

## Obituary.

DR. F. B. POWER.

**D**URING his stay in Great Britain, Dr. Frederick Belding Power made many friends among chemists, who will regret to learn of his death from heart failure in Washington on Mar. 30. He was born at Hudson, in New York State, in 1853, and at the early age of thirteen years was apprenticed to a local pharmacist. This direct connexion with pharmacy was continued up to 1874, when, after securing his diploma at the Philadelphia College of Pharmacy, Power went to Strasbourg, where he took his Ph.D. in 1880. Returning to the United States, he held, among other teaching appointments, the professorship of *materia medica* and pharmacy at Wisconsin University.

Among his fellow-students at the Philadelphia College of Pharmacy was Mr. Henry S. Wellcome, and when the latter established the Wellcome Chemical Research Laboratories in 1896, he invited Dr. Power to become the first director. From 1896 until 1914, Power and his assistants maintained a remarkable output of papers dealing mainly with the constituents of plants. Fellows of the Chemical Society will remember the occasions on which these papers were read, for the lecture table was always decorated with an extensive series of small glass bottles, each containing a specimen of one of the constituents isolated from the plant under discussion. Each bottle was labelled in Power's meticulously careful caligraphy, and the bottles were always arranged in the precise order in which the author would describe their contents. These ranged from simple fatty acids to the most complex of glucosides or alkaloids and all the solids were beautifully crystallised. Power belonged to the generation of chemists who were primarily interested in the isolation of the constituents of plants in a pure state, and his papers devote little or no attention to speculation on the origin of these substances or to their possible bearing on biological relationships, but they form a mine of information, upon which in due course bio-chemists interested in these things will be able to draw.

The work of Power and his collaborators, among whom Mr. Tutin and Mr. Barrowcliffe should be specially mentioned, has already borne fruit in at least one direction, for it is upon the results of their researches on the peculiar acids of chaulmoogra and hydnocarpus oils that the whole of the modern treatment of leprosy is based. Similarly, they did much to extend our knowledge of the distribution of sterols in plants, and in view of the recent discovery of the connexion between certain types of sterols and vitamin D, this work may prove of considerable scientific interest.

In 1914, Power returned to the United States, where he carried on similar work in the phytochemical laboratory of the United States Department of Agriculture. In the previous year he

had been awarded the Hanbury Medal by a joint committee of the Chemical, Linnean, and Pharmaceutical Societies of Great Britain, an award peculiarly fitting for so untiring a pioneer in plant chemistry, and one which he regarded as not the least among the many of which he was the recipient.

DR. JOHN BROWNLEE.

**T**HE unexpected death of Dr. John Brownlee, after an illness of little more than two days, has removed one of the very few highly trained research workers in the field of biological and medical statistics. Dr. Brownlee, who was in his sixtieth year, had been, since 1914, Statistician to the Medical Research Council and Director of the Council's Statistical Department at the National Institute of Medical Research. He was a graduate in arts, science, and medicine of the University of Glasgow, and obtained first-class honours in mathematics and natural philosophy. Before his appointment by the Medical Research Council he had held several important medical posts and successfully directed two large hospitals for infectious diseases.

Brownlee's scientific output was very large; he was the author of more than eighty separate papers. He was particularly interested in the study of periodicity in epidemic disease and, in a series of memoirs, applied the method of periodogram analysis to the data of all the important infectious diseases. Perhaps the most complete of these memoirs was that dealing with measles, which was published in the *Philosophical Transactions of the Royal Society* (Ser. B, vol. 208 and 209, 1917 and 1918). He was also intensely interested in the application to the phenomena of human physiology of physico-chemical laws; his numerous papers on this topic, and the zeal with which he sought to apply physico-chemical equations, led his very numerous friends to rally him on holding that the general law of life was a geometrical progression.

These subjects, however, by no means exhausted Brownlee's energies. Within the medical field his work on the epidemiology of phthisis and various more specialised papers upon infectious disease were important, while his contributions to the study of Scottish anthropology and archæology are noteworthy. His range of scholarship was extremely wide and his outlook philosophical. Valuable as have been his individual contributions to science, it is regrettable that he never carried out an intention he once formed of preparing a comprehensive treatise which would have given full scope for his powers. Dr. Brownlee has left a gap which it is impossible to fill, for he combined technical knowledge and wide intellectual culture in a way which is unfortunately rare in the younger generation of investigators.