

Obituary

Mr. A. H. S. Lucas

AUSTRALIAN science loses a notable and versatile votary by the death of Arthur Henry Shakespeare Lucas, on June 9. The son of the Rev. S. Lucas, he was born in 1853 at Stratford-on-Avon and educated at Kingswood School, Bath, and the University of Oxford, where he was an exhibitor of Balliol College.

Going to Australia as mathematics and science master of Wesley College, Melbourne, in 1883, Lucas later became tutor and natural science lecturer at Trinity, Ormond and Queen's Colleges of the University of Melbourne. From 1893 until 1898 he was headmaster of Newington College, Sydney, after which he joined the Sydney Grammar School as mathematics and science master, and headmaster in 1920. He was also for some time lecturer in physiology at the University of Sydney. Retiring from school work at the end of 1923, he acted for two years as professor of mathematics at the University of Tasmania.

One of the founders of both the Victorian and the New South Wales Naturalists' Societies, Lucas was president of both at different times. In 1907-9 he was president of the Linnean Society of New South Wales, and he was a councillor until his death. For many years he was curator of the Algæ of the Sydney Botanic Gardens, and the last twelve years of his life was devoted to active research and wide collecting of Algæ, from Western Australia to the Barrier Reef, usually spending the summer months—including the last—with his co-adjutors, Mr. and Mrs. Perrin, near Georgetown, Tasmania, in this work. His last paper, "The Marine Algæ of Lord Howe Island", was read at the Linnean Society of New South Wales in June 1935. His "Introduction to Botany", written in conjunction with Prof. Dendy, is a well-known textbook to Australian students. But botany, although his chief love, was but one of many studies. In his teaching life, one learned that his personal pupils in the Senior Public Examinations had won University medals in eleven different subjects—these including all branches of science and mathematics. Besides papers on Australian lizards, in collaboration with the late Dudley Le Souef, he published two books on the animals and on the birds of Australia respectively.

Lucas's passion for acquiring learning led him also into the study of languages. A sound classic and English scholar, he extended his range of modern languages beyond the usual French and German to Italian, Spanish and Russian, by way of holiday pastime. The present writer, spending a summer vacation with him at Twofold Bay, found him reading "Don Quixote" in the original, while during the Great War he was requisitioned to interpret Russian in a law court, in the cause of some Russian refugees. Italian was a necessary concomitant to the study of

De Toni's work on Algæ. Far beyond Dr. Johnson's conception of learning, Lucas earned the famous epitaph on Goldsmith "Nihil quod non tetigit; nihil tetigit quod non ornavit".

A great teacher, a humorous and lovable friend, Lucas's wide influence was attested by the large and representative gathering which—at the shortest notice—attended Roseville Church to pay the last honours to a rare personality. He leaves three daughters and three grandchildren. H. J. C.

Dr. J. D. Unwin

WE regret to record the death of Dr. J. D. Unwin, anthropologist and head of Cambridge House, the University social settlement in south London, which took place after an operation at the age of forty years.

Joseph Daniel Unwin was born on December 6, 1895, the son of Mr. F. D. Unwin of Chantry House, Haverhill, Suffolk. He was educated at Shrewsbury School, and would have gone to Oriel College, Oxford, with a classical exhibition in 1914, had it not been for the outbreak of war. He served in the Northamptonshire Regiment and the Tank Corps, was twice wounded, and was awarded the Military Cross. After the War, he spent some years in Abyssinia. In 1928 he was elected a Fellow Commoner Research Student of Peterhouse, Cambridge. He then compiled a thesis in anthropology for the Ph.D., which was published in abbreviated form in 1933 under the title "Sexual Regulations and Cultural Behaviour". A fuller account of his research, with much additional material, was published as "Sex and Culture" in 1935. His theories of the relation of degrees or stages of culture and the intensity of sexual prohibitions, which was based upon evidence from no less than eighty tribes and peoples, attracted considerable attention and discussion. This book showed that Dr. Unwin had remarkable powers of analysing and marshalling cultural evidence. He had also engaged in research work for the Home Office on the subject of the imprisonment of debtors. The results of this research appeared in "Imprisonment for Debt" (1935). He also wrote "Notes on the Unwin Family" (1934).

Dr. Unwin's knowledge of social conditions and problems made his appointment as head of Cambridge House peculiarly suitable; and it was fully justified by his work for the settlement.

