

OBITUARIES

Sir George Grierson, O.M., K.C.I.E.

SIR GEORGE GRIERSON, who died at Camberley on March 7 at the age of ninety, was the most distinguished of the select group of Indian officials who carried out invaluable philological, ethnographic or historical studies in addition to their official duties.

Before entering the Indian Civil Service in 1873, Grierson had already acquired an exceptional knowledge of Sanskrit and Hindustani. His early service was spent mainly in Bihar, where he made an intensive study of the local vernaculars. When he had been only ten years in the country, he published his "Seven Grammars of the Dialects and Sub-Dialects of the Bihari Language".

Grierson was nominated by the Government of India as its representative at the Congress of Orientalists held at Vienna in 1886. At this Congress, a resolution was passed urging the Government of India to undertake a linguistic survey. Some years elapsed before anything was done, but in 1894 it was decided to accept the suggestion, and Grierson was appointed superintendent of the Linguistic Survey of India. His first step was to obtain from each district a list of all the languages and dialects spoken in it, together with uniform specimens of each. The preparation of these specimens, in the case of the lesser known languages, had often to be entrusted to persons of inferior education, and they had to be subjected to most thorough scrutiny and revision before they could be accepted as correct. This preliminary operation lasted four or five years. The processes of digesting and collating the raw material thus provided necessarily took much longer. Each specimen had to be subjected to close analytical study in order to ascertain its grammatical structure and other peculiarities, and to decide whether it should rank as an independent language or a dialect, and to what linguistic family it should be assigned. The final stage was the preparation of a classified scheme of linguistic families, sub-families, languages and dialects, and the arrangement, editing and annotation of the specimens.

The "Introductory Volume" in which the final results were reviewed, was not published until 1927, thirty-three years after the inception of the work. The enormous labour involved will be understood when it is noted that, in all, 179 languages and 544 dialects have been recognized, and that the report extends over twenty bulky quarto volumes.

Many of the principal languages were, of course, already well known, and had been the subject of investigation by a number of scholars, notably Caldwell, Beames, Max Müller and Hoernlé. But even in their case, Grierson was able to establish new conclusions, including the differentiation of "Hindi" into three distinct languages, and the recognition of Lahnda as an independent language and not a mere dialect of Panjabi.

Among the lesser-known vernaculars he made an intensive study of Kashmiri and other Pisacha languages. Of the 132 Tibeto-Chinese languages examined, grammars and vocabularies had already been compiled only for about twenty; most of the others had never previously been reduced to writing.

The Linguistic Survey of India represents an unparalleled achievement. It has been universally recognized as such, and learned societies and universities in many different countries have vied with each other in showering distinctions upon the man responsible for it. Grierson's final honour was the O.M., which was conferred on him in 1928.

Grierson was the author of other books, too numerous to mention in a brief review, and of many papers in the journals of Oriental societies. Although languages were always his main preoccupation, his interests covered a very wide field. For example, his "Bihar Peasant Life" has been described as "an encyclopædia of information about the people of Bihar". He was for many years the mainstay of the Asiatic Society of Bengal and afterwards a leading member of the Royal Asiatic Society.

Apart from his great attainments and industry, Grierson's most marked characteristic was the unselfish assistance which he was always ready to give to other workers, however humble. I, myself, gratefully remember the trouble that he took, though I was then a stranger to him, in making my first contribution suitable for publication in the journal of a learned society. At the Census of India in 1901, and again in 1911, Grierson freely placed all the facts which he had until then ascertained at the disposal of the Census officers, so that they could utilize it in their reports, before he had himself published it. He gave immense help to the Bible Society in the preparation of vernacular versions of various parts of the Bible.

E. A. GAIT.

Dr. A. T. Masterman, F.R.S.

THE late Dr. A. T. Masterman was superintendent inspector of fisheries to the Board of Agriculture in 1910, when the Board took over the international fishery work of the Marine Biological Association. From then onwards Masterman directed the scientific fishery work of the Board, but his interest in the commercial possibilities of various scientific discoveries culminated in his relinquishing his post to engage in business enterprises. On the resumption of the scientific fishery work in 1920, the task of reorganization fell to Prof. Stanley Gardiner.

During his administration of the scientific branch of the Fisheries Department, Masterman found time to write three papers on the age and growth of various fresh- and brackish-water fish, all of which showed a balanced critical view of the technique, and among

which his paper on the salmon of the Wye should be known to all interested in salmon. He kept a large staff of scale-readers busy. He published also several important papers on the plaice fisheries of the North Sea.

