

In 1891, at the International Congress of Hygiene, Copeman described his technique for the bacteriological purification and preservation of vaccine lymph by the admixture of glycerin. This, as he observed, was no new device, but he was the first to demonstrate the selective action of glycerin in eliminating extraneous organisms from the lymph without affecting the specific virus. Later, with F. R. Blaxall, he showed that glycerin is superior to soft paraffin and lanolin in inhibiting the growth of these micro-organisms.

With Dr. Gustav Mann, Copeman collaborated in a study of the histology of vaccinia and investigated other aspects of variola and vaccinia.

As a result of Copeman's work, 'arm-to-arm' vaccination with its attendant risks was abolished, and vaccination was made a much safer and simpler operation. His work was generally adopted by the Royal Commission on Vaccination.

Copeman's discoveries are chiefly recorded in the *Proceedings of the Royal Society*, the annual reports of the Medical Officer of the Local Government Board, and in his Milroy Lectures under the title of "The Natural History of Vaccinia" (1898). He was elected a fellow of the Royal Society in 1903. He received many distinctions; for example, the Buchanan Gold Medal of the Royal Society in 1902; the Cameron Prize of the University of Edinburgh in 1899, and the Fothergill Gold Medal of the Medical Society of London in the same year; and the Jenner Medal of the Royal Society of Medicine (1925) and the Gold Medal of the International Faculty of Sciences (1938).

Although Copeman was employed in numerous administrative inquiries for the Central Health Department both at home and abroad, acted as Government delegate and served on many departmental committees, his real interest lay in scientific research, and his alert mind, fertile in new ideas, was directed to various subjects of investigation. During his later years at the Ministry of Health, he paid special attention to the problem of cancer, and his report with Prof. Major Greenwood on "Diet and Cancer with special reference to the Incidence of Cancer upon Members of certain Religious Orders" opened a new field of inquiry. In 1928, at the International Cancer Congress held in London, he read a paper on irradiated fluorescein in the treatment of cancer. He was a member of the Ministry of Health's Departmental Committee on Cancer, where his advice and ripe experience proved of much value. He was also a pioneer in immunization against diphtheria in Great Britain. During the First World War, Copeman was in charge of the Hygiene Department of the Royal Army Medical College, and helped with others to improve preventive medicine in the field. Endowed with untiring energy and enthusiasm, he took an active part in many medical societies and organisations. He was a keen naturalist and biologist and, as a member of the council of the Zoological Society, did much to develop its work on scientific lines.

On his official retirement in 1925, Copeman interested himself in local government as a member of the London County Council and chairman of the Public Health Committee of the Hampstead Borough Council. He died on April 11, at the age of eighty-five. To the end he kept himself informed of modern progress in medical research. He had a distinguished appearance and a generous and kindly disposition. A man of wide culture, he was a delightful companion. Copeman did much to maintain the high standard of English State medicine. A. S. MACNALT

Prof. W. L. Valentine

WILLARD LEE VALENTINE, editor of *Science* since January 1, 1946, died at his home in Alexandria, Virginia, on April 5. Sudden heart failure ended his career at the age of forty-two. He is survived by his wife, Norma Lawrence Valentine, and two children, Richard and Virginia.

Dr. Valentine was born in Chillicothe, Ohio, on December 2, 1904. He received the A.B. degree at Ohio Wesleyan University in 1925 and the Ph.D. at Ohio State University in 1929. During his years of graduate study, he served as assistant in mathematics and psychology, and later as instructor at Ohio Wesleyan and as instructor in psychology at Ohio State Universities.

Upon receiving his Ph.D. degree, he became a member of the Psychology Department at Ohio State University, first as assistant professor and later as associate professor. His duties there during 1929-40 were principally the direction and co-ordination of the work of the numerous instructors who gave the introductory courses in psychology. His strong interest in improving the teaching given to elementary psychology students led him during these years to write a manual of psychological experiments and to edit several collections of readings in psychology. His work during these years gave many students more interesting, and more experimental, courses than were often taught formerly.

In 1940 Dr. Valentine moved to Northwestern University in Evanston, Illinois, where he served as professor of psychology and chairman of the department until 1945.

From 1937 until his death he was treasurer of the American Psychological Association. During 1938-45 he served as business manager of the Association's publications. His careful supervision strengthened the journals financially, increased their number, and made them available to a steadily increasing group of subscribers.

His editorial skill and his experience with psychological publications led to his appointment as editor of *Science* when that journal came under the editorial direction of the American Association for the Advancement of Science. From the autumn of 1945, when he began planning his first issue, until his death, he devoted himself to making *Science* a news magazine of interest to workers in all fields of science. The format was improved and the scope of articles broadened. Material of general interest to all men of science, such as discussions of the Science Foundation bills being debated by Congress, became, under his editorship, a prominent feature of the journal.

His untimely death has ended a life of service to psychologists and scientific workers in other fields, just as Dr. Valentine was reaching his prime.

DAEL L. WOLFLE

Mr. C. W. Hobley, C.M.G.

CHARLES WILLIAM HOBLEY died at his residence at Oxted, Surrey, on March 31 in his eightieth year. For the past six years or so his health had been frail and his activity was considerably reduced. He will be best remembered for his pioneer work for the prevention of the threatened extermination of some of the more graceful mammals. He was also an authority on the life, both human and wild, of East Africa.

Born in 1867, the son of William Hobley, of Chilvers Coton, near Nuneaton, Warwickshire, Hobley was