Miss Alice Balfour

MISS ALICE BLANCHE BALFOUR, of Whittingehame, who died on June 12, at the age of eighty-six years, was a naturalist born and bred, and her scientific interest in Nature persisted in spite of the social

distractions of her association with her brother, Arthur James Balfour, politician and philosopher. In her earlier days, her bent was shared and encouraged by a younger brother, Prof. F. M. Balfour, already a leader in zoology when he died at the age of thirty-one years. Later she paid particular attention to gardening, so that the garden at Whittingehame became famous for its beauty, and to the collecting of a full series of the butterflies and moths of East Lothian. Her knowledge of the specific characters and local distribution of these and of other living things was thorough, and her inquiries brought her often to the Royal Scottish Museum in Edinburgh, to which she left her natural history collections.

It would be misinterpreting Miss Balfour's life to regard science as dominating her outlook, for her intellectual interests were wide, and her chief activities were social, in the broadest sense, and personal; but it may be said that the sustained pleasure of her life depended upon her love of Nature. J. R.

WE regret to announce the following deaths:

Prof. Franklin D. Barker, professor of zoology in Northwestern University, an authority on Trematodes, on July 10, aged fifty-eight years.

M. Louis Bleriot, who made the first flight across the English Channel from Baraques, near Calais, to Dover, on July 25, 1909, in a monoplane having a three-cylinder engine of 22-25 horse-power, on August 1, aged sixty-four years.

Lieut.-General Sir Alfred Keogh, G.C.V.O., G.C.B., director-general of the Army Medical Service 1904-10 and 1914-18, and Rector of the Imperial College of Science and Technology, 1910-22, aged seventy-nine years.

Prof. E. J. Nanson, emeritus professor of mathematics in the University of Melbourne, on July 1, aged eighty-five years.

Dr. F. J. F. Shaw, director of the Imperial Institute of Agricultural Research, Government of India, aged fifty years.

News and Views

Dr. E. J. Allen, C.B.E., F.R.S.

On July 30, a special meeting of the Council of the Marine Biological Association of the United Kingdom was held in the rooms of the Royal Society in order to appoint Dr. Stanley Kemp, former director of the "Discovery" expeditions to the antarctic, secretary of the Association and director of the Marine Biological Association at Plymouth, the appointment to take effect on October 1. The present director of the Station, Dr. E. J. Allen, retires at his own request on September 30 after forty-two years of arduous service to the Association. During this period, Dr. Allen has seen the Station grow from being a small and poorly equipped second-rate institution to becoming the premier marine biological station of the world. We propose to refer in a later issue to Dr. Allen's great services to zoological science.

Dr. Stanley Kemp, F.R.S.

DR. STANLEY KEMP is probably the leading authority on oceanography at present living. During the years which he spent cruising in the Antarctic, he finally elucidated the circulation of the water in that ocean and proved its bearing on the habits and life-histories of the various species of whale which go south during the brief Antarctic summer in order to feed and grow fat and during this period fall a prey to whalers. He discovered the amazing fact that the largest of them all, the Southern Fin-Whale, feeds practically exclusively on one small species of 'shrimp' about 2 inches long. The baby whale when born is 20 feet long; it grows to a length of 50 feet during its first year, and attains its full size (100 feet long) in less than five years. He showed further that each antarctic summer is characterized

by an enormous growth of diatoms on which these 'shrimps' feed and consequently a rich oxygenation of the sea-water due to photosynthesis. As this water flows north to the antarctic circle it sinks from the surface to an ultimate depth of about 600 fathoms and it takes approximately five years to reach the equator. The sequence of antarctic summers can be traced in the patches of oxygenated water which it contains, and the intensity of the oxygenation of each patch marks the degree of warmth of the corresponding summer. Dr. Kemp's appointment is therefore a happy augury for the future of Plymouth and for fishery science in general. It is becoming increasingly clear that the variations in British fisheries are connected with variations in intensity of a southward flow of arctic water carrying with it stupendous harvests of diatoms and shoals of the most sought-after edible fish. Oceanographic exploration based partly on Plymouth may be as fruitful in the endeavour to elucidate the life-histories of these fish as antarctic exploration has been in unravelling the life-history of the whale.

Archæological Investigations in Syria

SIR LEONARD WOOLLEY'S report on the work of the British Museum's archæological expedition to Suedia, near Antioch, immediately before closing down work for the season (*The Times*, July 31) records the completion of excavation in the reserved area of the harbour site and the cutting of trial trenches on and around the hill station at Sabounia, two and a half miles inland. At the latter point, while the existence of a walled town at least as early as the Mycenaean age is established, the fall of the walls through the disintegration of the sandstone cliffs, on the edge of