THE FUNCTIONS OF AN AGRICULTURAL OFFICER IN THE TROPICS.*

IT is a great pleasure to be here, and have an opportunity of meeting you all. I welcome, in particular, Sir Francis Watts, our first Principal, and take his presence as a great compliment. To see the College, to have an opportunity of grasping its objectives, of understanding its difficulties, of beholding the evolution of schemes which have been laboriously discussed both by the Governing Body and by the Staff here, make me thankful that at last I have been able to make this journey.

I sometimes wonder if the amount of time, labour and thought that has been put into the founding of this place, or the high hopes that are entertained for it, or the difficulties that have been surmounted in calling it into being, are fully realized. Great administrators such as Lord Milner and Lord Lugard; distinguished Governors of these islands, Sir John Chancellor, Sir Samuel Wilson, Sir Horace Byatt; Cabinet Ministers like the Duke of Devonshire, Mr. Thomas, and Mr. Amery; men of science such as your first Chairman, Sir Arthur Shipley, Sir David Prain, Sir John Farmer, Professor Wood, Dr. Hill; men of business like Sir William Himbury, Mr. Moodie Stuart, Sir Edward Davson, have given their brains and their time without stint to your service.

Colonial Governments and Colonial taxpayers—first, foremost, and most liberally, the Governments and Planters of the West Indian Islands—have contributed to our funds. The British taxpayers, as represented by the Imperial Treasury and the Empire Marketing Board, have done and are doing their full share. Crown Colonies and Dominions are beginning to realize what the College may mean to them, and have begun to contribute. Great British industries, such as the users of cotton and the makers of sugar machinery, have given liberal aid; so have also some Banks and private firms.

Now, though the work of creation is still far from complete, a beginning has been made, and your founders look to you, in full confidence that you will justify their plans, their hopes, and their visions.

When considering what I should say to you this morning, I reflected that the majority of your number are not undergraduates, but men, and men who have already given proof of more than average capacity and industry. I speak on the assumption that you are convinced of the importance of the profession you have adopted, and that you believe implicitly in the possibilities of your work.

These possibilities we have attempted to make as broad as possible. The Governing Body and the Staff here have set themselves to build up an Institution which will be a centre alike of teaching and research. We try to avoid duplicating work which can be efficiently and more economically carried out at home.

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* An address delivered at the Imperial College of Tropical Agriculture, St. Augustine, Trinidad, 6th January, 1929, by Sir James Currie, Chairman of the Governing Body of the College. From *The Empire Cotton Growing Review*, Vol. 6, No. 2 April 1929.

We are convinced, however, that, in the main, tropical problems must be studied in a tropical environment. We consider that the average University Graduate has experienced rather a surfeit of lectures, and that he has reached a stage at which direct instruction is profitably supplemented by actual association with specific pieces of research under the guidance of experienced workers.

The majority of the Professorial Staff have got important work in hand, in which you are privileged to share. So has the Cotton Research Station of the Empire Cotton Growing Corporation, which is at your door. The Empire Marketing Board also realize that the College furnishes a convenient centre from which much important investigation can be conducted, and you are thus provided with additional facilities for the observation of high-class research, if you are worthy of being infected with its spirit. We welcome members of the Agricultural Staffs of various Colonies. We hope that they benefit by their term here, and, in any event, you learn much from them as regards the conditions under which you will have to live and work.

I believe that, in the main, during the twentieth century, it is your type of work and its results that will justify some measure of alien guidance in the Tropics. Be not deceived; such guidance is on its trial today. Tested by the success that has attended our efforts to place scientific methods at the service of those who look to us for help, we British people have but moderate ground for satisfaction. We have concentrated on administration; we have lacked faith in what science has to give us.

I have talked recently to two friends, each holding a high official position, each recently returned from extensive Empire tours. Both of them have had unique opportunities of arriving at correct conclusions. They have both told me that, among much to justify legitimate pride, they blushed when they contrasted the economic development, based on scientific and medical research, in countries within the orbit of the British Empire, with the state of things obtaining under many foreign flags. I would like to cite another and different type of witness. I wonder if most of you have read a book I brought with me on the voyage out, and found most interesting reading. It is a collection of fugitive essays on scientific subjects, and has been given the title of "Possible Worlds." The author is Mr. J. B. S. Haldane, now of Cambridge University. The object that he has set before himself is, in his own words, that the average man should attempt to realize what is happening today in the Laboratories. In one brilliant essay—"Nationality and Research" is the name the author gives it—he tells us that in Europe two small nations, Holland and Denmark, lead in the output of scientific work per million inhabitants. He adds that they are, incidentally, two of the healthiest nations in Europe, and are both quite rich, though almost devoid of mineral wealth. This is because the are successfully employing biology; Denmark to her own Agriculture, Holland to the development of her Empire, which sets the example to the world in Tropical Agriculture and Hygiene.

Now, I am not content to read such criticism, especially since I entertain no doubt as to its truth. It is all very well to talk about British Administration and its excellence, the integrity of British justice, and the historic glory of the Privy Council. A hungry population intent on a much higher standard of living cannot exist on such things, indispensable preliminaries to social well-being though they are.

To listen to many eminent officials, one would almost think that political institutions were ends in themselves. I wrote to a distinguished tropical administrator the other day, and told him that I would yet find his subjects starving amid political perfection. I think he considered the criticism blasphemous.

