FIG. 1.—Sir Albert Cook, circa 1937.

A MEDICAL JUBILEE IN CENTRAL AFRICA

BY

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Medical men have always been prominent in pioneering expeditions, and the early story of East Africa is no exception to the rule. Livingstone's journeys never brought him as far north as Uganda, but his contemporary Stanley made more than one visit. He was much impressed with the country and the people, and in 1875 sent a dispatch to the *Daily Telegraph* describing them and appealing to Christian missions to send out pioneers to open up the country; he stressed the importance of sending a medical man by saying, "But oh, that some practical missionary would come here. . . . It is not a mere preacher that is wanted . . . it is the practical Christian tutor, who can teach people how to become Christians, cure their diseases." The response to this appeal came shortly afterwards from the Church Missionary Society, which included among the first party not only a practical engineer, Alexander Mackay, but also a doctor, John Smith. The story of these early pioneers is a matter of history. Unfortunately, the doctor never survived to reach Uganda, and although one or two other medical men followed they either failed to reach the country or were invalidated home after a short stay.

It was not until 1897 that the "practical man who could cure diseases" finally started the systematic practice of medicine in Uganda; and this year Sir Albert Cook, C.M.G., O.B.E., M.D., celebrates the jubilee of his arrival in the country. The work which he established was not the first medical work, as military garrisons had medical officers, but his was the earliest attempt at treatment of natives in that part of Africa. The hospital which he opened—Mengo Hospital—celebrates this year also the jubilee of its foundation.

The First Hospital

Sir Albert describes his early experiences graphically in his recently published autobiography, *Uganda Memories*. He

arrived at the east coast port, Mombasa, in September, 1896, with a party of missionaries, including the first nursing sister to be sent out—Miss Katharine Timpson. She became the matron of Mengo Hospital and later married Dr. Cook, and for many years was his very able assistant in the work. There was no way into the interior in those days other than on foot, and the preparations for the three-months journey took a great deal of time at the coast before the "safari" started out. Hundreds of porters had to be collected and all the baggage divided into suitable loads for head carriage. Food for the journey for such a large number, travelling for long periods over barren waterless wastes, was a major problem, and it was some time before a start could be made. Dr. Cook began his medical work on the journey, and his memoirs tell of many interesting experiences.

At last, in February, 1897, the party arrived at Mengo, the capital of the native ruler of Uganda. They were greeted by the small European community, consisting of a handful of Government officials and a few missionaries. The doctor wasted no time in getting down to work, and in a few days he was already conducting a clinic and treating numerous African patients. It is interesting to read that at first the missionary authorities were doubtful of the wisdom of starting medical work and wished to send Dr. Cook up-country to pioneer. Ultimately wiser counsels prevailed, and the first hospital in the interior of East Africa was opened at Mengo in May, 1897. Conditions were exceedingly primitive in those early days. The buildings were constructed of reeds with a grass thatch, but patients were admitted and lay on locally made wooden beds. Operations were performed in a separate small reed hut. The cost of drugs and equipment was fantastically high, and the difficulties of obtaining supplies, which had to be brought up by head-porterage for a three-months journey from the coast, can only be imagined to-day. A four-gallon tin of paraffin oil cost £4, and often arrived half empty, as the porters did not take long to discover that a small hole punctured in the case helped to lighten the load considerably as the days wore on. We read that this difficulty was overcome by packing bars of soap round the tin of oil in the case. Epsom salts cost three shillings a pound.

But Dr. Cook has always believed in doing thoroughly whatever he did, and the work was founded on a firm basis. In the library of the hospital to-day there are shelves containing bound copies of the *British Medical Journal* from the early years of the century and the *Medical Annual* from the year of the doctor's arrival. Another feature is the rows of neatly bound volumes of case sheets with detailed histories and treatment of every patient admitted from the start. The first sheet gives an account of a patient treated on the journey up—a European who died of osteomyelitis of the iliac bone following a gunshot wound. The care taken with these records is clearly shown in one of the earlier volumes, where many of the temperature charts are ruled by hand, as a consignment of charts had failed to arrive from home.

The Present Building

Two years after his arrival Dr. Albert Cook was joined by his brother, Dr. Jack Cook. The former had completed his medical course at St. Bartholomew's Hospital, but his brother came from University College Hospital, and, with his qualifications of M.S., F.R.C.S., might have had a brilliant career in London if he had not decided to devote his surgical skill to missionary work in the heart of Africa. The partnership of the two brothers has become classical in the annals of medical missions, and their reputation reached over wide areas of Africa.

