. During the first few years of his official career he was engaged in the re-survey of portions of Somerset, along the Mendip and Polden Hills, at Shepton Mallet, Street, Chewton Mendip, and Axbridge, and subsequently at Watchet and Minehead. He was also occupied for a time in the first detailed Drift Survey of the area north-west of London. Later on he was transferred to Suffolk, to survey the country around Stowmarket, and that bordering the sea north and south of Lowestoft, whence he proceeded to Yarmouth and continued his investigations inland and along the coast as far north as Palling in Norfolk. Much time was then devoted to a careful study of the Forest Bed Series, and his published section of the cliffs at Kessingland, Pakefield, and Corton (1884) bears evidence of the painstaking character of his work. East Dereham then became his home, and much field-work was done in that part of Norfolk until 1884, when the primary one-inch Geological Survey of England was completed. Mr. Blake then removed to Reading, and was for many years occupied in the re-survey on the six-inch scale of that neighbourhood, giving

especial attention to the Drifts, which before had only been partially mapped. A few years ago he proceeded to Oxford, from which important and interesting centre he laboured with much quiet enthusiasm, until on March 5 he suddenly and quite unexpectedly succumbed to angina pectoris at the age of 57.

The record of his geological work is chiefly embodied in the geological maps of the districts he surveyed, and in sundry Survey memoirs. He contributed notes to the *Geology of East Somerset* (1876), to the *Geology of Stowmarket* (1881), the *Geology of Norwich* (1881), and the *Geology of London* (1889); and he personally wrote "The *Geology of the Country around East Dereham*" (1888) and "The *Geology of the Country near Yarmouth and Lowestoft*" (1890). He had also prepared, in conjunction with Mr. Whitaker, a *Memoir on the Water Supply of Berkshire*, which is in the press, and had made some progress with a *Memoir on the Geology of Reading*.

Mr. Blake's extra-official contributions to geological literature were by no means large considering his long experience. In 1872 he contributed (with H. B. Woodward) "Notes on the Relations of the Rhætic Beds to the Lower Lias and Keuper Formations in Somersetshire" (*GEOLOGICAL MAGAZINE*, Vol. IX, pp. 196-202). In 1877 he published in the same Magazine (Dec. II, Vol. IV, pp. 298-300) an article "On the Age of the Mammalian Rootlet-bed at Kessingland"; and in 1881 he contributed to the Proceedings of the Norwich Geological Society (vol. i, pp. 126-128) a paper on a "Well-boring at East Dereham Waterworks." To these may be added his addresses to the Norwich Geological Society (of which he was elected President in 1880-81), dealing with the Age and Relation of the so-called 'Forest-Bed,' and with the Conservancy of Rivers, Prevention of Floods, Drainage, and Water Supply; and also his Presidential Address to the Reading Literary and Philosophical Society in 1885, when he discoursed on the Coalfields of the United Kingdom with special reference to the Royal Commission on Coal. From 1885 until near the close of his life he conducted a number of excursions of the Geologists' Association, on three occasions to Reading, and on other occasions to Henley-on-Thames and Nettlebed, Taplow and Bowsey Hill, Lowestoft and Kessingland, Goring, and Silchester, reports of which were contributed to the Proceedings of the Association.

Mr. Blake's early training as an engineer had made him an excellent draughtsman, so that his maps and the sections he constructed were models of neatness and precision. This training in the exact methods of topographic surveys to some extent hampered his field-work, as his constant aim to secure positive evidence for geological boundaries led often to prolonged and inexpedient investigation. Thus he would return again and again to obscure tracts in the hopes of gaining exact information, a process theoretically laudable, but practically detrimental to the progress of work. This timidity in forming conclusions, perhaps to a certain extent constitutional, had proved such a serious bar to official advancement,

that it caused him grave anxiety. Imbued, however, with a true love of science he laboured on with infinite patience to the end, and it is distressing to think that he did not live to partake of the benefits which quite recently accrue to the Survey through a reorganization of the staff. Personally his colleagues and many others will long lament the loss of a genial and tender-hearted friend.

H. B. W.

MISCELLANEOUS.

INTERNATIONAL GEOLOGICAL CONGRESS, PARIS, 1900.—The pupils, friends, and admirers of Professor Albert Gaudry, who in 1852 started his scientific career with his “Thèse de Géologie: Sur l’origine et la formation des Silex de la Craie,” intend to present him with a commemorative medal. Whilst heartily associating ourselves with this proposal, we venture to suggest that something more might be done. In one of his books Professor Gaudry terminates the description of his new palæontological gallery with the following words:—“J’aimerais que, pour terminer notre galerie, on plaçât une statue représentant une figure humaine, figure douce et bonne, figure d’artiste et de poète, admirant dans le passé la grande œuvre de la Création et réfléchissant à ce qui pourrait rendre le monde encore meilleur.”¹ Apart from his eminent scientific attainments, Professor Gaudry has revealed himself as an artist and a poet as well, especially in his “Essai de Paléontologie philosophique”; and whoever has approached him can testify that the ‘douce’ and ‘bonne’ expression of his face truly reflects his character. We therefore think that his own bust would be the most suitable *couronnement d’édifice* of the palæontological gallery, which in the main is his own work.

PROFESSOR ALBERT GAUDRY, President of the International Geological Congress for 1900, announces that the Committee appointed by the International Congress of Geologists to award the International Spendiarioff Prize of 456 roubles (£48) has proposed as subject for 1903, “Critical Review of the Methods of Rock-classification.” Two copies at least of any work competing for the prize should be sent before August, 1902, to Dr. Charles Barrois, Secretary of the Congress, 62, Boulevard Saint-Michel, Paris.

ERRATUM.—*Brachylepas (Pyrgoma) cretacea*, H. Woodw.: GEOL. MAG., April, 1901, pp. 145–152, Pl. VIII.—Dr. Arthur Rowe, F.G.S., calls attention to an error in Dr. Woodward’s paper as to the locality of his new specimen of this Cirripede, which, like the original specimen described in 1868, was also obtained from the zone of *Belemnitella mucronata* in the *Norwich Chalk*, and all references to Margate and Thanet should be deleted and the word *Norwich* substituted.—EDIT. GEOL. MAG.

¹ A. Gaudry: “Les ancêtres de nos animaux dans les temps géologiques,” p. 296; Paris, 1888.