

included protozoology (trypanosomes, malaria parasites, amœbæ), helminthology (schistosomes, filariæ, hookworms, guineaworm), entomology (mosquitoes, Ceratopogonine midges and other arthropods), and fungi ('*Nocardia*' or *Discomyces*). His articles and annual reports were written in a clear and attractive style, at times with a whimsical touch, and illustrated with excellent photographs taken by himself; an examination of paper money in Accra, for example, was recorded under "Filthy Lucre". He was much in favour of closer association between research workers in the Colonies and those in Britain, and even thought that a tour of duty might well be shortened by a month to be spent in one of the home laboratories.

It was my privilege to work with Macfie and his friend and colleague, the late Dr. Alexander Ingram, at the Accra laboratory nearly thirty years ago, and I then formed a very high opinion of his personal qualities. He was devoted to research, while not neglecting routine, and his outlook was quite uncommercial and free from self-interest. Though rather shy and reserved, he would firmly resist any moves which he thought would impair the efficiency of his department. The Gold Coast Government once offered him £500 in recognition of his work; but he declined it, saying that the laboratory work was done by the whole staff, and suggested that the money be given to assist further research. His health was never good and he could not stand a long tour of residence; but every day was filled with work and he grudged the loss of time when, as sometimes happened, interruptions were too frequent. He entered little into the general social life at Accra, but liked to entertain a few friends; as he was an excellent host and good companion, such occasions were very enjoyable. He took a great interest in original work by junior men, and would write helpful and encouraging letters to those working alone in out-stations. He was kind and sympathetic to his servants and staff and was liked and respected by them as, indeed, he was by all who knew him. His "Ethiopian Diary" is characteristic of the man.

J. F. CORSON

Mr. G. H. Gabb

GEORGE HUGH GABB, who loved to style himself the 'Father of the Scientific Antiquaries', died on August 11, aged eighty years. He was educated at Bishops Hatfield School and later studied chemistry at the Polytechnic. He was for some time analyst to Welford and Son, and in 1892, in conjunction with Dr. Faber, he invented and put on the market the first type of humanized milk. Later he set up as a consultant on his own account. He retained an interest in public health, and, during a part of the period when he was a councillor of St. Pancras, was chairman of the Public Health Committee.

In 1885, Gabb became interested in the history of science and began to acquire his remarkable collection of scientific antiquities. He was at once a fine craftsman and a connoisseur. He had great understanding and sympathy with the instrument-makers and studied their crafts, thus becoming a master-hand at the treatment and conservative restoration of masterpieces. His understanding of the quality of early work enabled him unhesitatingly to detect forgeries and 'reconstructions'. As one of the first of collectors at a period when there was little interest in old scientific instruments, he was able to make a collection which consisted of really first-class speci-

mens in perfect condition. Among his discoveries were the astrological astrolabe of Queen Elizabeth (c. 1570), the earliest dated English theodolite (1574) and the earliest known dated telescope (1646). His collection was acquired in 1937 by Sir James Caird, who presented it to the National Maritime Museum. Gabb was also an expert in the field of scientific iconography, and discovered many unknown or lost portraits of men of science, ranging from Galileo to Dalton. He was a severe critic in such matters and discredited many portraits accepted as genuine. His interests covered a wide field. He was an enthusiastic photographer, and the last survivor of a small group of X-ray workers who were experimenting in the years 1896-97; among his long succession of exhibits at the Royal Society's conversaciones was an X-ray photograph of his hand, made in February 1896.

Gabb was a remarkable character—a very typical collector, who would stick at nothing to acquire the instruments he coveted. He was by no means blind to his own qualities in this field, and his amusing conversation was not a little marred by its egocentric character. None the less, he was a mine of information and gave to his 'antiquarian sons' treasures of technique which could have been learnt nowhere else. To the Royal Society he left £1,000 to provide for a Leeuwenhoek Lecture on some subject in the field of microbiology; to the Science Museum a number of instruments of historical interest; to the University of Oxford, for the Museum of the History of Science, a collection of drug-jars and some sixty engravings and portraits; and to the Royal Institution a number of letters and relics of Michael Faraday.

We owe a great debt to George Hugh Gabb for his preservation for posterity of so many of the fast-disappearing relics of the great men of science on whose shoulders we stand.

F. SHERWOOD TAYLOR

Dr. J. H. Shaxby

DR. J. H. SHAXBY, who died at Cardiff on September 29, was born at Ashford, in Kent, on May 23, 1879. After his schooldays at Canterbury, he studied at Aberystwyth and then at the Royal College of Science, London, where he became a demonstrator in physics and where he lost an eye in a laboratory accident. In 1904 he joined the staff of the Physics Department at Cardiff and eventually became director of the Viriamu Jones Physical Research Laboratory. In 1924 he relinquished that post when he was appointed lecturer in special sense physiology in the Physiology Department of the School of Medicine at Cardiff, a position which he held until he retired in 1946, but without severing his connexion with the Department. Among many other activities, he was a member of the Physiology of Hearing Committee of the Medical Research Council and was chairman of a committee of the Physical Society on Defective Colour Vision.

