

OBITUARIES

Prof. E. W. W. Carlier

PROF. E. W. W. CARLIER died on September 2, 1940, in his seventy-ninth year at his home in Warwickshire. In him has passed away an outstanding personality.

Prof. Carlier was of French extraction, being the only son of Antoine Guillaume Carlier, officier d'Académie. He was born at Norwich in 1861, and received his early education at the King Edward VI School there. Later, he went to the Lycée de Valenciennes, where he graduated Baccalauréat *és Sciences*. He began his medical education at the University of Edinburgh at the age of twenty-one, and took the degree M.B., C.M., with honours in 1886. After this, he was asked to join the junior staff in the Department of Physiology. He obtained the M.D. degree with first-class honours and gold medal in 1891. In 1895 he was appointed senior lecturer in physiology.

In 1899 he went to Birmingham as professor of physiology in Mason College, which in 1900 became the University of Birmingham. He held the professorship of physiology in the University of Birmingham until his retirement in 1927, when he was elected emeritus professor.

During 1909-14, Prof. Carlier was examiner in physiology for the first fellowship examination of the Royal College of Surgeons. He was vice-president of the Physiological Section of the British Medical Association at Ipswich in 1900, and at Birmingham in 1911. He was a member of the Royal Society of Edinburgh, and of the Royal Entomological Society. For seven years he was honorary secretary of the Scottish Microscopical Society and vice-president for one year.

In 1895 he married Hannah Culver of Hughenden, who died in 1929. He leaves a daughter and two sons.

When he was at the University of Birmingham Prof. Carlier was instrumental in the building and equipment of a new histological laboratory, which was admirably adapted to its purpose. He conducted the classes in histology himself; his descriptions of the slides were a marvel of lucidity; he saw to it that first-rate material was supplied, and many of his own magnificent preparations were distributed to the students, whose work he superintended individually. At each session students were privileged to examine slides from his unique private collection, which is of European reputation; and which, at the request of the British Museum, is now being sent there.

Prof. Carlier carried out a large amount of research work, many of his papers being published in Germany and France. Perhaps his greatest contribution to physiology was the combination he made of experimental and histological methods as exemplified in his discovery of the functions of the nucleolus in cellular fatigue, his work concerning the changes

observable in the gastric secreting cells during digestion, and the secretion of ferments by the liver cells.

Besides physiology, Prof. Carlier took a keen interest in other branches of science, particularly natural history; he was seven times president of the Birmingham Natural History and Philosophical Society. He made a special study of entomology, and since his retirement was engaged in research on the Lepidoptera. He had a very fine collection of butterflies. He was an enthusiastic gardener, and his class was often cheered by the sight of some special flower in his buttonhole or on his table. At the age of seventy he began a research on the Rotatoria, Rhizopoda, and Heliozoa, for staining which he invented a laborious, but very effective process.

Prof. Carlier had a tall and imposing appearance, and students at first were apt to be intimidated by his somewhat abrupt manner and penetrating look, but they soon discovered his genial kindness, readiness to help in any difficulty, and genuine liking for young people. Women owe him a debt of gratitude in that he upheld their claim to a medical education when this met with much opposition.

Prof. Carlier was deservedly popular, and was held in affectionate esteem by his colleagues, laboratory assistants and students. He will be missed by a large number of friends.

HILDA WALKER.

Dr. W. E. Harper

DR. WILLIAM EDMUND HARPER, who died on June 14, at the age of sixty-two, had been director of the Dominion Astrophysical Observatory since 1936. Dr. Harper was born in Ontario on March 20, 1878, and graduated from the University of Toronto in 1906. On that day he received word of his appointment to the staff of the Dominion Observatory at Ottawa. For thirteen years he was engaged there in the determination of the orbits of spectroscopic binaries, and on his transfer to Victoria, when the Government sponsored the 72-inch reflector, he continued the same work. In 1924 he was made assistant director, and finally director in 1936. From the time of his graduation until his death he was intimately associated with the development of astronomy in Canada. Before his death he had determined the orbits for more than a hundred binaries. No other astronomer has approached this number. His contributions to this part of astronomy constitute approximately one quarter of the known orbits. Among other major pieces of work were the determination of 1,100 spectroscopic parallaxes and the measurement of over 7,000 plates for radial velocity.

Dr. Harper took a very active part in popularizing astronomy in Canada. He was a member of the Royal Astronomical Society of Canada and served