

work in this direction may, however, yield pointers of value to workers on the chemotherapy of tuberculosis.

<sup>1</sup> Anderson and Chargaff, *J. Biol. Chem.*, **85**, 77-83, 169 (1929).

<sup>2</sup> Robinson and Birch, *J. Chem. Soc.*, 505 (1940).

<sup>3</sup> Polgar and Robinson, *J. Chem. Soc.*, 389 (1945).

<sup>4</sup> Adams *et al.*, *J. Pharm. and Exp. Ther.*, **45**, 121 (1932).

<sup>5</sup> Barry and McNally, *Nature*, **156**, 48 (1945).

<sup>6</sup> Barry and Twomey, *Proc. Roy. Irish Acad.*, in the press.

<sup>7</sup> Feldman, Mann and Hinshaw, *Amer. Rev. Tub.*, **46**, 187 (1942).

<sup>8</sup> Barry, *Nature*, **158**, 131 (1946).

<sup>9</sup> Izzo and Cicardo, *Nature*, **158**; 590 (1946).

## OBITUARIES

Prof. E. H. Lamb

ERNEST HORACE LAMB was born at Adelaide on May 5, 1878. He left Australia for Great Britain when his father, the distinguished mathematician, Horace Lamb was appointed to a chair at Owens College, Manchester. After attending Manchester Grammar School Ernest had a distinguished career at Owens College (now Victoria University of Manchester). He gained his practical experience with Mather & Platt, Ltd., Manchester, and was afterwards employed by W. H. Allen, Sons & Co., Ltd., Bedford. In 1913 he was appointed professor of civil and mechanical engineering at East London College (now Queen Mary College), University of London.

Lamb served with distinction during the First World War, first with the Royal Marines and later with the R.N.V.R. After service throughout the Gallipoli campaign, when he was awarded the Distinguished Service Cross, he went to H.M.S. *Vernon*, at Portsmouth, where during 1917-19 he was in charge of experimental work and special designs for naval mining appliances.

When Lamb returned to Queen Mary College after the War, he played an active part in the development of the engineering studies of the College, and of the University of London. He was dean of the Faculty of Engineering of the University during 1924-28, and a member of the Senate of the University during 1929-34. He was dean of the College Faculty of Engineering, served on the governing body, and was appointed vice-principal of the College.

Ernest Lamb inherited his father's mathematical ability, and contributed papers on various engineering subjects to the engineering institutions and to the technical Press. He was a member of the Institution of Mechanical Engineers; and an associate member of the Institution of Civil Engineers, of which he was awarded the Telford Gold Medal.

With all his gifts and extraordinary ability, Lamb was devoid of any personal ambition. To all his many duties he brought a freshness of outlook, a capacity for work, and a sense of humour that endeared him to all his colleagues. He gave freely to help all around him, but preferred to remain himself in the background. For this reason his work, both scientific and administrative, was not so well known as it deserved to be, and it was only those who knew him best who appreciated just how much he contributed to the welfare of Queen Mary College.

At the outbreak of war in 1939, the College was moved to Cambridge, and, although Prof. Lamb reached retiring age in 1943, he carried on until the end of the War. He retired in 1945, being later appointed professor emeritus. He continued to live in Cambridge, where his many friends hoped he would

be active for many years. He was looking forward to carrying on with work for which his College duties had not given time.

His many friends were shocked to learn that Prof. Lamb died suddenly of heart failure on October 12.

E. GIFFEN

Prof. A. E. Tehitchibabin

ALEXEJ EUGUENIEWITSCH TEHITCHIBABIN, born at Kusemino, Bortava, in 1871, recently died in Paris at the age of seventy-four. He studied at the University of Moscow from 1888 for four years, and published his first scientific paper during that period. His work was on pyridine and its derivatives, a field then neither well known nor very popular; but in spite of opposition, he persisted with it and never lost interest in the field.

In 1902, he was made 'Magister Chimia' in the University of Moscow as a result of a thesis on the action of alkyl halides on pyridine and quinoline, and afterwards gained the rare honour of doctor of chemistry of the University of St. Petersburg; six years later he was appointed professor of organic chemistry at the Imperial College of Technology (Moscow), becoming dean of the College in 1909. In 1918 he was in addition professor of chemistry in the University of Moscow. During the First World War, Tehitchibabin undertook the organisation of the Russian pharmaceutical industry and, largely due to his work, his country became substantially independent of German supplies. In 1931, Tehitchibabin moved to Paris and directed the laboratory of the Collège de France.

Most of Tehitchibabin's two hundred or so publications are concerned with pyridine and its derivatives; among other things he synthesized pyridine itself from acrolein and acetaldehyde, an example of a general method for synthesis of pyridine derivatives due to his researches, and found that acrolein could be substituted for glycerol in the Skraup quinoline synthesis. In 1913, with his co-worker Seide, he made one of those rare discoveries in chemistry—an entirely new reaction by which 2- and 4-aminopyridines could be obtained by the action of sodamide on pyridine. This reaction, he showed, takes place in two stages, the intermediate sodamidopyridine being decomposed by water. This remarkable discovery was not at first appreciated by chemists outside Russia, due possibly to the fact that it was published in Russian; but, as is shown later, had very important industrial and academic implications in due course.

Tehitchibabin and Seide also showed that alkyl halides could be induced to react with  $\alpha$ - and  $\gamma$ -picolines in the presence of sodamide to give higher alkylated pyridines.

Tehitchibabin and his assistants also studied the tautomerism of the aminopyridines, in particular of 2-aminopyridine, which like 4-aminopyridine and unlike 3-aminopyridine is not a true amino compound, and which cannot be diazotized and coupled to give azo dyestuffs.

