

## OBITUARIES

Prof. P. J. Heawood, O.B.E.

PERCY JOHN HEAWOOD died in Durham on January 24 in his ninety-fourth year. Educated at Ipswich and at Exeter College, Oxford, he taught mathematics at Durham, first as lecturer and then as professor, for fifty-two years, from 1887 until 1939. His early promise as a mathematician was to some extent thwarted by the width of other interests—religious, intellectual and administrative—which he pursued throughout his academic career at Durham; but he published a paper in his ninetieth year on the four-colour problem, more than sixty years after his first published work on that subject. He held in turn almost every administrative post in Durham, culminating with a two-year term as vice-chancellor in 1926–28. His loyalties were strong, and the strongest was for Durham, where his great memorial will be the Castle, once more standing firm and safe above the River Wear. When it began to slide down the cliff, the University spent all its available resources and despaired of finding the vastly greater sum needed. Almost alone, Heawood would not despair, and as secretary of the Castle Preservation Committee toiled year after year until the newly founded Pilgrim Trust came to the rescue with a very large grant.

Heawood was almost extravagantly unlike other men, in appearance, mannerisms and habits of mind. An immense moustache, an extremely loud voice, and a long cape of strange pattern and manifest antiquity made him conspicuous to eye and ear. He set his watch once a year, on Christmas Day: "No, it's not two hours fast; it's ten hours slow". All his life was organized on equally logical but fantastic lines. Long before he was distinguished by longevity, legends had clustered thick about him. He did not cultivate his reputation as a character. He just went his way and did not care whether people laughed. But this comic side was by no means the whole man. Together with some prejudices and some limitation of sympathies, he was interested up to extreme old age in many sides of the contemporary world, he could be lively and humorous as a speaker, and was an excellent chairman at meetings, for which he had a singular passion. He read Latin, Greek and Hebrew all his life with real appreciation. His transparent sincerity, piety and goodness of heart, and his extraordinary blend of naïveté and shrewdness, secured to him not merely the fascinated interest, but also the respect and indeed the affection, of his colleagues. Latterly he was indeed a Nestor in Durham. He had been teaching there for some years before the oldest member of the present Senate was born.

JAMES DUFF

Dr. C. H. Hampshire, C.M.G.

CHARLES HERBERT HAMPSHIRE, secretary of the British Pharmacopœia Commission during 1929–50, died in London on January 25 at the age of sixty-nine. He was born at Ilkley, and in 1905 entered the School of the Pharmaceutical Society with a Jacob Bell scholarship and there showed great promise. He gained most of the prize medals of his year, qualified as a pharmacist and later joined the staff and took a London honours degree in chemistry. An early intention to follow a career in teaching was abandoned in 1914 when he was appointed chief

pharmacist at University College Hospital, London, a post which he held until 1929. During this period he became a student in medicine, not with the intention of taking up medical practice but in order to fit himself for the expanding responsibilities of the pharmaceutical department of a teaching hospital. He obtained the Conjoint diploma in 1925 and the M.B., B.S. of London in 1927.

These earlier phases of Dr. Hampshire's career proved their value when, in 1929, he was appointed secretary of the British Pharmacopœia Commission, a body newly created by the General Medical Council on the advice of the Macmillan sub-committee of the Committee of Civil Research. He developed the permanent organization to serve the work of succeeding Commissions in the evolution of a modern pharmacopœia, and his twenty-one years of office saw the "British Pharmacopœia" achieve a standard which is respected throughout the world. He was responsible for a new edition in 1932 and, after the issue of six war-time "Addenda", he dealt with another edition in 1948. To this complicated work he brought unstinted energy and wide knowledge.

Early in his career Dr. Hampshire became interested in the development of an international pharmacopœia and in 1937 was appointed chairman of the Technical Committee of Pharmacopœial Experts set up by the League of Nations; after the War he was called upon to preside over the Expert Committee on the Unification of Pharmacopœias appointed by the World Health Organization. In 1951 he was able to present the first volume of the "Pharmacopœia Internationalis" to the assembly of the Fédération Internationale Pharmaceutique in Rome, and to the end of his life he continued his work on the preparation of further volumes.

He will be remembered chiefly for his major achievements as a pharmacopœial expert, but he gave long and devoted service to other aspects of pharmacy and medicine. He was editor of the *Quarterly Journal of Pharmacy and Pharmacology* from 1928 and continued in office when it became a monthly publication in 1949. He was chairman of the British Pharmaceutical Conference during 1932–34, and for many years a member of the board of examiners of the Pharmaceutical Society and of the Royal Institute of Chemistry, of which he was a Fellow. In 1949 he was made a Companion of the Order of St. Michael and St. George. By Dr. Hampshire's death international pharmacy has been deprived of one of its most distinguished figures, and British pharmacy has lost a dignified and devoted servant.

T. C. DENSTON

Lord Charnwood

LORD CHARNWOOD, who died on February 1 at the early age of fifty-three, and who made some notable contributions to the study of physiological optics, and particularly binocular vision, was the son of the first Baron Charnwood and Dorothea May Roby. A product of Eton and Balliol, he later trained as a mechanical engineer, becoming the chief engineer of Bamford-Martin, the original makers of the Aston-Martin car. During the War he became interested in problems connected with the training of range-takers, using stereoscopic range finders. This gave him his first opportunity of carrying out experimental work on vision. Eventually he qualified as an ophthalmic optician, becoming a Fellow of the

British Optical Association, and afterwards an Honours Fellow of the Worshipful Company of Spectacle Makers.

