the cloud, such as the ice-friction process, giving a negative potential gradient, and the raindrops falling in this potential gradient acquire a positive charge as described in Wilson's theory. Calculations showing the orders of magnitude of the currents and potential gradients have been given by Chalmers and Little[3]. In order to give an account also of the Eiffel Tower observations, we might add the breaking-drop process occurring near the earth's surface, but difficulties and anomalies remain, and it may be that conditions near the Eiffel Tower are peculiar.

A great deal remains to be done to confirm or disprove the ideas described above; among investigations that would be profitable may be suggested the measurement of rain currents and potential-gradients under conditions similar to those of the Eiffel Tower, the measurement of rain currents and point-discharge currents using as discharger one of the trees of a plantation of similar trees, the measurement of potential gradients at various heights with a more sensitive alti-electrograph, and the repetition of Wigand's measurements when rain currents and potential gradients are simultaneously measured.

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OBITUARIES

Prof. B. Malinowski

ANTHROPOLOGY has suffered a great loss by the death of Prof. Bronislaw Kasper Malinowski at Yale on May 16. Holding an international reputation in his field, he was a scientific worker with a subtle and constructive theoretical mind, a teacher who was stimulating to the highest degree, and a man of striking and in many ways most attractive personality.

Born on April 7, 1884, in Poland, Malinowski was first educated at the King Jan Sobieski Public School and later at the University of Cracow, where he graduated Ph.D. *summa cum laude* in 1908. Intending to do research work in physical science, he was prevented by the ill-health which interfered with his work all his life, and later turned to the social sciences, which he studied for a while at Leipzig under Karl Bücher. In 1910 he came to England, and as a student of the late C. G. Seligman began that long association with the London School of Economics and with British anthropology which proved so fruitful for the science he adopted.

At the London School of Economics he became a lecturer in 1913, but went with the Robert Mond Anthropological Expedition to New Guinea in 1914, and carried out field-work there, with intervals in Australia, until 1919. Returning to Europe in 1920, he again took up a post at the London School of Economics in 1921, and remained a member of the staff until his death, being appointed to the newly created chair of anthropology in the University of London in 1927. His links with the United States of America, however, had been many since his first visit there in 1926 at the invitation of the Laura Spelman Rockefeller Memorial. In 1936 the degree of Honorary D.Sc. was conferred upon him by Harvard University, and in 1939 while on leave in America he participated in the teaching at the Department of Anthropology at Yale University, where he became Bernice P. Bishop visiting professor for 1941–42.

As a writer and teacher Malinowski had a profound influence on the development of anthropological thought and research, not only in Great Britain but also abroad. He was not a systematist, and had little interest in the minutiæ of comparative investigation; he attacked, often wittily and sometimes violently, work of historical reconstruction on one hand and of pure technological analysis on the other. But to social anthropology, which he regarded simply as a branch of sociology, he contributed extensively both in methods of research and in fundamental generalizations. His name will always be associated with the "Functional Method", which however much it owed to Durkheim and the school of *L'Année Sociologique*, was by Malinowski re-formulated, developed, christened (complete with capitals) and forged into a powerful instrument for the analysis of cultural relationships and as a basis for a technique of field research. In its broadest sense indeed, under Malinowski's skilful handling, it became not merely a method of studying social phenomena but also an integrative set of generalizations about them and their inter-relations, based upon assumptions about the fundamental drives to human behaviour—in short, it was almost a philosophy of human culture. As such, it invited criticism while it spurred to further investigations. It also awoke interest in circles far beyond those of anthropology alone, bringing into touch studies of social institutions, of political organization, of religion, of technology, and of language.

The stimulus of Malinowski's writings and teaching was manifold. Not since Sir James Frazer has any other anthropologist in Great Britain so struck the imagination of a wide range of readers both here and abroad, by the combination of a vivid rich style, a breadth of treatment and a dramatic subject-matter. His first considerable work, "Argonauts of the Western Pacific", treating of the elaborate ceremonial exchange system of the Trobriand Islanders, and their magic rites, appeared in 1922. This was followed by "Crime and Custom in Savage Society", and "Myth in Primitive Society", in 1926; and "The Father in Primitive Psychology", and "Sex and Repression in Savage Society", in 1927, all based on his long period of intensive research in the same area. In 1929 appeared his best-known work, "The Sexual Life of Savages in North-western Melanesia". His last major publication, "Coral Gardens and Their Magic", appeared in two volumes in 1935. This, less widely read than the other books, is unexampled in its detailed analysis of a primitive agricultural system and its associated ritual; moreover, it contains an elaborate exposition of his theory of meaning in language, especially in magical language, a subject in which he had always a keen interest and to which he made a notable contribution.

As a teacher Malinowski was brilliant, giving of himself unsparingly, and treating his class not as pupils but as co-workers. More and more in later years he tended to abandon the formal lecture for a free discussion in the Socratic style, enlivening it by his flashing wit, and driving home a point in any one of half a dozen European languages to suit the

members of the cosmopolitan group usually assembled around him.

