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*Editorial and Publishing Offices :*

MACMILLAN & CO., LTD.,

ST. MARTIN'S STREET, LONDON, W.C.2.

Editorial communications should be addressed to the Editor.

Advertisements and business letters to the Publishers.

Telephone Number: GERRARD 8830.

Telegraphic Address: PHUSIS, WESTRAND, LONDON.

NO. 2880, VOL. 115]

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Science and Administration in East Africa.

THE members of the East African Parliamentary Commission, who returned to England on December 23, have not only a remarkable itinerary to record even in these days of rapid travel, but also, according to reports received from the five territories which formed the subject of their inquiries, a notable performance of work under peculiarly trying conditions. Moreover, their visit has been of special significance to scientific workers. Major Church, whose warm advocacy in Parliament of the claims of science to the greater support of the country and his exposition of the function of science in economic development led to his being charged with the responsibility of reporting on the scientific and medical services, and Mr. Ormsby-Gore, Chairman of the Commission and again Under-Secretary of State for the Colonies, have both given abundant proof in their public utterances of their appreciation of the scientific aspect of the problems of East Africa ; their realisation of the imperative need for the augmentation of staffs of existing scientific departments ; for the re-establishment of scientific institutions which have been either abolished or neglected ; and for the provision of funds for a campaign against the greatest scourge in equatorial Africa, the tsetse fly.

To scientific workers in East Africa particularly, the visit of the Commissioners must have been a source of lively satisfaction, for they have been given little sympathy or encouragement in recent years. The appointment of the Economy Committee in Great Britain in 1922 for the purpose of reducing expenditure in public departments set an example to the colonial governments. But while the recommendations of Sir Eric Geddes for the crippling of our home research and technical services were tempered by the growing consciousness among all classes in England of the important part played by science in industrial development, those of his prototypes in East Africa met with no such opposition. Science departments were regarded generally as luxuries, and were either "axed" completely or made aware that their continuance for more than another year or two was contingent upon some tangible and material proof of their economic value. For example, the discovery of a rich gold reef by a geologist singly responsible for the geological work of a territory the size of Great Britain might be accepted as a justification for his continued existence. A suggestion by the victim that the discovery of minerals of economic importance was not his primary function, or that such discoveries could best be attained by a scientific and systematic examination of the geology of the country, would probably have been regarded, by the legal luminaries and administrative officers to whom was generally entrusted the task of reducing expenditure, as a confession of incompetence.

Although in the past year the ravages of disease among the human and animal population ; the desiccation of certain hitherto fertile tracts of country due to unrestricted forest fires ; the impoverishment of the soil and the increase of insect pests due to indiscriminate grass burning ; the urgency of the need for local supplies

of fuel for transportation, industrial and domestic needs other than timber; the clamour of settlers and natives and merchants for the protection of economic crops against insect pests and diseases due to their partial realisation of the grave consequences attendant upon the neglect of precautionary measures, have had their effect upon the governments concerned, there remains yet considerable confusion of thought regarding the application of science to these matters. The mentality still exists which would starve research in tropical diseases because there had been no recent calamitous outbreak, would contemplate with equanimity the expense entailed by the forced removal of a population of tens of thousands from an infected area when disease overtakes it, but once the immediate catastrophe was past, relapse into the old indifference to research.

