

the exact functional significance of which is still disputed.

He was elected a member of the Physiological Society in 1887, and since 1952 had been the Society's senior member, succeeding in that capacity another nonagenarian, Sir Charles Sherrington.

Kent's drive and powers of organization were made use of in various ways. He was an early worker on X-rays and helped to develop the Radiological Department at St. Thomas's Hospital towards the end of the past century. In Bristol he founded and carried on in University College a clinical and bacteriological research laboratory, which later became the City's public health laboratory; he was also for a time bacteriologist to the Royal Infirmary and lectured on this subject in the Medical School. He was one of the leading spirits in the campaign for the formation of a University which started in University College in 1900, and nine years later, owing in no small measure to his enthusiasm, the University was founded. In it he designed a new Department of Physiology, the nucleus of the present Department.

During the First World War, Kent became interested in problems of industrial fatigue and was responsible for various Government publications on the subject. In 1918 he resigned from his chair at Bristol to organize and direct a Department of Industrial Administration at the Manchester Municipal Technical College. After his retirement he returned to live in the West Country, converting one of the rooms in his house into a laboratory, where he eagerly continued his histological work on the heart, and he left behind him several thousands of sections representing the work of many years. His keen interest in physiological matters was retained until within a year or so of his death, when serious ill-health overtook him; this, his practical wisdom and his friendliness were his most striking characteristics.

R. J. BROCKLEHURST

Prof. H. S. Langfeld

PSYCHOLOGISTS in Great Britain have reason to be grateful to the late Prof. Herbert Sidney Langfeld for much more than the three highly successful textbooks of which he was an editor. Some will know him as the author of one of the few truly psychological works on aesthetics which was, perhaps, a natural development from his earlier research on vision, bodily movement and synaesthesia and his interest in art—he had a fine collection of wood-engravings. Many more owe him a debt for his untiring work during the years he was secretary of the committee under the auspices of which the triennial international congresses of psychology are held. None could have filled this office better than he, and although he remained characteristically in the background, his efforts have been an important factor in securing international recognition of psychology as an experimental scientific discipline.

Langfeld was born on July 24, 1879, at Philadelphia, and educated at the Central High School there and at Haverford College. In 1902 he went as a member of the U.S. Diplomatic Service to Berlin, and stayed on there to take his doctorate of philosophy at the University under Carl Stumpf in 1909. He became a member of the staff at Harvard in the following year, and from 1924 to 1947, when he retired, was professor of psychology and director of the Psychological Laboratory at Princeton. He was president of the American Psychological Association

in 1930, editor of the *Psychological Review* during 1934–47, a fellow of the New York Academy of Sciences, a member of the Pontifical Academy of Sciences, and permanent secretary of the International Congress of Psychology. He died in Princeton on February 25.

Proud of his German degree and of his European contacts, he and his wife were frequent visitors to Great Britain and the Continent, and their genuinely international sympathies brought them a wide circle of friends in many countries. They were generous hosts in their beautiful home on the outskirts of Princeton, where colleagues, graduate students from his department and visitors from overseas could relax.

Only those who have had the good fortune to work in his laboratory can appreciate fully his qualities as a departmental chairman. Jealous for the honour of psychology as a science, for his department and for his distinguished staff, but entirely without self-seeking, he devoted himself to creating conditions in which all those in the laboratory could develop their work fully, and with enjoyment. His clean, spare figure and somewhat austere expression betokened a firm directness and integrity which earned respect. Yet his quick, almost boyish, smile brought immediate realization that even his most devastatingly frank comments were made with kindness and human feeling. The trust that everyone gave him was never betrayed, and the 'Langie' that he was called behind his back was a term of genuine affection.

A. T. WELFORD

Mr. S. Hazzledine Warren

THE science of geology in Britain has always owed much to a strong body of highly competent amateurs. This applies particularly to the field of Quaternary geology, where the interests of the archaeologist and geologist so usefully meet and interact. Like the late Arthur Bulleid, discoverer of the Glastonbury and Meare lake villages, Samuel Hazzledine Warren, who died on March 27 at the age of eighty-five, was first and foremost a geologist; and although he achieved remarkable distinction in the field of archaeology, he did so very largely by applying the precise and cautious methods of the geological scientist.

He received no specific university training for either archaeology or geology, and indeed began life as a business man; but he found this so little to his taste that he deliberately gave it up in favour of a life of patient and rewarding investigation. Thus he spent sixty happy years of research, a large part of them gladdened by the companionship of his wife who accompanied him, in his elaborately fitted expedition car, with his dog 'Silex'.

He concentrated the greater part of his research in south-east England, that sensitive region upon the margin of the maximal advances of two glaciations, and rich indeed were his rewards. His name is particularly associated with investigation of the interglacial deposits at Clacton-on-Sea, where he established the presence of a Palaeolithic industry of flint flakes and chopper-cores since widely recognized in other parts of the world. It was typical that he took great trouble to secure careful identification of the rich flora and fauna by reference to suitable experts, and equally typical that when, thirty years later, the techniques of pollen analysis had been developed, he lost no time in securing that technique to supplement

the findings already made. In this manner it was eventually shown that the Clactonian belonged to the Great Interglacial, and this confirmed the great antiquity of the charred wooden spear that he had discovered at this site, the oldest known wooden artefact in the world.

