12/16
OBITUARIES

Prof. H. C. Plummer, F.R.S.

HENRY CROZIER PLUMMER, formerly professor of mathematics at the Military College of Science, Woolwich, and sometime Royal Astronomer of Ireland, died at Oxford on September 30, within a few weeks of his seventy-first birthday.

Born at Oxford on October 24, 1875, Plummer was brought up in a scientific atmosphere. His father, W. E. Plummer, was a first assistant at the University Observatory, Liverpool, then under the directorship of Pritchard, and afterwards director of the Observatory of the Mersey Docks and Harbour Board and reader in astronomy in the University of Liverpool. Plummer was educated at St. Edward's School, Oxford, and at Hertford College, where he distinguished himself by obtaining firsts in Mathematical Moderations and in Final Schools, and gaining the open mathematical scholarship; the study of physics claimed his attention for a further year. After a year as lecturer in mathematics at Manchester and another year as demonstrator at the Clarendon Laboratory, Plummer was appointed in 1901 assistant in the University Observatory, Oxford, then directed by H. H. Turner. A year's leave of absence at Lick Observatory in 1907 introduced him to spectroscopic work, which was then being rapidly developed at Lick and elsewhere in America. In 1912, Plummer left Oxford for Dunsink Observatory to succeed E. T. Whittaker as Royal Astronomer of Ireland and Andrews professor of astronomy in the University of Dublin. There his "Dynamical Astronomy" (1918) was written, a treatise that reveals Plummer's thorough grasp of the principles of celestial mechanics and a freshness and elegance of mathematical presentation that stamped the book as a notable contribution to the subject. His election to the Royal Society followed in 1920. Next year Plummer left Dunsink on his appointment to the professorship of mathematics at Woolwich, which he retained until his retirement in 1940.

Plummer's astronomical papers covered a very wide variety of subjects. Throughout his life he retained a lively interest in the theory of instruments; his last address to the Royal Astronomical Society in 1941 from the presidential chair was on the development of the vertical telescope—to which he had made contributions more than a third of a century before—and a critical sense of the degree of accuracy with which instruments must be credited. His clear geometrical insight enabled him to devise new theoretical methods—as in his application of projective geometry to the determination of binary star orbits—and to illuminate methods introduced by others; in this last connexion his paper on the mathematical principles underlying Schlesinger's method of 'dependences' may be mentioned as a fundamental contribution to this important method of photographic astronomy. Plummer was an expert on the 'theory of errors', and he wrote many papers on this subject, culminating in his "Probability and Frequency", published in 1939.

Plummer's interest in various problems of celestial mechanics was aroused in his early years and maintained throughout his life. The well-worn subjects of refraction and aberration found him with something fresh to say—he was one of the first to discuss the latter subject in the light of the principles of 'special relativity'. At Dunsink he had embarked on

an ambitious programme on the photometry of variable stars, and he was the first, with Shapley, to throw out the suggestion that cepheid stars owed their variability to rhythmic pulsations. His work on the distribution of stars in globular clusters was remarkable for the analytical elegance which it displayed. These are but a few of his many activities in astronomical research. His acute historical sense must, however, not be forgotten, and especially his deep interest in Newton's manuscripts.

Plummer was president of the Royal Astronomical Society during 1939–41, an honour which he deeply appreciated. Quiet, modest and self-effacing, he was a staunch friend to those who had gained his confidence and esteem. In 1924 he married Beatrice Howard, daughter of the late H. H. Howard, who pre-deceased him by a few months.

W. M. SMART

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Dr. J. J. Drbohlav

PROTOZOOLOGISTS generally, and other friends in Britain, the United States, and elsewhere, will learn with regret of the unexpected death on August 11 of Dr. J. J. Drbohlav at Prague, where he was head of the Department of Microbiological Diagnosis at the State Institute of Hygiene before the War.

Jaroslav Drbohlav was born at Ůlibice, near Jičín (Bohemia), where his father was schoolmaster, on March 14, 1893. He matriculated at the University of Prague in 1912, and took his medical degree in 1917—during the First World War. While still a student he published several original papers (on respiration), and during the War acted as assistant in the Bacteriological Institute. Soon after the War he was made director of the pathological laboratory at Moravská Ostrava, where he successfully coped with an outbreak of smallpox. In 1921 he obtained a Rockefeller Foundation scholarship, and went to the United States to study in various bacteriological laboratories—especially at Harvard, where he took the doctorate in public health with a thesis on the relation of insect flagellates to leishmaniasis.

On his return to Prague, Drbohlav continued his studies at the State Institute of Hygiene, which he helped to found and where he was appointed chief of his department in 1929. Here he devoted himself to various problems of public health and microbiology, and published papers on many different subjects—the streptococci of puerperal fever, spirochaetosis, tularemia, malaria in Subcarpathian Russia, the extermination of rats, blood donors and blood preservation, etc. But after the German occupation of Czechoslovakia in 1938 he was forced to leave the State Institute and transferred to a minor administrative post, and finally retired prematurely in 1944. A patriotic Czech, he was lucky to escape with his life, as several of his colleagues were murdered.

Drbohlav published some hundred papers on his researches, mostly in the Czech language, but his international reputation rests chiefly on his joint publications with William C. Boeck (an American) during 1924–25 on the cultivation of *Entamoeba histolytica*. This work—now a classic of protozoology—was done during his sojourn at Harvard. These two young men then succeeded for the first time in cultivating the parasite which causes amoebic dysentery in man, and introduced new methods which continue to bear ample fruit. Drbohlav himself, indeed, considerably extended the first findings during a stay at Paris in

1925. It is safe to say that Boeck and Drbohlav, and their culture-media, will be remembered as long as the study of intestinal protozoa continues; and for this reason, if for no other, the name of Jaroslav Drbohlav will ever occupy an honourable place not only in his own country but also in the history of microbiology.