The first hospital was soon replaced by a much more ambitious building in mud and wattle. Unfortunately this was struck by lightning and burned to the ground soon after it was completed. Hundreds of pounds' worth of surgical instruments and equipment were lost. It is amusing to read of the fate of recently arrived glass-fronted instrument cupboards. Over-enthusiastic helpers, with no conception of the nature of glass, hurled these cupboards out of the burning operating theatre, and the roar of the flames was augmented by the crash of breaking glass. The present main hospital block was constructed in its place and, although built only of sun-dried bricks, this building has now stood up to the rigours of a

tropical climate for over forty years. Other structures were erected from time to time, but in the main all the buildings are over twenty-five years old.

The practice of medicine and surgery was carried out on virgin soil, and opportunities for original work were numerous. Epidemics of appalling severity constantly swept the country. Smallpox was one of the earlier problems met with. Dr. Jack Cook had brought out with him one small tube of lymph, and with this four or five youths were vaccinated. Unfortunately, the "follow-up" department is one of the last features of an African hospital to be successful and all the boys disappeared. By a coincidence, a few days later the doctor's wife saw in the native market one of the lads with the unmistakable scab of a successful vaccination on his arm. He was brought back to the hospital and a few precious drops of lymph obtained and other direct vaccinations performed. Before long the obvious immunity conferred brought other natives along, and soon hundreds were being vaccinated daily. In the early years of the century another deadly and mysterious malady made its appearance and a great number of natives died. Dr. Jack Cook had read an article with a description of the recently recognized disease trypanosomiasis. He soon realized that they were dealing with an outbreak of what was subsequently to prove such an appalling scourge to Uganda. Reports which he sent home led to the sending out of the Commission which did such yeoman service towards eradicating the disease.

By 1910 the hospital was lit by electricity obtained from a charging plant, and this made it possible at that early date to install the first x-ray apparatus. For many years this was the only plant in the country and it proved a very valuable asset.

The hospital had grown until, by the time of the outbreak of the war of 1914-18, it was in a position to become at once the main base hospital for Uganda during the East African campaign. The European staff at that time consisted of five or six doctors, and eight sisters, with a dispenser, an electrical engineer, and others. Convoys of sick and wounded began to arrive and the hospital was filled to capacity. Extra wards were quickly erected, and at one time there were as many as 530 patients. The hospital has special blocks for European and Indian patients, so that all comers can be dealt with.

FIG. 3.—Mengo Hospital central block to-day (built 1904).

Foundation of Medical School

After the war a medical school was started. Educated young Africans were enrolled and given a three-years course which fitted them to work as senior orderlies or medical assistants. This school was carried on until 1934, when, at the request of the Government, the training of medical students was left to the newly formed medical school attached to the rapidly expanding Government hospital at Mulago, in Kampala. Mengo Hospital's part was the training of nurses and midwives. This work, again, was pioneered by Dr. and Mrs. Cook. The Midwives' Training School was started in 1918, and after a two-years course the girls entered for a Government qualifying examination. The need for African midwives became greater as maternity centres, each with ten or a dozen beds and an antenatal clinic, were rapidly opened up all over Uganda. Each centre was staffed by two or more trained midwives and was visited regularly by European doctors and sisters from Mengo Hospital. Other trained girls also started passing into Government service. This enterprise soon began to have a profound effect on the appalling maternal and infant mortality rates prevalent in Uganda, and much credit is due to the late Lady Cook, by whom the whole scheme was developed. A similar school for nurses was established in 1928 with a three-years course. Many of these girls after qualification proceed to the midwifery course and become registered by the Uganda Midwives Board as well as holding the nursing diploma. For a number of years now these girls have been

drawn from all the East African territories, and have afterwards gone back to work in Government or mission hospitals in Kenya and Tanganyika as well as Uganda, and some into the Belgian Congo. There are to-day about 120 girls in training for one or other of these diplomas.

Space forbids the detailing of more of the enterprises in therapeutic and prophylactic medicine and training initiated at this hospital by the Cook family. Their name became a household word in Uganda and the surrounding territories, and Dr. Cook himself and his wife were repeatedly afforded public recognition of their services to the country. Sir Albert and Lady Cook retired from active work in 1934. Throughout their long career both were inspired by a simple faith; they saw that Uganda could never fully benefit from the health services they initiated without also being given the gospel from which had sprung the same spirit of care for suffering in Europe hundreds of years before.

FIG. 2.—Second Mengo Hospital building, 1900. Destroyed by fire in 1904.

