

The results obtained are such that it can now be said with some assurance that the recovery of large areas of valuable land from the tsetse-fly has become economically feasible under the control of specially trained men; and it is to be hoped that the Department that Swynnerton built up will be allowed to continue its separate existence and carry on the great work for Africa which he initiated.

GUY A. K. MARSHALL.

Mr. B. D. Burt

THE tragic loss, through an aeroplane disaster, of Mr. C. F. M. Swynnerton, Director of the Tsetse Research Department, and of Mr. B. D. Burt, botanist to the Department, robs East Africa, at one blow, both of a distinguished zoologist and administrator and of a field worker who had a more intimate knowledge of the vegetation of Tanganyika, and probably of East Tropical Africa as a whole, than any other living botanist. The loss is the greater since news had just been received that the work of the Department was to be extended.

Bernard Burt was the son of Dr. A. H. Burt of York, who was himself a botanist. Young Burt, who was born in 1902, was educated at the Friends' School, Ackworth, and at University College, Aberystwyth, and came to Kew in 1923. He did not shine in examinations, but as an all-round naturalist he was outstanding. Although he held a temporary post in the Kew Herbarium, his real interest was in the open—the living collections, the local insect fauna, and the bird-life in Richmond Park. Later he assisted his cousin, Dr. J. Burt Davy, who was preparing the first volume of his "Flora of the Transvaal". Burt's opportunity came when the tsetse fly campaign was organized. The writer well remembers Swynnerton visiting the Herbarium in search of a botanist for field work in Tanganyika. Burt's services were pressed with every confidence. He went out to East Africa in 1925 as District Reclamation Officer, an appointment in the Tsetse Reclamation branch of the Game Preservation Department. When that branch later became the independent Department of Tsetse Research, he became the survey botanist for that Department. He threw himself with all his enthusiasm into the work, the interrelationships of the fly, the game and the vegetation, and it is doubtful which of the three held the greatest attraction, for one possessed, as he was, of such intense biological interests and sporting instincts. Though not the official ecologist to the Survey he became an ecologist in the widest sense. At the same time he always appreciated and fostered taxonomic studies, both botanical and entomological.

Burt was an excellent collector. His herbarium material was usually sufficient for a five-fold distribution; a set each for Kew, the British Museum and the Imperial Forestry Institute, Oxford, a fourth and fifth set being retained in Africa for Amani and for his own Department. The collections as a whole were dealt with at Kew, though specialists at South Kensington and Oxford helped in the identification

of their respective groups. Burt's energies taxed the Kew staff to its utmost, one of his last sendings consisting of thirty-one cases. His material was always good, and often represented little-known or new species. But though he collected many novelties, they were not his first interest. He was concerned with the vegetation as a whole, the component species and the fly, though he was quick to spot a "beautiful new species", as he fondly termed them. He did not care for writing, and published little. When on leave, mountain exploration always had a strong appeal; he collected on Hanang and the Ngorongoro crater and surrounding mountains, besides the better known summits, and he was probably the only British botanist to climb and collect on the difficult ground of the old crater of Mount Meru.

Latterly Burt travelled much by air, surveying the vegetation and the haunts of various species of tsetse-fly. In order to see more of Central Africa he curtailed his last leave and travelled back to Tanganyika by car with a friend by way of Nigeria, French Cameroons, Belgian Congo, Ituri Forest, Kivu and Uganda, and of this he has left a graphic account. His love of fun, kindheartedness and fondness of children were evidences of a most attractive personality. Always abounding in energy and good spirits, he was exactly the man for the post, and his loss will be severely felt not only by botanical institutions in Britain but very specially by the Department of Tsetse Research. As a correspondent in the Territory writes: "I do not know how the Department will fill his place, for not only had he a unique knowledge of our country's flora, but he had to an unusual extent the gift of enthusing others". A. D. C.

THE above accounts of the loss which science in general, and East African science in particular, has sustained in the untimely deaths of Mr. Swynnerton and Mr. Burt, have come from two writers who are in a far better position than I to appraise the magnitude of that loss. As one who has worked for the last thirteen years under the direction of the one and in constant close association with the other, I am glad of this opportunity to add a few words about them in their capacities as leader and colleague. Mr. Swynnerton, in addition to displaying the qualities which have been described above, so treated his staff that they one and all looked to him more as guide, philosopher and friend than as to an official superior; he was an inspiration to greater and ever greater efforts to achieve the objects for which his Department was created, and by his kindly appreciation of all efforts, even the smallest, made each feel that his contribution formed a vital part of the general scheme. He never asked from anyone more than he was prepared to perform himself, and his visits to lonely workers were like an invigorating tonic, difficulties which had previously seemed insuperable disappearing, for the time at least, under his magic touch. His work was inspired by a genuine love for the Africans in whose country he spent so much of his life and his treatment of them was characterized by a patriarchal attitude in the best sense of that word.

