

of the snow which half covers the ground allows of no other conclusion than that a thaw has set in, and that the snow covering will not long remain. In "Day Departing in the West" (171) the same artist has another attractive snow picture. There is a curiously unnatural appearance about "The Bathers' Pool" (765). Here a sandy beach is depicted, but the sand, instead of sloping gently to the sea, is cut away in an almost vertical "cliff" at the water's edge, the face standing at an angle which looks most unreal.

The sea scenes which appear in numerous pictures call for little comment, and, though some are pleasing, few are of outstanding excellence. In this branch of painting, the gap left by the death of C. Napier Hemy seems to remain unfilled. Now that the scientific spirit is beginning to permeate the world, and is no longer confined to a few specialists, it may be hoped that artists will come to realise that a true representation of Nature may be not inconsistent with the highest artistic success, while a travesty of Nature must fail to satisfy a large and growing section of the general public.

J. S. D.

ROBERT CHAPMAN DAVIE.

OF the sad fates that have befallen so many who have helped to win the war for us, the succumbing to an attack of influenza on return home after years of physical hardship in the war zone is of the saddest. That has come to Capt. Robert Chapman Davie, R.A.M.C., a botanist from whom much was expected as teacher and researcher. Capt. Davie crossed the Channel on his way home on January 25, was attacked by influenza two days later, and after a week's struggle died of pneumonia at Largs on February 4.

Born in Glasgow thirty-two years ago, Davie was educated at the Glasgow High School and at the University of Glasgow, where he graduated M.A. in 1907, obtaining a first class in English literature. Later, in 1909, he took the degree of B.Sc., distinguishing himself particularly in botany and in chemistry. In botany he was Dobbie-Smith gold medallist and also Donaldson research scholar. Whether botany or chemistry was to attract him for his life-work he had difficulty in deciding. The enthusiasm of his botanical teacher, Prof. Bower, finally determined his devotion to botany, and he became an assistant in the botanical department of his *alma mater*. In 1912 Davie migrated to fill the post of assistant in the botanical department of the University of Edinburgh, and in 1913 he was appointed lecturer on botany in the University. In 1915 he graduated D.Sc. of the University of Glasgow. His appointment a couple of years ago as one of the secretaries of the botany section of the British Association pleased him greatly, and was an apt choice of a man with much business capacity and wide botanical knowledge. An attack of rheumatic fever in early life had somewhat undermined his health, causing him frequently some heart trouble,

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and in consequence of this he was able to join the Army only in 1917 to fill a post where scientific knowledge rather than physical endurance was required, and he was at the time of his death senior chemist in the 4th Water Tank Company in France.

A prominent characteristic of all that Davie did, whether as teacher or as researcher, was that of precision, and his literary gifts enabled him, alike in the lecture hall and in his writings descriptive of his scientific research, to present his facts and arguments with a fluency of diction and a grace of style that ensured lucid exposition. His chief research was in the domain of the Pteridophyta, a natural consequence of his upbringing in the home of work in the group under Prof. Bower. An investigation of the East Asiatic ferns of the genera *Paranema* and *Diacalpe* was his first essay (1912), and in the course of settling disputed points of their relationships he entered the controversial field of the "fern stele and pinna-trace," wherein he reaped largely then and also later, carrying on his line of research from the ferns, through the Cycads, into the Angiosperms.

Davie's grouping of the ferns by the form of the leaf-trace in his last paper, published so recently as 1918 during his absence, is essentially in harmony with groupings to which Prof. Bower and others had been led by analysis of other characters, and shows that amidst the laborious examination of the dry bones of anatomy Davie's research was inspired throughout by thought of origins and adaptations. How, why, when, are its keynotes, and the facts, bald statement of which as evidence of difference or likeness satisfied many of the older writers on the same subject, interested Davie solely from the point of view of interpretation. This attitude finds expression in his most important paper—delayed in publication through the manuscript having been destroyed by a fire at the printers', and having to be rewritten—in an interesting analysis of the relative degree in which phyletic factors and those of specific adaptation have been operative in bringing about the forms of leaf-trace development in connection with water supply in plants. If the precision of his mind led him at the moment to segregate factors in the several groups and classes of vascular plants with a definiteness of generalisation which addition to the few data as yet available outside the ferns may show to require modification, the attempt and its methods are suggestive, and, carried further, as was his intention, must, in his hands, have thrown much light upon the proper appraisal of the value of anatomy in questions of obscure relationships of the higher plants, and given clues helping to the understanding of their phylogeny in relation to cosmic history.

On removal to Edinburgh, Davie took up the study of the Proteaceæ from the phyletic point of view; their conjectured relationship to Leguminosæ fascinated him. Assisted by a grant from the Royal Society, he spent some months of 1914 in Brazil making observations and gathering material, especially of *Roupala*, which, through its

heterophyly, promised enlightening information on the subject of the leaf-trace. Beyond an account of plants other than Proteaceæ which he had collected, Davie had not been able to complete the record of the results of his exploration. Alert in body and in mind, keen and undemonstrative in his work, thorough in everything, Davie gave promise of taking a prominent place amongst those upon whom rests the responsibility of scientific education and of extending the boundaries of science. Botany loses in him a talented and devoted adherent.