2-Aminopyridine has been manufactured in large quantities by Tehitchibabin and Seide's method in connexion with the manufacture of sulphapyridine (M and B 693); condensed with *p*-acetamidobenzene-sulphonyl chloride, the acetyl derivative of this sulphonamide is obtained from which the drug itself can be prepared by alkaline hydrolysis.

As a result of the work on sulphapyridine, 2-amino-pyridine has now become available in large quantities as an intermediate with a large potential value in the laboratory and in industry.

In 1924, Tchitchibabin published his work, "Fundamental Principles of Organic Chemistry" (translated into French); this work is dedicated to his only child, his daughter Natacha, who was tragically killed in an accident in a chemical factory. Tchitchibabin's wife, Vera Vladimirovna, was also a scientific worker.

M. A. PHILLIPS

WE regret to announce the following deaths :  
Dr. Harry Roberts, well known as a writer on social medicine and related topics, on November 12, aged seventy-five.

Prof. F. M. Rowe, F.R.S., professor of colour chemistry and dyeing in the University of Leeds, on December 8, aged fifty-five.

Mr. J. D. Watson, formerly engineer to the Birmingham, Tame and Rea Drainage Board, and a past-president of the Institution of Civil Engineers, on November 23, aged eighty-six.

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## NEWS and VIEWS

### Plumian Chair in the University of Cambridge Prof. H. Jeffreys, F.R.S.

PROF. HAROLD JEFFREYS, who has recently been elected to the Plumian professorship of astronomy and experimental philosophy in the University of Cambridge, in succession to the late Sir Arthur Eddington, is a theoretical geophysicist of world-wide repute. He has been a fellow of St. John's College, Cambridge, since 1914, and a fellow of the Royal Society since 1925. During the First World War, and for several years afterwards, he was at the Meteorological Office, and following a period of some years as a lecturer at his own College he was appointed reader in geophysics in the University of Cambridge in 1931. He is perhaps best known as a seismologist, but as evidence of his versatility it may be mentioned that, in addition to gaining the Adams Prize in 1927, he has been awarded the Buchan Prize by the Royal Meteorological Society (1929), the Gold Medal of the Royal Astronomical Society (1937) and the Murchison Medal of the Geological Society (1939). He has written extensively on probability, notably in relation to significance tests, and an axiomatic exposition of the theory is set out in his book on the "Theory of Probability", to which his earlier book, "Scientific Inference", makes a suitable introduction. His books on Cartesian tensors and on operational methods have been a stimulus to the use of these techniques. The best-known work of Prof. Jeffreys is undoubtedly "The Earth", and it may fairly be said that this treatise, much of it his own researches, welded together a number of scattered topics into a coherent subject. It was indeed felicitous that he dedicated this work in 1924 to a former Plumian professor, Sir George Howard Darwin, "The Founder of Modern Geophysics".

### Crystallography at University College, London Dr. Kathleen Lonsdale, F.R.S.

A READERSHIP in crystallography has been established in association with the Department of Chemistry of University College, London, and Dr. Kathleen Lonsdale has been appointed to the post. This marks the first major step in the creation of a new university centre for the training of crystallographers and crystallographic research workers. Dr. Lonsdale, who received her university education at Bedford College, London, distinguishing herself in physics and mathematics, obtained her research training at the Royal Institution under the late Sir William Bragg, whose research assistant she eventually became. Except for two years as Amy Lady Tate Fellow in the University of Leeds, and for short

periods covering the infancy of her children, Dr. Lonsdale has, since graduation, been associated with the Royal Institution, latterly as Dewar Fellow, and during the past twenty years as one of the most notable contributors to its distinguished record of research. She was one of the first two women to be elected to the fellowship of the Royal Society.

Dr. Lonsdale has taken a leading part in the development of modern experimental and mathematical methods in the X-ray analysis of crystals. She pioneered the determination of molecular structure by Fourier analysis of X-ray patterns, and was the first to establish the size and shape of the benzene ring in hexamethyl benzene and hexachlorobenzene. She took a leading part in the establishment of magnetic anisotropy and its molecular significance in aromatic crystals. She has shown how the thermal vibrations, and hence the elastic forces, in crystals can be investigated by means of the diffuse X-ray reflexions, which had not been previously understood. She has recently been developing the divergent beam method of X-ray analysis, and the study of crystal texture by that method.

### Dr. Frans Verdoorn

THE first Mary Soper Pope Medal of the Cranbrook Institute of Science, Michigan, has been awarded to Dr. Frans Verdoorn, editor of *Chronica Botanica*, in recognition of his editorial and international relations work in biology as well as for his researches in cryptogamic botany and the history of the plant sciences. Dr. Verdoorn, who was born in Amsterdam in 1906, went to the United States in 1940. He is managing editor of the *Chronica Botanica* Co., which publishes *Chronica Botanica*, "A New Series of Plant Science Books", and *Annales Cryptogamici et Phytopathologici*. He is also botanical secretary of the International Union of Biological Sciences and special adviser to the Netherlands Indies Department of Agriculture. His principal books are: "de Frulaniaceis" X-XVIII, "Manual of Bryology", "Manual of Pteridology", "Plants and Plant Science in Latin America", "Science and Scientists in the Netherlands Indies" (with P. Honig), and the "Index Botanicorum", a biographical dictionary of plant scientists, now in preparation in co-operation with the Arnold Arboretum of Harvard University, with which Dr. Verdoorn has been connected since 1941. From 1947 onwards, Dr. Verdoorn will issue a monthly biological news-letter, *Biologia*, and an annual review of progress in international relations and co-operation in science, to be entitled *Pallas*.