Mr. Swynnerton's qualities as a naturalist have been described; no less than he, was Mr. Burt a lover of Nature, and a born observer; the great qualities of the latter in this respect, his delight in all such observations, and the enthusiasm which he gave to them, all combined to make him a companion whose presence not only lightened many an arduous day under the trying conditions of the tropics, but also increased beyond measure the profits gained from such toils; to travel with him through the African forests was an education, especially in the latter days as his own experience and knowledge grew. His eagerness to co-operate, his entire lack of selfishness, and the kindly enthusiasm with which he shared the fruits of his observations and experiences, often won at the expense of such arduous endeavour as one of lesser physical strength would have been incapable of exerting, made him the most valuable of colleagues, and one who inspired all with whom he came in contact with some measure of his own love of Nature. This led frequently to their stimulation to attempt similar observations on their own, so that his work was often extended and enriched beyond what he could have achieved alone. One who was ever impatient of red-tape, he found in his chief, Mr. Swynnerton, a sympathetic leader under whom his natural abilities could develop and flourish in a way which would have been difficult under the more rigid and stereotyped conditions so often associated with Government service.

The deaths of these two leave gaps in their Department which it will be impossible to fill entirely; their colleagues and friends suffer the bitter loss of two sources of inspiration and infectious enthusiasm which were a constant and quickening stimulus to them; the campaign against that plague of Africa—the tsetse fly—and the study of East African ecology in general, both so essential to the proper development of the latent resources of that country, are the poorer by the disappearance at one and the same time of an able and inspiring leader, and of a gifted and indefatigable worker, who both possessed in no small degree the power to stimulate others to contribute to the subjects in which they were themselves interested and which it was their main object in life to foster.

W. H. POTTS.

WE regret to announce the following deaths:

Lieut.-Colonel C. H. H. Harold, O.B.E., director of Water Examination, Metropolitan Water Board, on July 18, aged fifty-three years.

Miss A. T. Neilson, lecturer in geology in the University of Glasgow, on July 8.

Mr. E. M. Nelson, formerly president of the Quekett Microscopical Club and of the Royal Microscopical Society, an authority on microscopy and microscope construction, on July 20, aged eighty-seven years.

News and Views

Sir Gilbert Morgan, O.B.E., F.R.S.

SIR GILBERT MORGAN is retiring from the directorship of the Chemical Laboratory, Teddington, under the Department of Scientific and Industrial Research, and is taking over a directorship in another important field of work. He was appointed director at Teddington in 1925, but had held previously the professorship of applied chemistry at Finsbury Technical College, the professorship of applied chemistry at the Royal College of Science, Ireland, the professorship of chemistry at the University of Birmingham, as well as the post of assistant professor of chemistry in the Royal College of Science, London. At Teddington, he was entrusted with the task of creating something out of nothing, and was successful in establishing an institution which has become a valued national possession. For this he received the honour of knighthood in 1936. Before his administrative duties limited the time which even he could find for research, Sir Gilbert published many papers in the *Journal of the Chemical Society* and other journals. In fact, his invention of the word "chelate" in connexion with co-ordination led his friends to name this branch of organic chemistry "Morganic Chemistry". To the Chemical Society he gave his services as editor, secretary and president, and he has been

president also of the Society of Chemical Industry. Sir Gilbert is one of those men who discreetly avoid giving the year of their birth in "Who's Who", but his age may be judged from the fact that he is now retiring under the usual Civil Service rules. He has the good wishes of all his friends in his new appointment and they are confident that the success which has crowned all his other activities will attend his new effort. Let us hope that, like Chevreul, he will have a medal struck in his honour on his hundredth birthday. Meanwhile, his "chelate" personal character will continue to attract the affection and admiration of all who come into contact with him.

Major F. A. Freeth, O.B.E., F.R.S.

MAJOR F. A. FREETH, who has been research manager of Imperial Chemical Industries, Ltd., since the formation of the company in 1926, is retiring from that position but has consented to continue his connexion with the company in the capacity of consultant. Major Freeth was educated at the University of Liverpool and at an early age gained considerable reputation as a physical chemist, becoming chief chemist to Messrs. Brunner Mond and Co. Ltd. in 1910. On the outbreak of the Great War, he went to France with the Cheshire Regiment, but was