NOTES.

ON Friday, May 2, the Animal Anæsthetics Bill passed its second reading in the House of Commons. The object of this Bill is to insist on the use of anæsthetics in a large number of cutting operations on horses and dogs. The operations to which the Act should apply are specified in a schedule to the Act, in which a distinction is drawn between those which should be performed under general anæsthetics and those for which a local anæsthetic is required. It is worth noting that the Act does not apply to farm animals, on which operations for the improvement of their market value can continue to be performed without anæsthetics. Of the legislators who have been prominent in endeavouring to suppress experiments on animals performed with a view to prevention of human disease and suffering, we notice only the name of Sir J. G. Butcher as taking part in the discussion or supporting the Bill—another proof, if proof be needed, that the leading motive in these people is not kindness to animals or regard for their fellow-creatures, but opposition to the advance of science in general, and in our knowledge of the processes of life in particular.

In the House of Commons on May 2 the Bill to control the importation of goods infected, or likely to be infected, with anthrax, and to provide for the disinfection of any such goods, was read a second time. Sir Hamar Greenwood, in moving the second reading, outlined the incidence of anthrax in this country and the findings of the Anthrax Committee. The Bill contains two principal provisions. It gives power by Order in Council to prohibit the importation of goods infected or likely to be infected, either absolutely or except at any specified ports, and it empowers the Secretary of State to provide and maintain the necessary works for the disinfection of goods. It is also likely that, under the auspices of the League of Nations, international action may be taken with a view to the control of anthrax.

In the course of a discussion in the House of Commons on April 30 upon the subject of agricultural policy, the Parliamentary Secretary to the Board of Agriculture announced that the Government has decided to appoint a Royal Commission forthwith, and that all parties materially interested will be represented. He pointed out that a quick report is needed to enable the Government to frame a policy in the next few months. This may be obtained by an interim report on the more important branches of agriculture. It must be ascertained what guaranteed prices are necessary in order that, while good wages are paid, the industry is in a position to pay them. With such guarantees the farmer will have some idea of his economic position during the next few years which he has lacked during the past.

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AEROPLANES waiting at St. John's, Newfoundland, for the Atlantic flight are still weather-bound, and, so far as can be judged from information issued as we are going to press both by the Meteorological Office and by the Air Ministry, there are storm areas in the Atlantic over a considerable portion of the route which would be followed in the flight. So far as possible choice should be made of a period at which the Atlantic high-pressure area is centred over the Azores, when for the route eastwards the winds would probably be westerly and generally of no great strength; the disturbances so commonly travelling eastwards would, under these conditions, be pushed to the northwards by the region of high barometer. However unsatisfactory it may be to get no wireless information from ships over the Atlantic, it seems much more unsatisfactory to contemplate starting without such information, since the chances of bad weather greatly preponderate. Settled weather on the western and eastern sides affords no idea as to the weather in mid-ocean. Under the auspices of the United States naval authorities, Curtiss seaplanes are now being entered for the Atlantic flight. It is intended to span the Atlantic by a succession of "hops." The start had been timed for the early part of this month, flying from Long Island to Halifax, thence to Trepassey, Newfoundland, and with fair conditions it was hoped to leave Trepassey for the Azores within ten days of the start from Long Island, and Lisbon was to be the next stop. A report in the *Times* of May 6 from New York says: "On the eve of their departure for Newfoundland two of the American trans-Atlantic seaplanes were seriously damaged by fire."

THE Army Medical Department announces the institution of two new appointments—a Director of Pathology and a Director of Hygiene. According to the *Times*, it is understood that Sir William Leishman is to be nominated to the former and Sir William Horrocks to the latter. The object of the scheme, which originates with the Director-General, Sir John Goodwin, is "to link up under a definitely planned organisation the activities of the different departments and individuals hitherto concerned with the various problems of preventive medicine, pathology, and tropical diseases bearing upon the health of the Army in peace and war." Advisory committees are to be set up in each directorate, consisting of the Director as chairman, a deputy director, and the following members:—*Hygiene*: The professor of hygiene at the R.A.M. College, a representative of the War Office and of the Directorate of Fortifications and Works, a sanitary engineer, a civil professor of hygiene or medical officer of health of a county or large city, a physiologist, and a representative of the Local Government Board. *Pathology*: The professors of pathology and of tropical medicine at the R.A.M. College, two civilian pathologists, a civilian professor or expert in tropical medicine, and a representative of the Medical Research Committee. The scheme is a thorough one, and should increase the efficiency of the Army Medical Department.

THE death of Dr. Edmund Weiss, director of the Vienna Observatory for thirty-two years, occurred so long ago as June 21, 1917, but was not announced to the Paris Academy of Sciences, of which he was a correspondant, until March 24 last. Dr. Weiss was born at Freiwaldau, in Austrian Silesia, on August 26, 1837, but some years of his early life were spent in England, for his father held an appointment as a physician in a health institution in this country. On the death of that relative Dr. Weiss returned to his native land, and, after a course of education at Troppau and the Vienna University, he