

phenomena than on our progress in understanding them. There were no signs of the pseudo-omniscience which often colours popular writing in astronomy and which does the subject no little harm with critical readers.

Among recent results announced at the meetings a few call for special mention. Photographs of the solar spectrum showing extremely clearly the variation of line shifts and line profiles over the coarse granulation have been made at the McMath Observatory with a new large grating spectrograph giving a resolving power greater than 500,000. Remarkable films of solar flares, also photographed at the McMath Observatory, aroused much interest. Recent rocket flights in the United States have provided photographs of the solar spectrum into the ultra-violet beyond $L\beta$. The rotation of the Large Magellanic Cloud has been measured at the Radcliffe Observatory, Pretoria. Evidence for the very recent formation of certain stars has been found by workers at the Lick Observatory. Photometric measures made at Mount Wilson of the old nova, *DQ Herculis*, now an eclipsing binary, have shown at some phases a remarkable regular pulsation with a period of a little more than one minute.

A few resolutions of more general interest may be mentioned out of the many submitted by commissions and approved by the General Assembly. With regard to notation, Å is to be preferred to Å as an abbreviation for the angstrom unit; 'kayser' is rejected in favour of cm^{-1} . Two proposals of the International Committee on Weights and Measures were endorsed, one relating to a re-definition of the metre in terms of the wave-length of the red cadmium line, the other (which may very soon be made obsolete by recent work with caesium resonators) defining the second as $1/31\,556\,925\cdot975$ of the tropical year for 1900·0. A number of recommendations were made concerning secondary wave-length standards of iron, neon, and argon. Strong support was given to the efforts of the International Scientific Radio Union to obtain frequency-bands for the use of radio astronomers, free of interfering radio transmissions.

The recognition that photoelectric image tubes may ultimately give considerably greater speed for faint sources than the ordinary photographic process, and that they promise to be of the greatest importance to astronomers, has led to the formation of a new sub-commission to encourage developments in this field. Other new sub-commissions have been formed on 'seeing', on meteorites, on variable stars in globular clusters, on the determination of the galactic pole and the zero of galactic longitude. Two commissions and four sub-commissions have been abolished.

The new president of the Union is to be Dr. A. Danjon, director of the Paris Observatory. He will hold office until the 1958 meetings, which on the invitation of the National Academy of Sciences of the U.S.S.R. will be held in Moscow. The U.S. National Committee has issued an invitation to hold the 1961 meetings in Pasadena.

At the concluding session of the General Assembly, warm appreciation was expressed of the hospitality of the Irish Government, of University College, the Institute for Advanced Studies, the Dunsink Observatory, and other institutions in Dublin. That the meetings were so successful and enjoyable was due in large part to the efforts of the Dublin organizers and their helpers, efficiently and energetically led by Prof. and Mrs. H. A. Brück. R. O. REDMAN

OBITUARIES

Prof. V. A. Dogiel

PROF. VALENTINE ALEXANDROVITCH DOGIEL, who died on June 1, was the most outstanding Russian protozoologist of our times. Born in Kazan on March 10, 1882, he was the son of the eminent histologist, Prof. A. S. Dogiel, whose investigations on the minute structure of the nervous system are known throughout the world. V. A. Dogiel received his training in protozoology from V. T. Schewiakoff, whom he succeeded in 1913 as professor of invertebrate zoology in the University of St. Petersburg (now Leningrad), a post which he occupied until the end of his days. On his election as corresponding member of the Academy of Sciences of the U.S.S.R. in 1939, Dogiel also took charge of the protistological laboratory of its Zoological Institute.

Among Dogiel's earlier works (1916-23), those dealing with the parasitic flagellates of termites are noteworthy; but his most important contributions concern the systematics, morphology, and evolution of the Ophryoscolecoid ciliates of ruminants. Dogiel's protozoological work culminated in the publication of a remarkable treatise on "General Protistology" (1951), providing a comprehensive, critical account of the fundamental principles and problems of protozoology.

From 1930 onwards Dogiel's researches were directed to the ecological aspects of parasitology, especially the effect upon the parasitic fauna of changes in the environment and physiology of their hosts. In 1941 he produced a "Textbook of General Parasitology", a second edition of which appeared in 1947. This book, which is devoted to the biology of parasites, is an outstanding contribution to parasitological literature, unique in conception and masterly in presentation. Dogiel was also the author of a "Textbook of Invertebrate Zoology" (four editions, 1934-47) and of a "Handbook of Comparative Anatomy of the Invertebrates" (1938-40), both of which are standard university text-books in the U.S.S.R. Finally, a year before his death (1954) he published a book on "Oligomerization of Homologous Organs: One of the Main Paths of Animal Evolution", in which he develops the idea that various groups of Metazoa have evolved by a gradual diminution, or oligomerization, in the number of homologous and homodynamic organs which were present in their ancestors.

During the forty-two years of his tenure of the chair of zoology in Leningrad, Dogiel built up a school of protozoology and parasitology, to which numerous students (including the present writer) owe their training in these subjects.

C. A. HOARE

Prof. C. F. W. McClure

PROF. C. F. W. MCCLURE, the distinguished American comparative anatomist and embryologist, whose death has recently been announced in his ninetieth year, was born in Cambridge, Massachusetts, in 1865. After an undergraduate career in Princeton, he studied at Columbia University in New York and in Berlin, Kiel and Würzburg. His academic career, however, was essentially linked with Princeton, where he was successively instructor in biology and assistant professor. In 1901 he was appointed to the chair of comparative anatomy in Princeton,

and held that professorship with great distinction until his retirement in 1934.