He practised in London and joined the staff of the London Refraction Hospital, where much of his research work was carried out. Lord Charnwood was the first recipient of the new higher diploma of the Worshipful Company of Spectacle Makers, and was awarded the Master's prize for his thesis on binocular vision. He was awarded an honorary diploma in orthoptics by the British Optical Association in 1952, and the Research Medal of that body in 1954.

He was also a lay Fellow of the Royal Society of Medicine, a Fellow of the Physical Society, and of the Royal Microscopical Society. He was a Fellow of the American Academy of Optometry, and had lectured widely in the United States. His output during these eight years was outstanding, as the following will show.

Lord Charnwood described his research as a "record of unrelated small attacks on a number of facets of the problem of how the brain contrives to drive the two eyes in double harness". His most important work was probably his "Essay on Binocular Vision", published in 1950; but his paper on "Retinal Slip", read at the International Optical Congress in 1951, and reported in the *Transactions*, was of an equally high standard. Other work carried out by him was described in a number of contributions between 1947 and 1952. These included "Some

Anomalies of Binocular Vision", a paper read at the London Refraction Hospital Congress, 1947, and "Notes on Prolonged Occlusion" (*Optician*, August 8, 1947), following Marlow's work on this subject. This was afterwards extended to include the treatment value of occlusion in binocular imbalance, described in a paper, "The Diagnostic and Therapeutic Use of Monocular Occlusion" (*Brit. J. Physiol. Optics*, January 1951), and a number of papers in *The Optician*, including one on the "Mathematical Analysis of Binocular Vision" (Jan. 30, 1948).

An interesting and unusual contribution was his "Influence of Alcohol on Fusion" (*Brit. J. Ophthalmology*, 1950), in which he demonstrated the reduction of the fusional reserves under the imbibition of alcohol, and suggested that some comparable intoxication might be the means whereby such illnesses as measles and whooping cough precipitate squints. He had a communication in *Nature* of August 26, 1950, on the "Effect of Posture on Involuntary Eye Movements".

Lord Charnwood's final contributions, "Stereopsis in the Presence of Diplopia" and "Fusion in Binocular Vision", a criticism of Asher's suppression theory, were both produced in 1954 and published in the *British Journal of Physiological Optics* a few months before he died.

By his death, the optical profession has lost an outstanding figure, and he leaves behind him many friends.

G. H. GILES

## NEWS and VIEWS

Zoology at Bedford College, London:

Prof. N. Millott

PROF. NORMAN MILLOTT, who succeeds Prof. H. Munro Fox in the chair of zoology at Bedford College, University of London (see *Nature*, 174, 537; 1954), is a graduate of the University of Sheffield. His early work, on the morphology and physiology of the gastropod mollusc *Jorunna*, completed during the period of his first university appointment as demonstrator in the University of Manchester, was accepted for publication by the Royal Society and its excellence recognized by the award, in 1936, of the Rouse Ball Studentship at Trinity College, Cambridge. Under the influence of the Cambridge experimental school, Prof. Millott began his investigations of the form and properties of the visceral nervous system of the earthworm *Lumbricus* and of the nervous control of secretion, the results of which were published in a series of papers in the *Proceedings of the Royal Society*. During the War, Prof. Millott served as a signals officer in the Royal Air Force and on demobilization returned to Manchester, first as a lecturer and later as a reader in zoology. When in 1947 applications were invited for the chair of zoology in the newly founded University College of the West Indies, Prof. Millott, now well known as a stimulating teacher and for the originality and high quality of his research work, was selected for the important task of organizing the Department of Zoology, and, in consultation with the University of London, of devising courses suitable for overseas students taking the B.Sc. degree of London. In this he has been conspicuously successful. During his eight years in the West Indies, Prof. Millott has, moreover, not only maintained his

contacts with British universities but also has spent much of his vacation time visiting and working in American universities and laboratories. His experience and qualities will ensure him a warm welcome from his future colleagues in Bedford College and from fellow zoologists throughout the University of London.

James Clayton Prize for 1954: Sir Christopher Hinton, F.R.S.

THE James Clayton Prize for 1954 of the Institution of Mechanical Engineers has been awarded to Sir Christopher Hinton for his pioneer work in applying the results of nuclear research to the production of fissile material and industrial power, communicated in part in a lecture delivered to the Institution of Mechanical Engineers during 1954. By the terms of the will of the late Mr. James Clayton, not less than one-quarter of the annual income accruing from the James Clayton Trust Fund shall be awarded as a prize to a member, associate member, graduate or student of the Institution for a contribution during the year to modern mechanical engineering science by way of research, invention or experimental work, or by a treatise or paper on a modern mechanical engineering subject; or by originality in design; or by service to mechanical engineering. The sum of £1,620 was available for the 1954 award.

Expenditure by the Department of Scientific and Industrial Research

REPLYING in the House of Commons to questions regarding grants to research associations, Mr. J. R. Bevens, Parliamentary Secretary to the Ministry of Works, as representing the Lord President of the