

illustrious ancestor Charles Robert Darwin in a fine plaque which now hangs in his room in Christ's College, Cambridge.

In conclusion, may I apply to the Prince of Potters who has inspired this discourse, words once spoken of Sir Humphry Davy by Samuel

Taylor Coleridge, Thomas Wedgwood's bosom friend, who said: "If Davy had not been the first Chemist, he would have been the first Poet of his Age." We can equally declare: "If Josiah Wedgwood had not been the first Potter, he would have been the first Scientist of his Age."

Obituary Notices

Prof. Victor Grégoire

THE death of Prof. Victor Grégoire on December 12 removes one who was not only a leader among the cytologists of his time but was also one who, as a botanist, was deeply concerned with problems of plant morphology and applied essentially cytological methods to their solution. Especially in the pre-War period, his influence in cytology was wide and many of his contributions were of fundamental importance. He was essentially an observer rather than a theorist, and although many of his best observations were on chromosome structure and behaviour he did not follow cytology far into its later intimate relations with genetics, although his pupil and colleague, Janssens, was the founder of the theory of chiasmata.

In more recent years, Grégoire became deeply immersed in problems of floral morphology, and an extensive memoir on the carpel (*La Cellule*, 47, part 3) which is the result of ten years of research, has recently appeared. This was intended to be the first of a series of contributions setting forth his views, based on extensive investigations of floral structures.

Grégoire was born at Anderlues, Belgium, on December 5, 1870. From 1887 until 1894 he studied philosophy and theology in Rome. The following year he returned to Belgium and studied science at Louvain for three years under Carnoy. In 1897 he became assistant in botany and in 1899, after two further years of foreign study, he was appointed extraordinary professor of botany, succeeding to the professorship of cytology and botany at the Carnoy Institute in 1903. The rest of his life was spent as a professor in the Catholic University of Louvain. He always adhered to his priestly robes, and he showed outstanding courage during the occupation of Louvain in the Great War. In 1925, the twenty-fifth anniversary of his professoriate was celebrated and two jubilee volumes of *La Cellule* (of which he became co-editor in 1928) were published. These consisted of contributions from his former students, many of whom had visited his laboratory from foreign countries in Europe and the United States.

Grégoire spoke with great clarity of diction and taught with vigour and enthusiasm. A man of very gentle disposition, he lived a very quiet life in a quaint old house of eighteenth-century Flemish style, completely absorbed in his scientific work. In some respects he might be regarded as the counterpart of Mendel in modern life; but in his view, as expressed

in 1925, he limited Mendelian behaviour to varieties and held that specific differences were non-mutational in origin and non-Mendelian in inheritance.

Nearly all the more important publications of Grégoire appeared in *La Cellule*. His first paper (1899) was an extensive memoir on the pollen meiosis in Liliaceæ. He concluded that the spireme thread (peloton) divides first longitudinally into two interlaced threads and then transversely into twelve chromosomes, which are therefore constituted of two longitudinal halves. But this is not the place to enter in any detail into the intricate history of the development of ideas regarding meiosis.

In 1903, in collaboration with his pupil Wygaerts, Grégoire made a careful study of the events of telophase in root-tips as regards the history of the chromosomes and their transformation into the resting nucleus. These papers immediately gave him a deservedly high reputation as an observer. The phenomena of meiosis shortly reclaimed his attention, and a series of memoirs followed until 1916 on various aspects of mitosis and meiosis in plants and animals. Several of these were extensive critiques of the current literature. In 1905 he concluded that if there was a real reduction division of the chromosomes it must be the first division. In 1907 he introduced the term zygotene for the stage in which the threads pair longitudinally to form a thick spireme or pachytene nucleus. (Dr. C. D. Darlington's suggestion in *NATURE* of February 4, p. 206, that my first paper (1907) was responsible for the conception of the continuous spireme in pollen mother cells is therefore erroneous, because the conception was current if not universal for some years before my work was begun.) By 1910 he had clearly adopted parasynaptic pairing at the zygotene stage as characteristic of meiosis in plants and animals generally.

In the post-War period, Grégoire transferred his main interest to other fields of botany. He published several text-books dealing with general botany, anatomy and the systematics of angiosperms, only once returning to cytology in a paper on chromocentres in plants, although many cytological papers continued to appear from his laboratory.

In recent years, the nature and origin of the carpel has been the subject of much investigation, and many diverse views and theories of its morphology have been propounded. Grégoire's extensive memoir on this subject adds a different view. Having discarded the classical theory of its leaf-like nature, he also

disagrees with all the views recently propounded. He concludes from a detailed comparison of stem-tips and floral receptacles in many plants that the vegetative cone and the floral apex are independent structures, carpels not arising from the latter in the way that leaves arise from the former. He held the view that the carpel, as a reproductive structure, was an organ *sui generis*, not to be homologized with any purely vegetative structure such as a leaf. His work will doubtless lead to further discussion of this intricate problem.

