

OBITUARIES

Prof. W. C. Brøgger, For.Mem.R.S.

DR. W. C. BRØGGER, professor emeritus of mineralogy and geology of the University of Oslo, died on February 17, at the age of eighty-eight. Born at Oslo (Kristiania) in 1851, Brøgger started his scientific career as a zoologist, but soon, through the inspiring influence of Th. Kjerulf, professor of mineralogy and geology, entered upon the study of the two subjects in which he was to accomplish so much. Before he was thirty years old, he received a call to Stockholm as professor, having already to his credit a large number of important papers on mineralogy, general geology and palaeontology. A particularly valuable publication of his early years is his treatise on "Die silurischen Etagen 2 und 3 im Kristianiagebiet, etc." (1882), where besides describing the stratigraphy and fossils of the Upper Cambrian and Lower Ordovician, he gave a preliminary, yet very comprehensive, survey of the igneous rocks of the district, a field of research which was to become the central one of his life. A most important geological paper from the Stockholm period is "Ueber die Bildungsgeschichte des Kristianiafjords", where the block-fault structure, with breccia and other accompanying phenomena, was demonstrated with exceptional clearness.

After the death of Kjerulf in 1890, Brøgger returned to Oslo as professor, and in the same year published what is probably his most famous paper, on the minerals of the syenite-pegmatite dykes of the Oslo area, especially of the Langesundsfjord in the southern part. This monograph of about 700 pages, coupled with his previous works, brought Brøgger the Murchison Medal of the Geological Society of London and other high rewards. It deals not only with a wonderfully rich variety of minerals, but also with wide petrological and geological problems, and has made the district classical, attracting to it great numbers of mineralogists and geologists from many countries, who often enjoyed the personal guidance in the field of Brøgger himself.

In the course of his long life, Brøgger continued to publish papers, especially on the alkaline rocks of the Oslo area, which furnished him with magnificent examples of rock differentiation and with material for the original description of very numerous and characteristic rock-types (lardalite, larvikite, nordmarkite, etc.). He showed the close chemical and mineralogical relation of the vast variety of rocks involved, occurring as plutonic bodies, as sills and dykes, and as lavas, with, in the main, a change from more basic to more acid types. Together with his assistant, and later on successor, J. Schetelig, he published a series of valuable geological maps of the Oslo area. Other of Brøgger's petrological studies dealt with Archæan rock-suites from southern Norway, and with a most interesting series of igneous carbonate-bearing rocks in the Fen district, just outside the Oslo area. The paper on the Fen rocks, reaching several hundred

pages in length, was published in his seventieth year.

It is a most imposing proof of the universality of Brøgger as a man of science that we also owe to him the largest and, we may add, the most important work, that has been published on the Quaternary geology of Norway, a book (published in 1900-1) dealing with the unconsolidated deposits occurring around the Oslo Fjord, with far-reaching conclusions on the geographical and climatic history of the district; and further, that he has given us the first full treatment (1905) of the relation of the Stone Age settlements to the varying height of the shore line in the same district—an achievement of fundamental importance to Norwegian archæologists.

Brøgger has not only in his personal research work been one of the most prominent men of science whom Norway has ever produced (his scientific honours could be counted in scores, including, among others, membership of the Royal Society and the Paris Academy of Sciences), but in addition, through his administrative abilities, he was able to promote Norwegian scientific life in general more than any other man. Of particular importance was his successful work in establishing a great number of funds for scientific research, some of them very large, together with his activities on behalf of the University at Oslo, which resulted in a number of new appointments, new buildings (including the natural history museums), etc. Brøgger was also, as a matter of course, for decades the central and leading personality in the Academy of Sciences at Oslo, the activities of which owed much to him in different ways.

Brøgger was a man with wide interests outside the realm of science. It is perhaps worth mentioning just now that so long ago as 1899 he was one of a committee of six outstanding representatives of European intellectual life who in St. Petersburg requested an audience with the Czar of Russia, in order to lay before him an address, signed by more than a thousand prominent men, in protest against new and oppressive regulations towards Finland. They were not granted an audience, but their effort gained for them the lifelong gratitude of the Finnish people.

OLAF HOLTEDAHN.

Prof. E. Mapother

PROF. EDWARD MAPOTHER, who died on March 20 at the age of fifty-eight, had been medical superintendent of the Maudsley Hospital since its opening. Under his wise and energetic control, it became the chief post-graduate centre of psychiatry in Great Britain. Mapother was selected to fill the newly created chair of clinical psychiatry in the University of London, tenable at the Maudsley, in 1936. This was a personal appointment, which he continued to hold after he had resigned from his post as superintendent of the Hospital last December; it was an

acknowledgment of the remarkably effective and far-sighted way in which he had used his position, from the beginning, to further psychiatric teaching and research.