During the first two decades of the present century the industrial exploitation of the Lea Valley exposed numerous sections in the valley gravels, and Hazzledine Warren showed industry, caution and skill in investigating and recording these deposits, notably the so-called 'Arctic Plant Beds' of the Ponder's End stage, and afterwards the Late-glacial deposits exposed at Nazeing.

Other important discoveries included a Neolithic axe factory at Graig-lwyd in North Wales, and the

recognition of the submerged 'Lyonesse' land surface on the Essex coast with its very rich archaeological remains.

The quality of scientific acumen seems to be born with some men, as it certainly was with Hazzledine Warren, and it was a great pleasure sometimes to see with what percipience he could correct on occasion his professional colleagues (myself not excluded). Hazzledine Warren's distinction was happily recognized by his election to the presidency of the Geologists' Association and of the Essex Field Club, by honorary membership of the Prehistoric Society, and perhaps most notably by the award of the Prestwich Medal of the Geological Society of London and the Henry Stopes Medal of the Geologists' Association.

H. GODWIN

NEWS and VIEWS

New Foreign Members of the Royal Society

THE following have been elected foreign members of the Royal Society: André Lwoff (Paris), distinguished for his work on the morphology and nutritional requirements of protozoa, and for his researches on lysogenic bacteria and bacteriophage; Nikolai Semenov (Moscow), distinguished for his work in chemical kinetics, especially for his pioneer work on chain reactions; George Gaylord Simpson (New York), distinguished for his contributions to palaeontology and evolution; and Arthur Stoll (Basle), distinguished for his work on the chemistry of natural products.

Botany at Queen Mary College, London:

Prof. F. M. Haines

FREDERICK MERLIN HAINES, who retires from the chair of botany at Queen Mary College, London, at the end of the present session, took over from the late Prof. F. E. Fritsch, whose reader, physiologist and former student he had been, in 1949. No other botany department in the University of London has formed a unit in quite the way which that at Queen Mary College has done under Haines. The nearest approach would perhaps be found in the older universities, where it is a rule seldom broken that all the staff come from the same department, a state of affairs which fosters mutual understanding and maintains a distinctive tradition. Only Fritsch, however, was able to bring this about in London; that he did so and that Haines was secured as his successor is something for which the department and indeed the University may well be profoundly grateful.

Haines's botanical interests have been mainly concentrated on the water relations of plants, on which he has published many papers and given more or less biennially the intercollegiate lectures for many years. He has, however, wide interests outside the field of botany. As chemist, physicist, engineer and general handyman, he is as good at the bench as in the study, and apparatus of all kinds, from thermostatic controls to clocks and tape recorders, flow ceaselessly from his workshop at his home in Kent. He is a gifted painter, spending much of his holidays with an ancient car in search of landscapes: his recent book, "Tone and Colour in Landscape Painting", embodies a many-sided and very varied experi-

ence. His life-like portrait of Fritsch hangs in the department. He is an expert in photography, possessing a valuable set of cameras and lenses and carrying out his own developing and printing even of several-colour processes. Equally at home in the aural and oral arts, he is a good linguist and first-class mimic, as well as a performer on the violin and viola and all kinds of brass and wood-wind instruments, of which he has a large and cherished collection.

Haines is one of the fortunate few who have so many irons in the fire that there can never be time for all. Well occupied and well deserved will be his retirement with his wife and daughter after forty years of service to the College.

Prof. C. P. Whittingham

DR. C. P. WHITTINGHAM belongs to the type of botanist—frequently to be met in Cambridge when F. F. Blackman was the source of inspiration for plant physiology, but now quite rare—who concentrates on physics, chemistry, and mathematics at school and adds botany when he reaches the university. He entered St. John's College, Cambridge, in 1940 and, after graduating in 1943, conducted research under Prof. G. E. Blackman on field trials and on herbicides. He returned to Cambridge in 1946 to work with Prof. G. E. Briggs on photosynthesis and was awarded the degree of Ph.D. in 1949. Photosynthesis has remained his principal interest and he has established himself as a recognized authority on this subject. He collaborated with Dr. R. Hill in the production of a small monograph on the subject in 1955. Dr. Whittingham has widened his experience by close contact with other workers in this field. During the year 1949–50 he was a research fellow with Prof. Robert Emerson at the University of Illinois and spent part of the time with Prof. L. R. Blinks at Stanford University. During 1953–54 he was visiting lecturer with Prof. A. H. Brown at the University of Minnesota. Since 1950 he has held a post in the Botany School at Cambridge, first as a senior assistant in research and since October 1957 as an assistant director of research. As such he has gained experience as a teacher and as a supervisor of research students. The Department of Botany at Queen Mary College, London, is very fortunate in obtaining as its new head a man in the full tide of his research activity.