But, even in much preoccupied Great Britain, there has been a stirring on the face of the waters, and an increasing comprehension of vital needs. More has been done in the Colonial Office during the last five years than in all its previous existence to make up the costly leeway, thanks, in the main, to the present Secretary of State and his enthusiastic and informed Parliamentary Secretary, Mr. Ormsby-Gore. A few years ago a strong Committee, presided over first by Lord Milner, and on his death by Lord Lovat, was set up to take stock of the situation, and the result was a remarkable document called the Lovat Report. If its recommendations can be carried into effect a great weakness and a great reproach will be removed.

I need not draw attention to the political and financial difficulties that will have to be surmounted before adoption is possible. One tangible result has already happened. Mr. Stockdale, known to many in Trinidad, and now, I am glad to say, a Governor of the College, is installed in the Colonial Office as Assistant Agricultural Adviser.

I do, however, state without fear of contradiction, that if the Report, as a whole, were adopted tomorrow, the Staff does not exist to man the various services and Research Institutions which are indicated as essential. It is to you and to your successors that we, in the main, look to fill this gap worthily. The whole tropical world is calling; no Christian Missionary, Jesuit, Moravian, Presbyterian, or Anglican, no Mohammedan Sheikh, no Buddhist Mahatma, ever has had a greater opportunity presented for work and sacrifice. And this is an appeal to you all, undergraduates and post-graduates alike.

And the particular fascination of the work is that it benefits not only the particular people among whom the worker's lot is cast, but the whole world fabric. Take a case in point. I have seen, during the last twenty years, arid lands south of Khartoum redeemed from barbarism and destructive fanaticism, caused in the main by degrading poverty. A contented population is now putting these lands to productive use, primarily to their own benefit, but in a scarcely less degree to that of the workers of Bolton or Lyons.

I will not, however, talk further on the direct possibilities of the work that is going on here. If you did not agree with me you would not be in Trinidad today.

Before I conclude, I am going to say one word on some of what I may term the extraneous difficulties that many of you will certainly encounter, especially in the later stages of your careers. When I talk on scientific problems and the application of the scientific method outside certain narrow limits, I walk by faith and not by sight. When I talk of political and administrative difficulties, I feel on surer ground. At all events, what I say is the outcome of thirty years' work and experience.

What I would urge you to remember is this, that if, in the various spheres of work to which you will shortly be transferred, you fail to keep alive and sensitive to the problems, administrative and political, industrial and agrarian, with which the East is seething, your work will be shorn of much of its possibilities of usefulness.

Have you ever asked yourself what are the ultimate objects that a College like this exists to serve ?

The late Lord Morley, in a magnificent address, which he gave some years ago to the students of Manchester University, suggested that a primary object of their University was "to weave the strands of knowledge into the web of social progress." If you accept that as an adequate definition, you cannot attain your maximum usefulness unless you provide yourselves with a working knowledge of the history, the political and

economic conditions, and, if possible, the language of the particular country in which you find yourself at work. Do not hug the illusion that the political and economic questionings which are troubling Africa and Asia are passing phenomena, or that you will be unaffected by them. The problems that today confront India and Ceylon will tomorrow face West Africa and the Sudan. My own view is that, in the near future, in many parts of the British Empire, great changes will be seen so far as the organization of scientific work is concerned. If the Lovat Report be adopted, a good deal else may in time follow. State Departments of Agriculture organized on bureaucratic lines may be transformed. The antiquated pension system may disappear in favour of something more elastic. Research and administration may in time be grouped round institutions which the Report proposes to set up, and conceivably round various great industrial organizations, such as the Empire Cotton Growing Corporation and the Rubber Growers' Association.

These institutions and organizations, though liberally supported by the State and the various Governments concerned, will be independent and free. State action will limit itself to co-ordinating effort. By some such means I would hope that the support and interest of the people among whom they work may be assured, with beneficial reactions in all directions Otherwise there is a real danger that scientific work may become identified with particular theories of political or racial ascendancy.

In that case, as changes take place in methods of government, the toll that politics takes of economics may be heavy indeed. This has already happened in Egypt, to the detriment of the material interests of the community. Of India I have scanty knowledge, but I have read the Linlithgow Report, and I know a little of the rise and, I fear, of the partial decline of the magnificent Imperial Department of Agriculture which Lord Curzon inaugurated.

All such recent events will repay your study. The recent Report on Ceylon is available, and the Report of the Simon Commission, when it appears, will be of supreme interest. Much, too, may be learned from a study of the policy followed by the Dutch in their magnificent Empire in the East, with its fifty millions of people.

In this connection, Mr. Ormsby-Gore's Report on his recent Far Eastern tour is well worth careful reading. The Hilton Young Report on conditions in East Africa has probably appeared by now.

Finally, it is unnecessary to remind you, the majority of whom are heirs to the traditions of British Universities, that research knows no colour bar, and that a distinctive feature of British University life has been the absence of nationalistic feeling.

What the contribution of the East may be in the future to the cause of research is (again to quote Mr. Haldane) veiled from our sight. Japan, with such work only in its first generation, is already up to the level of most European countries. China, under American guidance, is starting and India has fairly begun. It has already produced one of the outstanding mathematical figures of the twentieth century. And all over Africa and Asia foundations are being laid; in Beyrout, in Palestine, in Khartoum, in Ceylon, in Singapore, to take examples known to me.

While the first and paramount duty of each of you is to become a master of his own craft, a comprehensive understanding of the problems I have touched on is no less essential. Equipped intellectually and technically, as I have tried in these few words to indicate, you will be fitted to take part in the task on the success of which the material, moral, and spiritual progress of the human race in no small measure depends. That task is the justification of the West in the eyes of a questioning and awakening world.