

refrigeration, road and rail transport, town planning, irrigation, and mining machinery. The Anthropological Section, it need scarcely be said, was in its element: chief among many features of topical interest it received Miss Caton-Thompson's report upon her excavations at Zimbabwe and other sites in Southern Rhodesia, carried out at the instance of the Association, and confirming the medieval origin of the buildings in the face of romantic ideas as to their much greater age. The physiologists and engineers jointly considered problems connected with the ventilation of deep mines on the Rand and elsewhere. The psychologists contributed their results associated with some of the population problems of South Africa. The Educational Section devoted itself almost wholly to South African topics: and lastly, the Agricultural Section had the unique opportunity of meeting jointly, in Pretoria, with the Pan-African Agricultural and Veterinary Congress."

There can be no question as to the stimulus which consideration of these and other subjects has given to science in South Africa, or in the

interest which has been created among the visitors in the scientific and economic problems of the country. Everywhere the scientific staffs, research workers, and planters were eager to get into touch with visitors possessing intimate knowledge of their subjects, and to seek advice as to deductions to be drawn from work in South Africa or suggestions for further activities. The foregoing general survey represents not only personal conclusions as to the place of science in the development of the Empire, but also the views of competent authorities upon specific problems in South and East Africa. Among those with whom I have had conversations or correspondence, and to whom I am indebted for information, are Prof. H. J. Fleure, Mr. E. N. Fallaize, Dr. B. A. Keen, Dr. H. M. Steven, and Prof. J. H. Priestley. We all aim to advance progress and promote human welfare, and many of us are convinced that this can be attained only by scientific guidance. Upon statesmen and administrators is the responsibility of seeing that this guidance is rightly regarded and effectively used.

Obituary.

DR. J. C. MELVILL.

DR. JAMES COSMO MELVILL, of Meole Brace Hall, Shrewsbury, well known as a conchologist and botanist, who died on Nov. 4, was born in London on July 1, 1845, and was the son of James Cosmo Melvill, Under-Secretary of State for India, and the grandson of Sir James Cosmo Melvill, F.R.S., chief secretary of the East India Company. He was educated at Harrow and Trinity College, Cambridge, and entered the business of his uncle, Edward Hardcastle, travelling in North America, where he had opportunities for studying natural history and making collections. He later joined the firm of Messrs. G. and R. Dewhurst, of Manchester and Preston, serving as a director for many years.

While at Harrow Dr. Melvill published, in conjunction with the Hon. F. Bridgeman, "The Flora of Harrow". In later years he accumulated and arranged three-quarters of the known plants of the world. The greater part of this fine herbarium, containing many valuable plants and including some obtained by Charles Darwin during the voyage of the *Beagle*, was presented to the Manchester Museum in 1904. The remainder, which consist of the grasses and ferns of the world, together with about a third of the known seaweeds, will shortly be added to the others at Manchester.

Dr. Melvill began to collect shells at the early age of eight, and during his lifetime this collection grew to be the largest known in private hands, comprising 22,500 species. He described more than 1000 new species of mollusca, by himself or in collaboration with others, including the late Robert Standen. His conchological contributions are very numerous, and comprise descriptions of species from South Africa, the Persian Gulf, the Arctic and Antarctic regions. He joined the Conchological Society in 1880, and was president in 1889 and again in 1895-96, on each occasion delivering an excellent address.

He was an original member of the Malacological Society (founded in 1893) and was its president at the time of his death.

In addition to botany and conchology, Dr. Melvill took a keen interest in British insects and made quite a large collection. He was a member of the Linnean, the Zoological, the Entomological, and the Manchester Literary and Philosophical Societies, being president of the last in 1897-99. For many years he was on the Court of Governors and the Council of the University of Manchester. He was a member of the Manchester Museum Committee, being chairman for several years. During his residence at Meole Brace Hall, he was honorary curator of the Shrewsbury Museum and served as president of the Caradoc Field Club.

An all-round naturalist, Dr. Melvill's knowledge of the mollusca was masterly, and on the occasion of the Victoria University conferring upon him the D.Sc., Prof. Lamb remarked: "It is chronicled of Solomon that he spake of trees, from the cedar that is of Lebanon, unto the hyssop that springeth out of the wall, but it is not recorded that he also knew by heart all the shells from the Arctic Circle to the Persian Gulf. That double weight of learning was reserved for the accomplished systematist, Mr. Cosmo Melvill, and those who know him will testify with what gracious modesty he sustains it."

J. WILFRID JACKSON.

WE regret to announce the following deaths:

The Hon. Sir John Cockburn, K.C.M.G., president of the Child Study Society, who was premier chief secretary in 1889-90 of South Australia, on Nov. 26, aged seventy-nine years.

Mr. Francis A. J. Fitzgerald, head of the Fitzgerald Laboratories, Niagara Falls, and president in 1916 of the American Electro-Chemical Society, on Oct. 26, aged fifty-nine years.