During his relatively uneventful but scientifically active life Grégoire received many honours. He was a member of the Royal Academy of Belgium, the Paris Academy of Sciences, the Pontifical Academy of Sciences and the Royal Irish Academy, and had received honorary degrees from various universities. He was elected a foreign member of the Linnean Society in 1917 and an honorary fellow of the Royal Microscopical Society in 1931.

I am indebted to Profs. Martens, Robyns and McLean Thompson for several of the facts here recorded relative to the life of Grégoire.

R. RUGGLES GATES.

Dr. C. J. Gahan

DR. C. J. GAHAN, who died on January 21, the day after attaining his seventy-seventh birthday, was for thirteen years keeper of the Department of Entomology of the British Museum (Natural History) and was in charge of the enormous collection of insects at South Kensington from 1910, when he succeeded the late Charles Owen Waterhouse as assistant-keeper in charge of that section of the Department of Zoology, until his retirement from the Museum in 1926. Increasing recognition of the importance of entomology led to the creation of a separate Department of Entomology in 1913 and Gahan was appointed its first keeper.

Charles Joseph Gahan was born at Roscrea, Tipperary, in 1862, the son of Michael Gahan, master of Erasmus Smith's School in that town. He was educated first in his father's school and afterwards at Queen's College, Galway (later of the National University of Ireland), from which he obtained the degree of M.A. and afterwards D.Sc. In 1884 he went to London and for two years studied science at the School of Mines (now the Royal College of Science), then presided over by Huxley. In 1896, he was appointed to an assistantship in the Department of Zoology of the British Museum (Natural History), which only six years previously had been removed to South Kensington. Although until that time he had made no special study of insects, his inclination having been chiefly in the direction of botany, it was the rapidly growing entomological collection, and especially the immense order of Coleoptera, to which he was to devote himself during the thirty years spent in the service of the Museum. In 1899 and 1900 he was secretary, and in 1917 and 1918 president, of the Entomological Society of London.

Of Gahan's numerous published writings most are upon the timber-destroying family of beetles, the

Cerambycidae, upon which he became the leading authority. He also devoted considerable attention to the problem of dealing with the depredations of the death-watch beetle and the closely related furniture-beetles, and was the author of a valuable booklet published by the Museum on the subject. Other subjects to which he made original contributions were mimicry in insects and the vocal and auditory organs of the Coleoptera. Although never a keen collector, he was by no means an arm-chair naturalist, but took the greatest delight in the study of living creatures. He was also an enthusiastic horticulturist and, being cut off by persistent ill-health from the means of continuing his former pursuits, he devoted much of the last twelve years of his life to the cultivation of a large garden at Aylsham, in Norfolk, where he lived from the time of his retirement. He leaves five sons and two daughters.

GILBERT J. ARROW.

Prof. M. W. Pavlova

PROF. M. W. Pavlova (Marie Pavlow), professor of palaeontology in the University of Moscow, died on December 20 at the age of eighty-four years.

A pioneer of the progressive movement among women of old Russia, she was educated abroad. She was a pupil of the French palaeontologist Albert Gaudry, and introduced the principles of his school into her native country and trained several generations of Russian palaeontologists, particularly women.

After Woldemar Kowalevsky, whose chair she held in the University of Moscow, Marie Pavlow was the founder in Russia of palaeontology as a biological science. Full of energy and activity, she frequented the museums of her country and described in her valuable monographs the collections of fossil mammals hidden in these museums. Similar fossils were studied by her abroad in various European and American museums. She was thus able to draw the generalized conclusions in her "Etudes sur l'histoire paléontologique des ongulées" for the various groups of ungulates, namely, horses, rhinoceroses, artiodactyles and proboscids. Having worked a great deal in foreign museums she made friends with the foremost palaeontologists of the world. Her name was one of the best known among foreign naturalists.

Marie Pavlow considerably extended the palaeontological material left by W. Kowalevsky in the University of Moscow, and together with her husband, the late professor of geology, A. P. Pavlow, created one of the best palaeontological museums in the U.S.S.R., which now forms part of the Moscow Geological Institute.

A. BORISSIAK.

WE regret to announce the following deaths:

Dr. L. H. Dudley Buxton, fellow and bursar of Exeter College and reader in physical anthropology in the University of Oxford, on March 5, aged forty-nine years.

Mr. Howard Carter, known for his work in Egyptology, especially in connexion with the tomb of Tutankhamen, on March 2, aged sixty-five years.