

paper he tells us how the appearance of a calcium phosphate precipitate in the hydrolysis by enzymes of the hexosemonophosphoric ester suggested to him the possibility that some enzyme might be found in the growing bones of animals which could effect the deposition of calcium phosphate and so lead to bone formation. Such an enzyme Robison found in the hypertrophic ossifying cartilage of young rats and rabbits, and so began that series of studies on the significance of the hexosephosphoric esters in ossification and in metabolism generally which, with the help of a succession of collaborators including H. D. Kay, K. M. Soames, M. Martland, Morna Macleod, E. J. King, Honor Fell, A. H. Rosenheim, M. G. Macfarlane and W. T. J. Morgan, he devoted the twenty years of life that remained to him.

In 1930 Robison was elected fellow of the Royal Society, and in 1931 he was invited to deliver the Herter Lectures in New York on the subject of his work. In January 1931 he became head of the Biochemical Department on Harden's retirement, and about the same time the University of London conferred upon him the title of professor of biochemistry. In 1933 the Royal College of Physicians honoured him by the award of the Baly Medal, a tribute he greatly valued.

Than Robison there was never a more conscientious head of a research department. Helpfulness was his keynote and an insistence at all costs on honest and accurate performance. No pains were spared, sometimes unfortunately at the cost of a constitution that was never too robust, to make the sojourn of workers in his department, whether native or foreign, both pleasant and profitable. To offices that outside bodies called upon him to perform—and they were many—he gave ever the most serious attention, and indeed his presence where chemists and biochemists foregather will be greatly missed, for he was a man of wide and cultured outlook and strongly held convictions. He leaves a widow and a married daughter, trained in her father's science, and to them we would offer our sincere sympathy.

J. C. G. LEDINGHAM.

Sir Edward Blunt, K.C.I.E., O.B.E.

SIR EDWARD BLUNT, whose death occurred on May 29, was born in 1877, educated at Marlborough and at Corpus Christi College, Oxford, and entered the Indian Civil Service in 1901. He was superintendent of Census Operations in the United Provinces of Agra and Oudh for the census of 1911. It was in that capacity, when Sir Edward Gait was census commissioner for India, that Blunt undertook the study of caste and the social structure of Hinduism, the results of which appeared in his census report published in 1912. It contains a critical examination of Hinduism as observed by him in the United Provinces, and the subject of caste, though treated there in a separate chapter, is primarily approached from its aspect as an essential element of Hinduism, which "depends a great deal more on whom one marries and what one eats and drinks, than on what one believes". The tenets of Hindu sects are also ex-

amined, and it is interesting to observe that the *Arya Samaj* is treated as a different religious unit from Hinduism proper. In 1891 the *Arya Samaj* had demanded separate classification, but the position had so far changed by 1911 that to meet various objections Blunt then classified them as *Hindu Arya*, though as an entity independent of *Hindu Brahmanic*. This arrangement had to be altered in subsequent censuses, which included the *Arya Samaj* as a mere subhead of the Hindu total.

Blunt treats caste as the result of a cross-division of guilds on a class system based on colour, on which as involving hypergamy he lays particular stress. The origin and nature of sub-castes he also dealt with, aptly illustrating the position by the Laungbarsa sub-caste of the Dhanuk caste, which in one place is strictly endogamous, in another in the same district strictly exogamous, and in yet a third exogamous as regards one other sub-caste of Dhanuk but endogamous as regards all others. Further, wherever it is exogamous it sometimes only gives girls to, sometimes only takes them from, the same sub-caste of Dhanuk. In investigating civil conditions, Blunt contributed much information on survivals of the levirate in various castes of the United Provinces, as well as comprehensive lists of the terms of relationship and a brief but very useful examination of Hindu exogamy in general.

"The Caste System of Northern India", published in 1931, covers a good deal of the same ground as the Census Report, though there is much added material such as the important chapter on "Caste and Islam". The book, however, is in one respect out of date for a book of 1931 in that it retains Risley's dogma of the civilized Aryan invader and the primitive savage Dravidian. It seems now much more probable, in view of subsequent researches, that the Dravidian-speaking population was more advanced in the apparatus of civilized life than were the Rigvedic invaders, and that the stories of contest between the enlightened invader and the black and noseless *Dasyu* were derived from the traditional inheritance of pre-Rigvedic inhabitants. Moreover, Stanley Rice's cogent correlation of caste with taboo suggests a much earlier origin for that system than Blunt envisages, though he specifically avoided dogmatizing. Sir Edward Blunt's researches, however, though they may not embody the latest ideas as to the origins of caste, have provided us with one of the best of the very few recent books which describe the facts of caste, and with much valuable material for its understanding; on the score of this he has earned a definite and important position among the distinguished students of that unique phenomenon.

J. H. HUTTON.

We regret to announce the following deaths:

Sir Arthur Evans, F.R.S., honorary keeper of the Ashmolean Museum in the University of Oxford, the leading British authority in the classical archaeological studies, on July 11, aged ninety (see also *NATURE* of July 12, p. 46).

Sir William Willcox, medical adviser to the Home Office since 1919, on July 8.