

on the assumption that the roughly homogeneous conditions observed at the present day have persisted through the past history of the universe. It is scarcely necessary to emphasize the speculative and provisional nature of such extensive extrapolation.

<sup>1</sup> Haldane, J. B. S., *Nature*, **153**, 155 (May 6, 1944).

<sup>2</sup> Eddington, A. S., "The Combination of Relativity Theory and Quantum Theory", *Dublin Inst. Adv. Studies*, A, No. 2 (1943).  
A summary of the astronomical implications of the theory appeared in the *Observatory*, **65**, 209 (August 1944).

<sup>3</sup> Robertson, H. P., *Rev. Mod. Phys.*, **5**, 22 (1933).

<sup>4</sup> Hubble, E., *Astrophys. J.*, **84**, 517 (1936).

<sup>5</sup> McVittie, G. C., *Proc. Phys. Soc.*, **51**, 529 (1939).

<sup>6</sup> Milne, E. A., *Proc. Roy. Soc.*, A, **158**, 324 (1939); **159**, 171 (1939).

<sup>7</sup> McVittie, G. C., *Z. Astrophys.*, **14**, 312 (1937); **16**, 21 (1938).

## OBITUARIES

### Prof. G. F. Stout

By the death in Sydney of Prof. G. F. Stout, emeritus professor of logic and metaphysics in the University of St. Andrews, at the age of eighty-four, British philosophy and psychology have lost one of its most representative and distinguished figures. A first class in the Classical Tripos in Cambridge in 1882, followed in the next year by a first in the Moral Sciences Tripos, seem, on the face of it, strange preparation for a man who was to become a dominant figure in British psychology for the next two generations, and who, as late as 1936, after fifty years of academic life, could enter into equal fray with the new *Gestalt* experimental psychologists from Germany. But three further factors must be taken into account: the presence of Ward at Cambridge, the nature of British philosophy and Stout's own penetrating insight. That Ward was one of the dominating influences in his life, Stout himself was ever ready to admit. Ward's article on psychology, in the "Encyclopædia Britannica" of 1885, ultimately embodied in his "Psychological Principles", was the precursor of Stout's "Analytic Psychology" (1896) and his "Manual of Psychology" (1898), and both these latter books bear the marks of this influence. But both Ward and Stout were following in the clearly marked tradition of British psychologists and philosophers from the seventeenth century onwards, and Stout himself was, until his death, the ablest survivor of a type of philosophy which included Locke, Hume, the two Mills and the Scottish school.

Neither Ward nor British tradition, however, can account for the fact that a text-book on psychology written nearly fifty years ago is still, despite the many changes in technique and outlook, an indispensable work for teachers and students alike. Here two points call for comment. The first was Stout's superb intellect, with its keen insight into philosophical and psychological problems, and the second, his freshness of mind, which never lost its interest in his subject and enabled him to revise one edition after another.

Stout left Cambridge in 1897 and was for two years lecturer in Aberdeen in comparative psychology and for four years Wilde reader in mental philosophy at Oxford. In 1903 he was appointed to the chair at St. Andrews. From this period his writings were, in the main, on epistemology and metaphysics. In the former, the influence of Plato, and particularly the Theatetus and Sophist, is obvious; in the latter, his animism and his views on the body and mind are

Spinozistic. But Stout was never merely a copy of any other thinker; his originality was too strong for that: and for this same reason, although his knowledge of philosophical literature was astounding, he was not a mere scholar. He was a thinker first and always, and in his reading he both re-thought and re-moulded. It is not possible in a short notice to go into details of Stout's philosophy, but I hazard the opinion that if readers of *Nature* would ponder the Gifford Lectures (Stout, "Mind and Matter", 1931) of a former editor of *Mind* (Stout edited *Mind* from 1891 until 1920) British scientific philosophy would be a far better thing than it is at present.

To the bulk of St. Andrews students—Stout, in the main, lectured only to a small number of advanced students—and to most members of the staff he was a mythical figure, spoken of with awe and around whom legends and anecdotes were spun of a recluse living in a rarified atmosphere of pure thought. Those of us who worked with him and who talked and walked with him for many years knew what a caricature this was. In addition to his extensive knowledge of philosophical and psychological literature, Stout was one of the best read men of a reading generation, in literature, history and in many branches of science, and his judgment of men and affairs was unerring. He seemed to have read (and to remember) everything, and he showed the same penetrating insight in his judgment on affairs that characterized his professional work. Those who only know the latter never really knew Stout, who will always be remembered by his friends as a man who not only gained the highest distinction in his own branch of study but who had also assimilated the matter and spirit of European culture from the Greeks downwards. Even among academics he was an aristocrat. We of a later generation knew that, as did men like Ward and Bradley of his own.

J. N. WRIGHT.

### Dr. E. N. Miles Thomas

WITH the death of Dr. E. N. Miles Thomas on August 8, there passed one of the most brilliant women botanists of the century. Educated at the Mays High School (Home and Colonial School Society), she studied also at University College, London (where she was later made a fellow) and at the Imperial College of Science and Technology. Her contact with Miss Ethel Sargent, to whom she acted as research assistant (1897–1901), and with Mr. (later Prof.) A. G. Tansley was probably responsible for her life-long devotion to problems of seedling anatomy.

