

Typical of these is the principle that finds expression in the claim to autonomy of institutions for higher education. We should be false to ourselves if we did not insist upon that in all territories under British administration, whatever the local circumstances may be. Indeed, not to do so would be wholly inconsistent with the professed policy of moving in the direction of Colonial self-government.

But autonomy can be granted and sustained only upon conditions. These can be summarized briefly as intellectual integrity and adequate intellectual standards. To assist the nascent institutions in achieving and maintaining these is perhaps the central task of the newly created Inter-University Council. It will recognize, I am sure, that such integrity and the guarantee of such standards are to be found primarily in men and women and only secondarily in institutions. Hence the *staffing* of the growing colleges with a sufficiency of men and women of the right quality must remain a first concern of policy. The Asquith Commission gave much anxious thought to the problem, and no doubt there will be general agreement with its view that extensive use of secondment from British universities will be essential to any solution. If this is accepted, it follows that secondment cannot be left to chance. It must be deliberately planned for, not only in the institutions overseas but also in the organisation and staffing of British universities as well. The call upon them is likely to be considerable. For some time to come, staffs will have to be recruited very largely from Britain. The Asquith Commission estimates that in the next few years some ninety posts of status not lower than that of senior lecturer will have to be filled in West Africa and the West Indies alone. Success cannot be achieved unless British universities in general frame and carry out a policy that makes it possible.

Next to staffing as a security for the fulfilment of the essential conditions we may place adequate provision for research. Here again the Asquith Commission is emphatic. Though it recognizes the important interest of the nascent universities, placed, as they are, in applied research, it also insists upon the primary importance of research of the more fundamental kind. In doing so it emphasizes the part played by the pursuit of pure research in securing precisely that intellectual integrity and that adequacy of standards which have been indicated as the proper conditions of autonomy.

A third security is to be found in the planning of degree courses and the setting of good standards of examination. There is good reason to believe that colonial peoples would themselves resent any suggestion that demands need to be tempered to meet supposed inferior intelligences. They would say, I am sure, that they have no use for a local university the degrees and standards of which are not accepted and recognized in the general fellowship of universities in the British-governed world. Should anyone be in doubt as to the capacity of colonial students to reach the required standards, he may be recommended to spend a few days in contact with students at some such institution as Gordon Memorial College, at Khartoum. His doubts would soon be dispelled.

It is essential, of course, that standards should be well-established and, as it were, automatic in operation before degree-granting powers are conferred on any institution. The period of supervision and control may be a long one. Under the present scheme the necessary guarantee is provided by an adaptation of the external degree of the University of London. It

will be for that degree that candidates will prepare during the interim period. Accordingly the University of London is assuming wide obligations in such matters as advice, assistance, adaptations of courses of study, and provision for the participation of local staff in the work of examination. In doing so it will need to co-operate closely with the Inter-University Council. If, however, its full intentions can be carried out, the resulting degree, though 'external' in name, will be very much more than that in fact.

Two other matters require mention. In most areas the only possible medium of instruction must be English. This requirement places a heavy responsibility upon the schools in such areas, particularly upon the secondary schools. The crucial need is for the training of teachers who will not only be competent in English themselves, but also capable of teaching the language competently. Thus is brought to light an immediate service which British universities have neglected hitherto but which they should now set themselves to discharge. It is that of providing advanced training in the teaching of English as a foreign language for those specialists whose services will now be so urgently needed in colonial institutions for the training of teachers. So far as is known, London alone among British universities is providing such facilities.

The other consideration is of even greater importance, and yet can easily be overlooked. It is clear that Colonial universities will fail of their purpose unless they become thoroughly indigenous, responsive at every point to the life and needs of the peoples they are to serve. But they will fail even more disastrously if they are not equally expressive of the great cultural tradition of the West, the expansion of which has brought them into being. In Britain that tradition finds expression in the total life of the community; the university is only the concentrated expression of the life which surrounds it. In most Colonial areas this is not so; the student there will be much more completely dependent in this sense upon his university than are his fellows in Britain. From such a consideration the conclusion is drawn that the new institutions must be wholly residential.

With an Inter-University Council so constituted, it is safe to draw the further conclusion that the peculiar double task of a Colonial university will be well understood and sympathetically assisted.

OBITUARIES

Lieut.-Colonel S. P. James, C.M.G., F.R.S.

By the death of Lieut.-Colonel Sydney Price James on April 17, tropical medicine has been deprived of one of its outstanding personalities. Of Welsh descent, James entered the Indian Medical Service in 1896, fresh from St. Mary's Hospital, where he had studied under Sir Almroth Wright. Soon he was involved in military operations on the North-West Frontier and later in China in the Boxer Campaign of 1900-1. He next found himself in the Government Bacteriological Department and thenceforward was able to devote his whole attention to scientific pursuits. In 1902 his opportunity came in his appointment to the Royal Society's Malaria Commission, and it was then that he forged that close co-operation with his friend, Sir Rickard Christophers, which resulted in their combined researches on this disease, which were vividly illustrated with coloured plates of the local

anophelines. He thus became recognized as one of the leading medical entomologists of India.