In his early investigative work McClure inclined to neurology, and he published work on the brain of primitive vertebrates and on the structure of nerve cells in molluscs. His association with Prof. G. S. Huntington, however, led his interests into the field of the morphology and the functional anatomy of blood vessels and the lymphatic system. The collaboration led to classic accounts of the development of the mammalian inferior vena cava, accounts which really deserve the adjective exhaustive. The work with Huntington also resulted in a large number of publications on the early differentiation of lymphatic vessels. These contributions, in which it was insisted that lymphatic vessels can differentiate *in situ* from the embryonic mesenchyme, represented one side of a controversy that shook American anatomy during a period of years, for Dr. Florence Sabin's point of view, that lymph vessels arose only by centrifugal extension of endothelium from veins, was strongly supported by the powerful Johns Hopkins group of investigators. Strangely, the polemics on this problem were almost completely restricted to workers in the United States, possibly because of the preoccupation of European anatomists during the First World War. It was, however, a rewarding controversy, out of which much knowledge and some new techniques emerged.

McClure had been president of the American Association of Anatomists and for many years was a member of the Anatomical Society of Great Britain and Ireland. His distinction in his chosen field of work was such that he was included in the Cattell group of the leading thousand students of science of the United States as early as 1906.

J. D. BOYD

Prof. C. T. Brues

CHARLES THOMAS BRUES was born in West Virginia in 1879, took his first degree at the University of Texas, and briefly held appointments at Columbia, with the U.S. Department of Agriculture, and at the Milwaukee Public Museum. At the age of thirty, he went to Harvard as instructor in entomology under Wheeler, and he spent the remainder of his working life there. To be an entomologist in 1909 meant to be a systematist; and Brues was soon a recognized authority on several families of Hymenoptera and Diptera. During this phase he published his catalogue of African Braconidae, the volume on Phoridae in the *Genera Insectorum* and, with A. L. Melander, the first edition of their well-known "Key to the Families of North American Insects". But Brues was also a naturalist and his interests gradually developed along two principal lines: the fauna of hot springs, and the correlation of systematic affinities with food habits. Food selection by insects increasingly occupied his attention. He wrote several important papers about it, interesting and valuable both to economic and academic entomologists; and finally, in 1946, summarized the whole field in his useful book, "Insect Dietary".

As a teacher of graduate students at the Bussey Institution, Brues was characterized by his helpfulness. His room was always open and he seemed cheerfully ready to put aside his own work and to lend himself, his mind, hands, time and tools, to his students. He was skilful in many small crafts and his skill was there to be called upon. In conversation

and at symposia he rarely criticized, but was ready with useful suggestions. This willing disposition led Brues to undertake much extra work. Single-handed he edited thirty-six annual volumes of the entomological journal *Psyche*, and he served on innumerable boards and committees.

Brues was a man who helped where help was needed without counting the cost to himself or looking for any return. His former pupils and colleagues in many parts of the world will hear with regret that he died on July 29 in his seventy-seventh year, and will think of him with gratitude and affection.

GEORGE SALT

Dr. S. G. P. Plant

DR. S. G. P. PLANT, who was senior lecturer and demonstrator at the Dyson Perrins Laboratory and secretary to the Delegates of the Oxford University Museum, died at Oxford on September 10.

Sydney Glenn Preston Plant was born at Leicester in 1896. He was educated at Wyggeston Grammar School and, in 1915, went up to Oxford as a Scholar of St. John's College, where he read for the final honour school of chemistry. As a young graduate he worked first under Dr. N. V. Sidgwick and later, as a senior demy of Magdalen College, under Prof. W. H. Perkin. He became a lecturer and demonstrator at the Dyson Perrins Laboratory, and since 1928 he had also been secretary to the Delegates of the Oxford University Museum. He served on the Council of the Chemical Society and on its publication committee, and he contributed many papers to its journal. He had, for many years, been treasurer of the Ashmolean Natural History Society.

Dr. Plant's interest in indoles and carbazoles grew out of his early work with Perkin, and he and his pupils have contributed much to our knowledge of this field of heterocyclic chemistry. He published a long series of papers on the substitution and addition reactions of the indole nucleus and the determination of the position of substituents in indoles and carbazoles. It is worthy of note that he discovered some of the first-known covalent derivatives of the alkali metals, compounds of great interest to Sidgwick in his early work on the electronic theory of valency.

But it is, perhaps, as a lecturer and tutor that Plant will be best remembered. His great love of chemistry and his outstanding powers of lucid exposition have inspired, year after year, numbers of undergraduates; many of them began their researches with him and are better chemists for the excellent training they received under his keen and kindly supervision. He found scope for his real flair for organization at the Museum, and there, too, his unflinching good judgment, his tolerance and his delightful sense of humour stood him in good stead. He was as adept at dealing with the gratuitous communications of the discoverers of perpetual motion as with the everyday business of the Museum. A quiet and kindly man, he was liked and respected by all who knew him; he will be long remembered in Oxford, particularly at the Dyson Perrins Laboratory to which he gave such devoted service.

He married, in 1924, Winifred, daughter of William Crawford of Leicester. He is survived by her and by their two daughters.

J. C. SMITH
M. L. TOMLINSON