Her appointment as lecturer at Bedford College in 1908 marked the inauguration there of a separate Botanical Department, and in 1912, she was also awarded the status of reader in the University of London. The Department made rapid progress under her vigorous leadership and was already well established in the new premises of the College in Regent's Park when war broke out in 1914. Like others, Dr. Thomas felt the urgency of war claims, and when her appointment terminated in 1916 she became an inspector of the Women's Land Army for London and the Home Counties. Afterwards she became acting head of the Botanical Department in University College, Cardiff, during 1918–19 and keeper of the Department of Botany in the National Museum of Wales during 1919–21. In 1923, she was appointed lecturer in biology at University College, Leicester,

a position which she held until her retirement in 1937. Her activities in these various spheres were tireless, but as a life member of the British Association for the Advancement of Science, she also took part in many of the meetings, including those of Australia (1914), Canada (1924), and South Africa (1929); also acting as recorder (1920, 1921) and vice-president (1933) to Section K. She was elected fellow of the Linnean Society in 1908 and served on the Council during 1910-15. She was deeply interested in questions affecting the professional status of women workers. She also tried to promote the formation of a central botanical research institute; but the funds collected were insufficient and were used in furtherance of research by other means. She had friends in many lands, and in 1924 served, appropriately, on the executive committee of the Imperial Botanical Conference.

Dr. Thomas's published work included double fertilization (*Ann. Bot.*, 14; 1900); anatomy of

*Acrostichum* (*New Phyt.*, 4; 1905) and a series of articles on seedling anatomy, reinforced by those of some of her students. Her name is especially associated with the theory of the double leaf-trace (*New Phyt.*, 6; 1907); but the trend of her views on more general questions of seedling anatomy is clearly indicated by a series of summaries (British Association Reports for 1906, 1914, 1923 and 1924) as well as by longer articles (*Ann. Bot.*, 1914; *Proc. Linn. Soc.*, 1923). She had hoped to develop these researches further, but failing health and other circumstances prevented her from bringing her work to full fruition. On her breakdown in 1940, her slides, records, etc., were catalogued and placed in the Jodrell Laboratory, Kew. She was married to Mr. H. H. F. Hyndman, but his sudden death in 1934 brought to an untimely end a particularly happy union. The shock, though faced with characteristic courage, was undoubtedly one of the causes precipitating her final breakdown.

## NEWS and VIEWS

### British Non-Ferrous Metals Research Association : Retirement of Dr. Harold Moore, C.B.E.

DR. HAROLD MOORE, who will retire from the position of director of the British Non-Ferrous Metals Research Association on October 31, has occupied that position for the last twelve years. Dr. Moore is a native of Middlesbrough, and received his metallurgical training from the late Dr. J. E. Stead, taking a London degree. After two years in a Northamptonshire blast-furnace works he joined Messrs. Beardmore at their Parkhead works, where he was engaged on problems of armour-plate manufacture. In 1904 he became chief metallurgist in the Research Department, Woolwich, being given the title of Director of Metallurgical Research in 1919. Besides controlling a staff engaged in research on armaments, he did valuable work on the development and interpretation of the hardness test, and in collaboration with S. Beckinsale published an important investigation on the season cracking of brass, work which arose out of difficulties with cartridge cases, but was the starting point of a study which has been actively taken up by others.

Dr. Moore was awarded the C.B.E. in 1932, in which year he was appointed to succeed Dr. R. S. Hutton as director of the British Non-Ferrous Metals Research Association. During his tenure of the directorship the equipment and staff of the laboratories in Euston Street have grown considerably, and many investigations of great value to the non-ferrous metals industry have been carried out. Dr. Moore has from the beginning taken an active part in the work of the Institute of Metals, of which he was president during 1934-36. In 1943 he received the Platinum Medal of the Institute. He has also served on many councils and committees concerned with metallurgy. In all these capacities his personal qualities have contributed largely to the smooth working of research organizations.

### Royal Holloway College : Chair of Mathematics

THE chair of mathematics at the Royal Holloway College, vacant through the resignation of Prof. Bevan Baker, has been filled by the appointment of Prof. W. H. McCrea. Since 1936 Prof. McCrea has

been professor of mathematics at the Queen's University, Belfast, but for some time has been on leave in London on war service. Prof. McCrea had previously been an appointed teacher in the University of London, while holding an assistant professorship at the Imperial College during 1932-36, and during that time he took an active part in the scientific life of London, particularly in connexion with the Royal Astronomical Society. In addition to being an excellent teacher to university students over a wide range of mathematical ability and interest, his scope as a researcher is unusually extensive. He is specially distinguished for his researches in astrophysics, to which he has contributed many fertile ideas. His theory of the solar chromosphere, modifying an earlier theory by Prof. E. A. Milne which attributed the main support to selective radiation pressure, is generally accepted, and includes pioneer work that first showed the importance of turbulence for the structure of the sun's atmosphere. He also constructed a model of a stellar atmosphere based solely on physical as distinct from astronomical data, thereby initiating a method of investigation afterwards widely followed. Among his other astrophysical researches are a theory of the ejection of matter from 'new' stars (novæ), and a study of the drag of one gas on another through which it is streaming. Prof. McCrea has also shown marked originality in other fields, which include the quantum theory of specific heats and of quadrupole radiation, cosmological relativity theory, wave-tensor calculus, and differential and difference equations.

### New Chair of Geography at McGill University

MR. GEORGE H. T. KIMBLE has been appointed first professor of geography and head of the newly created Department of Geography in McGill University. Until the outbreak of the War, when he volunteered for the Naval Meteorological Service, Mr. Kimble was lecturer in geography in the University of Reading. He took his bachelor's and master's degrees at King's College, London, during 1927-31, where he studied under Prof. Ll. Rodwell Jones and the late Prof. A. P. Newton, and did his early work in historical geography. The results, so far published,