It is fortunate indeed that men like Mr. Ormsby-Gore and Major Church were members of the Commission. They made a special point of meeting every scientific officer available. In Northern Rhodesia the Commissioners met Dr. May, who for many years has advocated heroic measures against the tsetse fly. Dr. Dixey, the Nyasaland geologist whose recent discovery of dinosaur remains has aroused considerable interest in Great Britain, and whose discovery of coal in the Chiromo district with indications of a coalfield of vast dimensions is of the utmost importance to East Africa, was able to show Major Church round the scenes of his labours and to indicate what was urgently required in the nature of a geological survey. In Tanganyika Territory, Dr. Shircore and Dr. Butler discussed with him their divergent views regarding the relation of yaws and syphilis. Dr. Scott was able to show the tremendous improvement that he has effected in the sanitation of Dar-es-Salaam, which promises to eradicate malaria in this district. The Commissioners travelled far through the fly belts with Mr. Swynnerton, whose heroic measures against the tsetse fly will establish his reputation as one of the foremost personalities in East Africa. They visited also the Veterinary Research Laboratory at Mwapwa, where Mr. Hornby is conducting a series of remarkable experiments to test the relative values of hyper-immunisation and immunisation. In Uganda they met the important staff, consisting of Dr. H. L. Duke, Dr. G. D. H. Carpenter, and Mr. Fiske, whose investigations into sleeping sickness must form the basis of any campaign for the removal of this human scourge. There also Mr. Wayland and Mr. Simmons, the geologists, gave them a greater insight into their purely scientific work and their discoveries of oil in the vicinity of Lake Albert Nyanza than the mere perusal of their official report would indicate; and in Kenya Colony they were able to judge dispassionately of the effect of decentralisation of the research laboratories which followed the departure of Mr. V. H. Kirkman to Zanzibar. The visit to the Amani Institute in Tanganyika a few days before departing from Mombasa convinced Mr. Ormsby-Gore and Major Church also of the urgent necessity of carrying on the work started by Zimmerman under the German Government.

The Chairman of the Commission, in his public utterances, brought home to our East African communities the grave character of tsetse fly domination. Many of

his hearers learned for the first time that two-thirds of Tanganyika Territory is practically unfit for human or animal occupation through the activities of this insect and that in every territory visited the fly is increasing. He suggested that the malign influence of the tsetse fly upon tropical Africa is such as to merit the endowment by all civilised countries of a group of research workers to investigate the special problems connected with it.

Major Church did well to remind his Mombasa audience of the disadvantages of parochialism, giving the decay of the Amani Institute as an illustration of his theme. Although that great botanical research institute is ideally situated for carrying out work of vital importance to the whole of tropical Africa, inter-colonial jealousies have led each colony to evade making a contribution to its upkeep, with the inevitable results. He tentatively suggested also that the new bacteriological laboratories at Entebbe in Uganda might be supported by at least four of the East African territories owing to its advantages of situation. In the same way, the Veterinary Research Laboratory at Nairobi in Kenya Colony, founded by Mr. Eustace Montgomery, Veterinary Adviser to the Lake territories, might be considered as the principal veterinary research centre for East Africa, although the claims of the Mwapwa Laboratory in Tanganyika to this distinction must be considered. Both Dr. Walker at Nairobi and Mr. Hornby at Mwapwa have much to gain by association under one roof. On the other hand, the establishment of a research centre for investigations in connexion with tropical diseases other than sleeping sickness would be extremely costly, and in view of the present divergent lines of inquiry, and the sharp conflict of opinion regarding the nature of certain diseases, it is doubtful whether any advantage is to be gained at present by centralisation. But apart from any decision of the five territories to pool their resources to establish research centres catering for the needs of their populations, the need for co-ordination and co-operation between them is imperative.

Unfortunately, while it is admitted that the departments entrusted with human and animal pathological research are inadequately supported, in certain territories there is practically no provision for research of any kind. Not even the important discoveries of Dixey in Nyasaland, or the work of Wayland and Simmons in Uganda, have sufficiently stirred the imaginations of the members of the legislative councils in the other three territories to stimulate them to create geological departments. Very little systematic research is being done in these same three territories in connexion with their economic crops, namely, cotton, maize, coffee, sisal, and wheat, while the possibilities of cinchona plantations have never been explored.

It is hoped that this state of affairs will soon be remedied. Backed by the authority of the Commissioners, there should no longer be any excuse for timidity on the part of colonial governors, most of whom personally are fully alive to the necessity for scientific research, and it is sincerely hoped that they will without delay put bold estimates for its prosecution before the members of their respective Legislative or Executive Councils.