

Lower Tertiary system, extending his work afterwards to the younger beds in the Burma oil-fields.

South Kensington students will remember him as a brilliant pianist who would have had a distinguished position in the musical world if he had not concentrated on the palæontology of India. During his early days in India he showed a tendency to become engrossed in archæological interests until palæontology claimed him first as a devotee and finally as a victim.

COUNT FERNAND DE MONTESSUS DE BALLORE.

THE small band of seismologists has suffered a serious loss through the death of M. de Montessus de Ballore. Born in 1851, he was trained at the École Polytechnique, where he was a fellow-student of Marshal Foch. In 1881 he was sent as chief of a military mission to San Salvador. There he became interested in the frequent earthquakes of the Central American republics, and he continued his seismological studies on his return to Paris as Directeur des Études at the École Polytechnique. In 1907 he was appointed director of the earthquake-service in Chile, a service which, through his efforts, became one of the first rank.

De Montessus will be chiefly remembered and valued for his studies on the distribution of earthquakes. His great work on "Géographie Séismologique," which occupied his leisure for twenty-four years, was published in 1906. Few men could be so well qualified as he for an undertaking so vast, for he had a good knowledge of six foreign languages. Having collected records of nearly 160,000 earthquakes, he showed that seismic regions follow the principal lines of relief, that, in a group of unstable regions, the most unstable are those of the greatest relief, and that more than 90 per cent. of the earthquakes occurred along two narrow zones occupying great circles of the earth, which he called the Mediterranean circle and the circum-Pacific circle. In 1907 his second work, "La Science Séismologique," appeared and at once took its place as an authoritative treatise.

Besides these two volumes and a small popular book published in 1911, de Montessus was the author of many memoirs. One of the latest was a bibliography of seismology containing the titles of more than 9000 books and papers. In the preparation of these works, he had collected a library, perhaps the most extensive of the kind in existence. This was bought a few years ago by the late President J. C. Branner, and was presented by him to the University of California. C. D.

PROF. M. ABRAHAM.

THE issue of the *Physikalische Zeitschrift* for February 1 contains an obituary notice of Prof. Max Abraham by Profs. M. Born and M. v. Laue. He was born at Danzig in 1875 and studied under Planck at Berlin. After graduating he became Planck's assistant, and in 1900 privatdozent at Göttingen. For a short time in 1905 he acted as professor at the University of Illinois, and, after his return to Göttingen, was in 1909 appointed professor of theoretical physics at Milan. The War ended this, and he held temporary posts till last year, when he was appointed professor of theoretical mechanics at Aix-la-Chapelle. Illness prevented him commencing duties there, and he died of tumour on the

brain on November 16, 1922. He was well known in this country for his book "Theorie der Elektrizität," for his articles on vectors and on electromagnetic waves in the "Mathematische Encyclopädie," and for his papers on the dynamics of electrons, all giving evidence of a clear and logical mind.

WE regret to learn from Australia of the death, at the end of January, of Dr. J. L. Glasson, at the age of thirty-four years. Dr. Glasson was a student of the University of Adelaide, where he worked under Sir William Bragg, and from that University he received his doctor's degree. He succeeded in winning a travelling research scholarship of the Exhibition of 1851, and with it came to this country. He entered Gonville and Caius College, Cambridge, in 1909 as an advanced student, and, going to the Cavendish Laboratory, did valuable research work under Sir J. J. Thomson. In 1912 he was appointed lecturer in physics in the University of Tasmania, Hobart, and while there he did valuable work for the Electrolytic Zinc Co. and for the Tasmanian Carbide Co. This post he resigned in 1919, returning to Cambridge for research for a couple of years, after which he accepted an appointment as lecturer in physics in the University of Melbourne, which he held at the time of his death.

THE sudden death from angina pectoris on March 15 of Mr. G. E. Bullen, Curator of the Herts County Museum at St. Albans, is announced. Among the smaller museums in the country there can be few which have been raised to such a pitch of excellence, and this has been due entirely to the whole-hearted devotion and enthusiasm of Mr. Bullen during the past twenty years. A considerable extension and rearrangement of the collections has recently been completed, and, especially on the archæological side, the museum is now a model of what a local museum should be, the clear demonstrative labelling of the exhibits being a special feature. Mr. Bullen's work had been for some time carried on in defiance of indifferent health, and his death at the early age of forty is a great loss.

THE *Chemiker Zeitung* of March 17 announces the death in the beginning of March of Prof. Robert Scheibe, formerly professor in the Academy of Mines, Berlin, and later active in South-west Africa and Bolivia. In the issue of March 15 the death on March 10 of Prof. Ernst Salkowski, since 1880 director of the chemical side of the Berlin Pathological Institute, is announced. Prof. Salkowski was born on October 11, 1844, in Königsberg, and at first worked with Virchow. His researches covered a wide field in physiological chemistry.

WE regret to announce the following deaths:

Dr. H. H. Stoek, professor of mining engineering in the University of Illinois since 1909, on March 1, aged fifty-seven.

Dr. John Venn, F.R.S., president of Gonville and Caius College, Cambridge, and for many years lecturer in logic and moral philosophy in the University, on April 4, aged eighty-eight.

Mr. S. H. Wells, director-general of the Egyptian Department of Technical, Industrial, and Commercial Education since 1907, on March 28, aged fifty-seven.