Very great importance was attached by Mapother to this side of his work, and he felt strongly that it demanded the full time of one man, though it had been impossible for him to give it full time because of his administrative duties as superintendent, which were heavy. He fretted constantly at the restrictions which his other work imposed upon what he felt he ought to be doing in this regard, and more than a year ago he drew up a plan for the reorganization of the staff of the Hospital, which provided for the permanent separation, in different hands, of his two main functions. Owing to his tireless energy he accomplished much more, however, than he believed; and the influence of his teaching and of his guidance of the general lines of research was far-reaching.

Mapother was himself first and foremost a clinician; and all his investigations were primarily clinical, for example, into alcoholic morbidity, the mental effects of head injury, and the neuroses of war. He understood very well, though, that research must be conducted along many lines, somatic, psychological and social, if knowledge in this conspicuously difficult and complex subject was to be advanced, and he sought constantly to synthesize neuro-physiology and psychology. He recognized two important needs: to bring into psychiatry first-class men, and to ensure that they should have a good training both in clinical psychiatry and in whatever scientific methods they were going to apply to psychiatric problems. He was aware that, in the past, fewer able men have been attracted towards psychiatry than towards other fields in medicine, and he thought that the best way to remedy this was to build up an outstanding university centre the achievements of which, especially in research, would influence the standards and reputation of psychiatry. Through the help of the Commonwealth Fund of America, and especially of the Rockefeller Foundation, he was able to carry this project a long way; the London County Council showed a generous understanding of the value and importance of Mapother's efforts, which could not have been realized without its concurrence.

Mapother was a remarkably good judge of men, as was inevitable in so penetrating a clinical psychiatrist; he saw through empty professions and slipshod efforts, but was critically appreciative of good work. He therefore succeeded in gathering around him a group of able men who were glad to work under the conditions available at the Maudsley. He was determined that there should not be dilettante research in his hospital. He had seen the harm done by this, both in the more academic forms of research and in investigations into clinical problems, and he was careful, in the selection and training of his staff, to ensure that they should be thoroughly competent in the research methods employed. To his insistence on this must be largely attributed the high level of the research done under his stimulus and direction. He was happy to know, in the last few months of his

life, that the War had not led to the disintegration of his staff, but that they were working, in the two hospitals to which they had removed, on those problems of psychiatry arising in war, to which he had himself paid so much attention.

Mr. E. T. Cottingham

SCIENCE, and more particularly the precision time measuring side, loses in the death of Mr. E. T. Cottingham one of the few outstanding men of Great Britain engaged in this research.

He was born at Ringstead, near Thrapston, and, although originally apprenticed to a tailor, his love for mechanical timepieces overcame his father's desires, eventually giving to Mr. Allen the task of teaching him to be a clockmaker in the village of Thrapston, where the whole of his life was spent.

Throughout, his interest has not been centred on one problem, for so varied were they that a few, such as church clocks, sewage pumping machinery, and fitting the surrounding blast furnaces with pyrometers, etc., occupied his attention. The proximity to Cambridge naturally gave him other problems which he so loved to solve. The advent of radio enrolled him as an early student and pupil and, I believe, he was one of the first to install his experimental set, dated October 1912. Wireless and time signals being inseparable, and from this to astronomical time-keeping, the care of the instruments at Greenwich in due course followed. He was also invited and accepted the invitation to accompany Sir Arthur Eddington in 1919 to Principe on the eclipse expedition. He will always be remembered for his simplification of the principles of Dr. Reifler's escapement, and the models he has left in the various observatories of the world stamp him as a genius in design and craftsmanship where simplicity is the keynote.

FRANK MERCER.

WE regret to announce the following deaths:

M. Nicholas Arnold, honorary general administrator of the Belgian Colonies, who had a large share in the development of the Congo under Belgian auspices, especially from a horticultural and botanical aspect.

Sir George Buchanan, K.C.I.E., consulting engineer especially concerning harbour, docks and river works, on April 14, aged seventy-four years.

The Right Hon. H. A. L. Fisher, O.M., F.R.S., warden of New College, Oxford, on April 18, aged seventy-five years.

Dr. A. C. Haddon, F.R.S., emeritus reader in ethnology in the University of Cambridge, on April 20, aged eighty-four years.

Prof. Heinrich Preiswerk, visiting professor of mineralogy in the University of Basle, aged sixty-four years.

Prof. W. R. Scott, F.B.A., Adam Smith professor of political economy in the University of Glasgow, on April 3, aged seventy-one years.