In pure zoology Masterman will be remembered for his attempt in 1896-1901 to place the burrowing worm-like animal *Phoronis* near *Balanoglossus* and the vertebrate ancestry. The evidence came from the internal anatomy of the larva (*Actinotrocha*). This thesis was contested by many, including Roule, to whom Masterman replied with dash and vigour, but in 1904 de Selys Longchamps claimed to remove Masterman's edifice stone by stone. Ikeda, Goodrich and Shearer all disagreed with Masterman on one point or another. Although in 1910 Harmer in the *Cambridge Natural History*, put *Phoronis* in the Hemichordata on the basis of Masterman's observations, 'if confirmed', MacBride in 1914 in his "Text-book of Embryology" feared that Masterman's "fascinating" theory could not be upheld and put *Phoronis* with *Sipunculus* in *Podaxonia* (*Gephyrea nuda*). In the 1921 (revised) edition of Parker and Haswell's text-book *Phoronis* remains with the Brachiopoda and Polyzoa under Molluscoidea. However it ended, Masterman's initiative evidently led to substantial additions in knowledge of *Phoronis* and its interesting larva.

Masterman was seventy-two years old when he died on February 10, but, as may happen when reviewing the work of scientific workers who reached administrative posts early in life, the search for the man's own work is most productive when we go to the early years, in Masterman's case to the time when he was less than thirty years old. From 1893 until 1899 he was assistant to Prof. W. C. McIntosh at St. Andrews, and collaborated in a book that can be called a masterpiece, "The Life Histories of the British Marine Food Fishes", published in 1897. The only part of the book that is stated to be Masterman's separate contribution is a general chapter on growth, and this must be judged against its background, when almost nothing was known on the subject except for the papers which this young investigator had already published. The chapter, which is an essay, undoubtedly had considerable value forty-four years ago, when nothing was known of the technical methods that have been so fruitful in the intervening years, and the graphical method that Masterman used is still the only one available for some populations of fish. The main bulk of the book is stated to be joint work. It consists of notes on life-histories of no less than eighty-seven species of fish—a remarkable treatise to have been produced only a few years after the eggs and fry of many of the species had first been identified. To collaborate in that work was a worthy achievement.

Indeed, Masterman at St. Andrews was a member of a notable company who studied at the Gatty Laboratory and went out to make marine biology as we know it. Some of us who only knew the members as men of middle age and older, wonder what the company was like; but are certain that it was both gay and learned, for it included, at one time

or another, Holt, Prince, Kyle, Williamson, Calderwood, Wallace, Meek, and D'Arcy Thompson. To them Masterman, scholar of Christ's and Darwin Prizeman, brought the speculative turn of mind that is shown by his papers and the gift of lively companionship that his contemporaries recall.

M. GRAHAM.

Dr. William Doberck

WILLIAM DOBERCK was born at Copenhagen on September 12, 1852, and died at Sutton, Surrey, on January 5 of the present year. He had long been well known as one of the most enthusiastic and assiduous of workers in the field of double-star astronomy.

Dr. Doberck began his observations at Markree, Ireland, in 1874, at the observatory of Col. E. H. Cooper, at that time H.M. Lieutenant for County Sligo; but later worked in various parts of the world, including Kowloon. Eventually he settled at Sutton, where he set up an observatory equipped with a 6-in. refractor and continued his double-star measurements until 1927. His sets of measures, which were very numerous, amounting altogether to something like 13,000, were nearly all made with rather small instruments, but included several pairs of which the angular separation was less than 1". The observations at Markree were published in the *Transactions of the Royal Irish Academy*, vol. 29, part 13, and the remainder in various issues of the *Astronomische Nachrichten*. Eventually, Dr. Doberck collected them all together and published them in vol. 7 of the *Astronomische Abhandlungen*.

But Dr. Doberck was not only an observer; he was also a computer of orbits. In his book "The Binary Stars", published in 1918, Dr. R. G. Aitken referred to him as "the man who has investigated more double-star orbits than any other astronomer". Doberck also inquired into other problems relating to binaries, such as a possible parallelism of the orbit planes, in regard to which his investigation led him to a negative conclusion. He also at one time gave attention to variable stars. It is as an exceptionally diligent and successful student of visual double stars that he will always be remembered.

T. E. R. PHILLIPS.

WE regret to announce the following deaths:

Dr. E. J. Gwynn, formerly provost of Trinity College, Dublin, on February 10.

Dr. P. N. Leech, director of the Division of Foods, Drugs and Physical Therapy in the headquarters office of the American Medical Association, aged fifty-two.

Sir William Smyly, formerly master of the Rotunda Hospital, Dublin, and president of the Royal College of Physicians in Ireland, on March 19, aged ninety.

Dr. Michel Weinberg, of the Pasteur Institute, Paris, known for his work on parasitology and anaerobic bacteria.