From 1899 onwards James was in correspondence with Sir Patrick Manson regarding the metamorphosis of *Filaria bancrofti*, and in 1900 he was able, quite independently, to trace the larval parasite to the proboscis of the mosquito (*Anopheles*), thereby confirming the discovery of G. Carmichael Low. Henceforward he maintained a close and affectionate connexion with the 'Father of Tropical Medicine'. 1912 and the succeeding year found him in Ceylon investigating the distribution of *Aedes aegypti* with reference to the possible spread of yellow fever, as suggested by Manson, and with this object he visited the Panama Canal.

At the outbreak of the War of 1914-18 James served in Iraq as A.D.M.S. to the Indian Expeditionary Force, and then in 1916 he fell victim to cholera in a well-nigh fatal attack of which he afterwards wrote a vivid personal account. Retiring from the Indian Service in 1918, he joined the Local Government Board (afterwards the Ministry of Health), where he rendered invaluable service as adviser on tropical diseases. He soon established a malaria centre at Horton Hospital, where infected anopheline mosquitoes were maintained for the production of therapeutic malaria, and where many strains of these parasites from Central Europe and Africa were studied. Henceforward there emerged from that institution a series of important researches on the clinical and chemotherapeutic aspects of induced malaria, much of which knowledge has been vindicated during the Second World War. It was fitting that he should become the main prop of the Malaria Commission of the League of Nations at Geneva. In 1922 he was appointed to the Epidemic Commission to Poland and during 1923-27 he took a leading part in inquiries on malaria in Russia, Central Europe and the Near East. In 1929 he was dispatched by the Colonial Office for special work on this disease in Kenya.

Retiring from the Ministry in 1936, James joined the Molteno Institute in Cambridge after the death of his friend, Prof. G. H. F. Nuttall; and then, with P. Tate, in 1938 he startled the protozoological world by the discovery of the exo-erythrocytic cycle of *Plasmodium gallinaceum* of the chick, from which he predicted a similar cycle of development of the malaria parasites of man which has not so far been confirmed. He maintained his interest in his favourite subject to the end, and rendered invaluable service as a member of the Chemotherapeutic Committee of the Royal Society. During 1937-39 he served as president of the Royal Society of Tropical Medicine.

In his numerous writings James adopted a vigorous, forcible and clear style. His main publication was 'Malaria at Home and Abroad' (1920). As a speaker he was at all times in demand. His delivery and clear diction were outstanding; in personality he was distinguished by peculiar charm, matched by his neat and polished appearance; in demeanour and deportment he more resembled a cavalry officer than a recondite student, and it was to these attributes, combined with a debonair and engaging manner, that his undoubted successes in international conferences were to be ascribed.

James was elected a fellow of the Royal Society in 1931 and created C.M.G. in 1938. He also received the Prix Darling from the League of Nations in 1934. Apart from his work, his chief recreation was yachting.

P. MANSON-BAHR

Prof. Leon Marchlewski

POLISH science has lost one of its most eminent workers by the death on January 18 of Leon Marchlewski, professor of medical chemistry at the University of Cracow.

Marchlewski was born on December 15, 1869, in Wloclawek, a small town in north-western Poland, near the German frontier. He attended the high school in Warsaw and then studied chemistry in Zurich, graduating there while assistant to the distinguished inorganic chemist Lunge. From this period of co-operation with Lunge date the well-known tables of physico-chemical constants of the commonest acids, prepared by the two together. Marchlewski eventually moved to Manchester, to work with E. Schunck, and under his direction entered the field of organic pigments, which became his chief interest for the rest of his scientific life. After five years with Schunck, Marchlewski became laboratory chief with Claus and Rey in Clayton. Early in the present century he returned to Poland, this time to Cracow in the former Austrian part, as chief of the City laboratory for food analysis. In 1906 he was appointed to the chair of medical chemistry at the University of Cracow, where he remained until the beginning of the Second World War.

Marchlewski's principal scientific interest was organic pigments, and chlorophyll was his main subject of research. He began investigations on chlorophyll in Manchester and continued them in Cracow. He and another Polish chemist, Marcell Nencki, who was working at the same time on hæmoglobin, succeeded in demonstrating the very close connexion between the breakdown products of these two substances. His book 'Die Chemie des Chlorophylls', published in 1907, was the fruit of many years of work, and was the first monograph of this field of research. The cramped laboratory conditions in Cracow did not permit Marchlewski to keep abreast of advances in chlorophyll chemistry due to the later work of Willstatter and Hans Fischer, but he continued to make valuable contributions to the subject. Thus in 1912 he isolated from sheep bile phylloerythrin, one of the most important degradation products of chlorophyll, making it possible for Hans Fischer to elucidate definitely the structure of chlorophyll. In the last decade the attention of Marchlewski was directed mainly to the ultra-violet spectra of organic compounds.

Marchlewski was an excellent teacher and lecturer, and influenced the many thousands of medical students in Cracow. He played a very important part in university life and was twice elected rector of the University of Cracow. Since 1936 he had been the vice-president of the Polish Academy of Sciences. For many years Marchlewski was a Polish delegate to the International Union of Pure and Applied Chemistry.

Marchlewski was the son of a landed proprietor; he grew up in the country, retaining throughout his life a keen interest in agriculture, and agricultural problems were his main preoccupation apart from chemistry. He was the organiser and first director of an agricultural research institute in Puławy. He was for many years supervisor of big estates in the Tatra mountains, owned by the nation and later incorporated in the Polish National Park. He was supervisor of the country estates belonging to the Polish Academy of Sciences in central and east Poland, which before the War provided financial