But Malinowski's interests were not purely academic. He firmly believed that the test of a science in the last resort is its applicability to practical affairs. He tackled the problem in a systematic way, and in his training of government officials and missionaries and in his work for the International Institute of African Languages and Cultures, and the British Social Hygiene Council, he was one of the first to demonstrate the value of applied anthropology for Colonial affairs.

In all this, his gifts as a scientific worker and a teacher were closely bound up with his personality. To his powerful intellect were allied a great breadth of culture and charm of manner. His emotional hypersensitivity sometimes led him to harsh judgments of men and their motives, but his acute sense of values, his fundamental lack of affectation and his real humanity made his friendship a privilege and gave a richness to all his personal contacts.

RAYMOND FIRTH.

Prof. H. L. Bowman

DR. HERBERT LISTER BOWMAN, who retired from the chair of mineralogy at Oxford in July 1941, died unexpectedly in a nursing home at Oxford on April 22 at the age of sixty-eight.

Born on March 15, 1874, Bowman was educated at Eton College and New College, Oxford, where he took the Final Honour Schools of Natural Science in chemistry in 1895 and in physics in 1896, and proceeded to his M.A. in 1895 and to the D.Sc. degree in 1908. He became attracted to the study of minerals through the teaching of Prof. (now Sir) Henry A. Miers, who had been appointed professor of mineralogy in 1895 in succession to M. H. N. Storey Maskelyne, who had occupied the chair for thirty-nine years.

During the latter part of 1896 and in 1897 Bowman was engaged in research work and also devoted much time to helping in the rearrangement and registration of the mineral collection and in the development of several special exhibits in the Oxford Museum. In 1898 he went to Munich to study under Prof. Groth, and after spending eight months there and in visiting famous mineral collections in Germany and Austria, he returned to Oxford and was appointed demonstrator in mineralogy. During these years he also gave much help in the development and equipment of the Mineral Department at Oxford, which had no laboratory accommodation previous to 1895, and throughout his life he devoted much thought and time in this direction. Bowman was appointed Waynflete professor of mineralogy early in 1909 in succession to Prof. Miers, the appointment carrying with it a fellowship at Magdalen College. The title was altered in 1927 to include crystallography in recognition of the importance of that subject.

Bowman was a very painstaking and accurate research worker and teacher, and those who studied under him will remember his kindness and his patience and the help and advice which he always gave so readily. Most of his published researches deal with the chemical and physical properties of minerals and their modes of occurrence and were published in the *Mineralogical Magazine*, and his keen interest in meteorites is shown in the detailed examination of the Chandâkapur and Dokáchi stones which he carried out in collaboration with H. E. Clarke and the results of which are contained in two papers also published in the *Mineralogical Magazine*. He also undertook the revision for the second edition of the standard text-book Miers' "Mineralogy" which was published in 1929.

An ardent collector of minerals, Bowman took part in Oxford expeditions to many English mineral localities, went with the British Association to South Africa and the International Geological Congress to Canada and Sweden. He also visited Switzerland annually for many years, and the Oxford collection is the richer by many specimens collected and presented by him. He inherited a keen interest in music and botany from his father, Mr. J. H. Bowman of Greenham Common, Newbury, and Dr. and Mrs. Bowman had been enthusiastic members of the Oxford Orchestral Society for many years. He also had great mechanical ability, and during the War of 1914–18 he did munition work in Birmingham. He devoted much time and thought to the designing and improvement of apparatus used in his department and introduced many novel experiments into his lectures.

To those who did not know him well, Bowman may have seemed reserved and shy, but he was an extremely kind and unselfish man, always ready to discuss problems and difficulties, and those who knew him intimately will remember him with great affection. He undertook many administrative duties at different times; thus he had served as Recorder of the Geological Section of the British Association, secretary to the Delegates of the University Museum, Oxford, vice-president of Magdalen College and of the Mineralogical Society. This left him little time for research work, but it was his intention, following his retirement, to take up active research again in his old department; his untimely death is a sad blow to his many friends.

In 1921 he married Pleasance Edith, daughter of Mr. James Walker of Kempsey, Worcester (under whom he studied physics in the Clarendon Laboratory at Oxford), and their married life was one of ideal companionship and perfect happiness.

R. C. SPILLER.

IT has been announced that among the Czechoslovak patriots recently executed by the Germans are a university dean and two professors, several secondary schoolmasters and a number of young men described as university students, although the universities have been closed for nearly two years. One of the professors was Prof. Jaromir Šamal, formerly professor of entomology in the Prague College of Agriculture, whose work had considerable local importance through his books in Czech on the anatomy and life-history of insects, on their ecology and their economic importance; Dr. Šamal was forty-one years of age.

WE regret to announce the following deaths:

Captain J. D. S. Pendlebury, formerly curator of Knossos and author of works on the archæology of Crete and Egypt, during the invasion of Crete in 1941, aged thirty-six.

Dr. George A. Reisner, professor of Egyptology at Harvard and curator of the Egyptian Department of the Boston Museum of Fine Arts, on June 6, aged seventy-four.

Prof. James Joseph Walsh, professor of physiological psychology at Cathedral College, New York, and medical director of the School of Sociology at Fordham University, aged seventy-seven.