Shaxby's scientific interests covered a wide field. An early book of "Elementary Electrical Engineering" (1907) was followed by studies in Brownian movement. Then his service as an X-rays officer in the First World War led to papers on methods for localizing foreign bodies by X-rays. After the War he returned to more purely physical problems with work on vapour pressures and the isothermals of vapours, on the properties of powders, on the diffusion of suspended particles, and on the relation between

density and temperature in fluids. An earlier interest in colour vision became dominant after about 1930 and culminated in two ingenious theoretical papers (*Phil. Mag.*, 1943 and 1946); but during the same period Shaxby was also much occupied with the physiology of hearing, and in particular with phenomena at the threshold of audition, and with the binaural localization of sounds. During 1932-35 he undertook long-range reception of gun-fire noises for the Air Ministry, and in 1937 he became interested in geomagnetic surveying, for which he invented a device for varying the sensitivity of the magnetometer.

This sketch by no means exhausts Shaxby's many interests even in the field of science. As a man, he was a most lovable and loyal colleague with whom it was a pleasure and a privilege to work.

T. GRAHAM BROWN

WE regret to announce the following deaths:

Dr. S. C. Bradford, until 1938 chief librarian of the Science Library, South Kensington, and founder, with the late Prof. A. F. C. Pollard, of the British Society for International Bibliography, on November 13, aged seventy.

Mr. R. Elmhirst, director of the Scottish Marine Biological Laboratory at Millport, whose forthcoming retirement was announced in *Nature* of October 30, p. 688, on November 13, aged sixty-four.

Prof. Karel Kavina, director of the Botanical Institute of the Prague Technical University for many years and known for his "Atlas of Fungi" (1927), a second enlarged edition of which appeared this year, aged fifty-eight.

Mr. E. Platt, geologist and leader of the Falkland Islands Dependencies Survey at Admiralty Bay, King George Island, South Shetlands, on November 9.

NEWS and VIEWS

Royal Society: Medal Awards

H.M. THE KING has been graciously pleased to approve the following recommendations made by the Council of the Royal Society for the award of the two Royal Medals for 1948:

Prof. Harold Jeffreys, for his distinguished work in geophysics and his important contributions to the astronomy of the solar system;

Prof. James Gray, for his distinguished researches in cytology, ciliary movement and particularly his anatomical and experimental studies of animal posture and locomotion.

The following awards of medals have been made by the president and council of the Royal Society:

Copley Medal to Prof. A. V. Hill, for his distinguished researches on myothermal problems and on biophysical phenomena in nerve and other tissues.

Rumford Medal to Prof. F. E. Simon, for his outstanding contributions to the attainment of low temperatures and to the study of the properties of substances at temperatures near the absolute zero.

Davy Medal to Prof. E. L. Hirst, for his outstanding work in the determination of the structure of sugars, starches, plant gums and especially of vitamin C.

Darwin Medal to Prof. R. A. Fisher, for his distinguished contributions to the theory of natural selection, the concept of the gene complex and the evolution of dominance.

Hughes Medal to Sir Robert Watson-Watt, for his distinguished work in atmospheric physics and in the development of radar.

British Astronomical Association:

Dr. J. G. Porter

MR. F. M. HOLBORN retired from the presidency of the British Astronomical Association on October 27 and was succeeded by Dr. J. G. Porter. Dr. Porter is well known in astronomical circles, not only in connexion with his broadcast talks, but also for his work for the Computing Section of the Association, of which he has been director for many years. He has also carried out investigations on the speeds of meteors and has shown that these bodies are members of the solar system, none of the cases that he has dealt with showing hyperbolic velocities; this

would seem to dispose of the results of the Harvard College Observatory Expedition to Arizona some sixteen years ago.

Los Angeles State and County Arboretum:

Dr. Frans Verdoorn

DR. FRANS VERDOORN, managing editor of *Chronica Botanica*, has been appointed director of the Los Angeles State and County Arboretum at Arcadia, California. He will assume the directorship of this new arboretum in the immediate future. It is planned to develop a modern arboretum and botanical garden at Arcadia with various educational and research departments. Dr. Verdoorn will continue to edit *Chronica Botanica* and other journals. Some of these will be published in the future by the Los Angeles State and County Arboretum, while others will be transferred to a commercial publisher.

Dr. Verdoorn, a native of the Netherlands, went to the United States in 1940. Formerly known for his work in cryptogamic botany, he has lately been occupied chiefly with historical studies and international relations work. He was an assistant at the Buitenzorg Botanic Gardens, Java, in the 1930's and has been a research fellow at Harvard University since 1940. During the war years he did much work on Latin America and South East Asia for various government agencies. He received the first Mary Soper Pope Medal in 1946, and has just been appointed chairman of the International Phytohistorical Committee.

Control of Nationalized Industries

IN an address on "The Consumer in Relation to Non-Competitive Industry", delivered at the fifty-second Oxford Management Conference of the British Institute of Management held at Scarborough on October 16, Mr. Herbert Morrison said that increasing use of economists is being made in the work of government; but his address was chiefly concerned with the administrative policy pursued to protect the consumer in industries where full competition does not operate—a field which is not coterminous with that of public ownership. While under the competitive system the threat of withdrawal of custom could be a spur to efficiency, the corresponding safeguard with socialized industries should be their sensitiveness to