I am indebted to Dr. F. M. Berger, a mutual friend and former colleague of Dr. Drbohlav, for some of the data in this note—obtained from Czech sources not generally available.

CLIFFORD DOBELL

8/2

Prof. T. W. Griffith, C.M.G.

THOMAS WARDROP GRIFFITH, emeritus professor of medicine in the University of Leeds and honorary consulting physician in the General Infirmary in Leeds, died in his eighty-sixth year on October 21.

After graduation with highest honours and demonstrating in anatomy under Sir John Struthers for a short period, Griffith chose a clinical career and was successively resident medical officer, honorary assistant physician and honorary physician in the General Infirmary, Leeds. Concurrently, from 1887 until 1910, he filled the chair of anatomy in the University of Leeds, until on promotion to the post of full physician he was transferred to the chair of medicine, which he held until 1925. He served in the 2nd Northern General Hospital during 1914–19, having charge of the special cardiac centre. From 1918 until 1927 he sat on the General Medical Council.

The chair of anatomy at Leeds carried a trifling honorarium, but Griffith spent a large amount of time in its service. The department in the new building (1893) was planned with skill and foresight and was about the best in Great Britain. With his own hands he made a large number of preparations for the museum and for illustration in lectures. In the course of time he amassed a remarkable collection of specimens of abnormalities of the heart, many of which are described in the medical journals. His best known work (with Oliver) was on the distribution of the cutaneous fibres of the thoracic nerves, which demonstrated that the segmental zones were lower and more horizontal than the line of the nerve trunks.

Griffith's daily morning lecture was given with zest, clear, convincing, often dramatic; enlivened by the use of his own strong and supple frame in demonstrating the movements of joints and actions of muscles and by many apt references to the use of anatomical knowledge in clinical work: his anatomy was indeed 'living anatomy', and the attention of his audience was never allowed to flag. His visits to the dissecting room were a stimulating breeze.

In the Leeds Infirmary, Griffith exercised the same skill as was shown in planning the Anatomy School by taking the chief part in the conversion of a part of the hospital into a teaching block to accommodate classes and clinics for the trebled post-war entry of students in 1919–20. Punctuality and complete discharge of all honorary public duties were unflinching. The generations of students whom he encouraged, stimulated and disciplined remember him with regard, and have been grieved to know that this most active and productive life has been clouded by progressive blindness. He was the last of the Victorian clinicians who professed a fundamental subject, the men who begat, and weaned, all the provincial medical schools.

J. KAY JAMESON

Prof. George Baborovský

3/6

DR. GEORGE BABOROVSKÝ, professor of physical chemistry at the Technical College, Brno, died on October 10 at the age of seventy-one. Born at the west Bohemian mining town of Příbram, he graduated at Prague in 1902 and then spent three years under Ostwald at Leipzig. He returned to Prague to become assistant professor of physical chemistry, but in 1911 he went to the Brno Technical College as full professor. The College was given university rank in 1919, and from his laboratory Baborovský published a series of researches dealing with electrochemical subjects, especially the hydration of ions. In 1917 he introduced a new method for finding the absolute hydration by determinations of the true transport numbers of the electrolytes concerned.

Several of Baborovský's later papers are available in English as they appeared in the *Collection of Czechoslovak Chemical Communications*, 1929–38. Baborovský also wrote the standard Czech text-book on physical chemistry, and during his enforced idleness after 1939 he compiled a comprehensive treatise on colloids which was published in 1944 under the title "Colloids Everywhere".

G. DRUCE

Dr. A. H. Belinfante

4/6

AMONG the Continental men of science to perish in the Terezin concentration camp was the promising young Dutch physical chemist, Dr. Adriaan Hendrik Belinfante. He was deported to Terezin from Holland, together with his wife, mother and children, in February 1944. The mother, who was seventy-six, died in April, but Belinfante and his wife survived until October of that year. He was forty-four years of age. His scientific work, most of which was published in the *Recueil de travaux chimiques des Pays-bas*, dealt with the mechanism of certain oxidation processes, autoxidation, 'induced oxidation' and similar phenomena; it covered such widely different reactions as the thermit process with aluminium, molybdenum oxide and calcium fluoride, explosions with benzene–air mixtures and the role of induced oxidation of lactic acid in relation to the cancer problem.

Mr. A. W. Lupton

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THE death occurred on October 1 of Mr. A. W. Lupton, senior lecturer in pharmacy and pharmaceutical chemistry in the University of Leeds. Mr. Lupton was appointed a full-time lecturer in 1933 when the work of the Leeds College of Pharmacy, of which he had for some time been head, was taken over by the University. He was responsible for the training of students for the professional qualifications in pharmacy, as well as for the instruction of medical and dental students, and he did much to raise the status of pharmacy in the University.

WE regret to announce the following deaths:

Prof. R. M. Ferrier, emeritus professor of civil engineering, University of Bristol, on October 28.

Prof. Percy F. Frankland, F.R.S., emeritus professor of chemistry in the University of Birmingham, on October 28, aged eighty-eight.

Dr. A. Liebert, sometime director of the Kant-Gesellschaft and extra-ordinary professor of philosophy in the University of Berlin, aged sixty-eight.