

constant, possibly cosmic, influences causing secondary maxima and minima in the yearly range of meteorological elements and terrestrial magnetism and lead to the calculation of numerous periods, even in mortality and nativity. Part of the material was provided by the author, copying unpublished observations abroad during repeated sojourns in milder climates during winter time.

Van Rijckevorsel was a lonely man for a great part of his life, and always busy—his love of Nature, his skill in drawing, and his taste in forming ethnological collections will be long remembered by his friends and countrymen. Time will judge of the importance of his life-work, but his earnest devotion to international science ensured him the esteem of colleagues from many nations.

E. VAN E.

MR. C. L. TEMPLE, C.M.G.

We regret to record the death of Mr. Charles Lindsey Temple, C.M.G., formerly Lieutenant-Governor of Northern Nigeria, which took place on Jan. 9 at Granada, Spain. Mr. Temple was a son of the Right Hon. Sir Richard Temple, formerly Governor of Bombay, and a notable figure in the political world of the late nineteenth century, and a brother of the present Sir Richard Temple, the distinguished authority on Indian culture and literature.

Charles Temple was born in 1871, and entered the Consular Service in Brazil in 1898. Through the influence of Sir Frederick Lugard, he joined the Nigerian Service in 1901, where he rapidly showed himself an administrator of sympathetic understanding in dealing with native affairs. Papers on the natives of Northern Nigeria, contributed by him to the *Journal of the Royal Geographical Society* in 1912, and by his wife to the meeting of the British Association in 1913, showed how thoroughly the essential factors of the situation had been grasped. Temple was a staunch upholder of the theory of government that it was the duty of the white races to accept, so far as possible, tribal laws and customs as a guide in shaping the development of backward peoples. He regarded it as essential that natives should be associated with whites as much as possible in the government of their own country. The views and the principles upon which he carried out his administrative duties were embodied in a book, "Native Races and their Rulers," which appeared in 1918 and has since become a text-book for administrators, and a powerful influence in the government of Nigeria.

Mr. Temple was Chief Secretary of Northern Nigeria from 1910 until 1913, and was appointed Lieutenant-Governor of the Protectorate in 1914, holding that office until 1917, when his health broke down. He married Miss Olive MacLeod, daughter of Sir Reginald MacLeod of MacLeod, herself well known as a traveller and the author of a number of studies of the peoples of Nigeria, based on material mostly collected during her husband's term of office.

PROF. A. W. BICKERTON.

PROF. A. W. BICKERTON, whose death on Jan. 23, at the advanced age of eighty-seven years, is announced, was a well-known figure in astronomical and other scientific circles. He was born at Alton, Hants, on Jan. 7, 1842, and educated at the Grammar School there and the Royal School of Mines, South Kensington, of which he became an Associate. After leaving the College he was appointed organiser of science classes at the Hartley Institute (now University College), Southampton, and in 1874 went to Canterbury College, Christchurch, New Zealand, as professor of chemistry and physics. While there he had among his students Sir Ernest Rutherford, who in the *Times* of Jan. 25, pays an appreciative tribute to the stimulating lectures given by his old teacher, and remarks: "His powers of popular exposition, his enthusiasm and versatility were of great value in promoting an interest in science in a young community."

About twenty years ago Prof. Bickerton came to England with the express purpose of developing and making known an impact theory of cosmic evolution conceived by him in 1877, and of which he regarded the appearance of new or temporary stars as examples. His view—described in a number of papers published by the New Zealand Institute and other societies—was that stars were formed by the grazing collision, or partial impact, of two cosmical masses. The new lucid object thus brought into existence was not regarded as made up of the combined masses of the colliding clouds, but as a third body formed by the material detached from the colliding masses. A suggestion of this kind could obviously scarcely be placed in the category of fundamental astronomical theories without substantial observational or dynamic evidence, neither of which Prof. Bickerton was able to provide. He was discouraged by the indifference shown by astronomers generally to his views, yet he never lost his enthusiasm, and believed that he had found the truth and that it would be established in due season by both mathematical physics and astrophysics. He would, we believe, be content with the epitaph, "Magna est veritas, et praevallet."

WE regret to announce the following deaths:

Dr. T. O. Bosworth, author of "Geology of the Tertiary and Quaternary Periods in the North-West Part of Peru," on Jan. 18, aged forty-six years.

Dr. John K. Haywood, chemist in charge of insecticide supervision, food, drug, and insecticide administration in the U.S. Department of Agriculture, on Nov. 30, aged fifty-four years.

Dr. Fernand Widal, professor of internal pathology in the University of Paris, whose name is associated with the agglutination test for the diagnosis of typhoid fever, on Jan. 14, aged sixty-six years.

Prof. R. H. Yapp, Mason professor of botany in the University of Birmingham since 1919, on Jan. 23, aged fifty-seven years.