The B.M.A. in Uganda

In 1913 the small group of medical men in Kampala, the capital of Uganda, felt that the time had come to form a branch of the British Medical Association. The first meeting took place at Dr. Cook's house and he was elected the first president of the Uganda Branch. Ever since that time the B.M.A. has been an active organization in Uganda. A great deal of the inspiration has come from the enthusiasm of the staff of the Government hospital at Mulago with its medical school. The B.M.A. has been instrumental in building up the very close co-operation that exists to-day among all branches of the profession in Uganda, whether Government, mission, or private practice. Regular meetings are held at one or other hospital, when papers are read, lectures given, and cases shown. To mark the jubilee of its first president and of the commencement of regular medical work in the country the Branch is organizing an interterritorial meeting of the East African Branches to be held in Kampala in September this year. A series of meetings will take place over a period of three days, and papers will be read by delegates from the various Branches. A reception is planned in honour of Sir Albert Cook, who still lives in retirement in his lovely house, with its priceless library, overlooking the blue waters of Lake Victoria.

The story of these fifty years comes from a generation that is rapidly passing. There are few if any parts of the world to-day where there remain such opportunities of building up the structure of modern medicine on virgin soil. But so long as the tradition that these pioneers founded is preserved, there need be no fear for the future. It is a tradition which includes the acceptance of nothing shoddy or second-best in medical practice or teaching; attention to detail; constant endeavour to improve on what has already been started; and a determination that only the best in Western medicine and nursing shall be handed on to the indigenous professions being built up. But in addition emphasis must be laid on that essential part of medical mission work—the handing on of the spirit of self-sacrifice so perfectly exemplified in the life of the Good Physician.

THE NUTRITIOUS LOAF

The nutritional value of bread was the subject selected by Sir Jack Drummond for his Sanderson-Wells lecture delivered at the Middlesex Hospital on June 24. He pointed out the close relation of bread to the standard of living. When the standard rose the tendency was for bread and flour consumption to fall and for sugar consumption to increase. During the war the consumption of bread rose by 17%.

The search for a white loaf could be traced far back in history. The people of an earlier period, like many to-day, associated a dark loaf with adulterated or inferior flour. In the middle of the nineteenth century the development of roller milling enabled the millers to mill far more wheat and to produce a much whiter flour. It was not then suspected that the production of the more attractive flour might be at the expense of nutritional value. Later it was suggested that white flour was not as nutritious as it should be, but there was lack of evidence on the point until about the twenties of the present century, when it was demonstrated that certain dietary factors were missing. Had the war not come, with consequent shortage of shipping space, Sir Jack Drummond was convinced that this country would have taken the same course as the United States in reinforcing the flour by various elements considered appropriate.

The question of the use of the wheat berry was one of balanced economy. The optimum point was 82 to 85% extraction; beyond that point digestibility was reduced because of the bran. Colour confused the problem. A compromise was reached with 80% extraction, which assured a loaf of acceptable appearance, texture, and colour, and of a nutritional value which, taking into account the rest of the diet available, should afford adequate nutrition. Medical and scientific opinion was strongly in favour of the retention of the various ingredients in the process of milling.

It was quite wrong to assume that bread was a starchy food. It did indeed contain a good deal of starch, but it was also one of the chief sources of good and cheap protein. Bread was important, along with potatoes, as an energy-giving food, and because of this it was desirable that both these foods should be unrationed. As soon as it was necessary to ration bread or potatoes the nutritional programme was jeopardized. Bread, of course, was now rationed, and the only "buffer" source of energy was potatoes, the supply of which was notoriously unreliable. When there was not a free supply of energy available in the form of these two staple foods the vulnerable groups of heavy energy expenders were liable to suffer, adolescents failed to gain weight, and so forth. This would not be put right until bread rationing could be called off.

IMMUNIZATION AND VACCINATION

L.C.C. PROPOSALS

Proposals on immunization and vaccination have been submitted to the Minister of Health by the London County Council as the local authority for carrying out certain duties under the National Health Service Act. At present, diphtheria immunization in London is undertaken by whole-time and part-time medical officers of the metropolitan boroughs, and also by general practitioners at sessional rates at maternity and child welfare centres, and by general practitioners on a fee basis. The Council regards these arrangements as satisfactory for its general plan and proposes to continue and to expand them where necessary.

Special efforts will be made to increase the number of immunizations in areas where at present the proportion of children immunized is below 50%. In only seven metropolitan boroughs are more than 50% of the children under 5 immunized. The state of affairs is more satisfactory with children of between 5 and 15, over 50% of whom have been immunized in 18 out of 29 boroughs (in Kensington the proportion in the middle of 1946 was over 86%). It is hoped to bring the percentage of immunized children in London to 75 or 80%. Parents are to be given the choice of having their children immunized either by a clinic doctor or under the general practitioner scheme. General practitioners are to be encouraged to advise parents of the importance of post-Schick testing, and to arrange, if they carry out the tests themselves, to send a record of the result to the Council, or, if they prefer, to send the child to the Council clinic for test. Special measures are to be taken through health visitors to encourage the acceptance of immunization.

For children of school age the immunization facilities will be available at clinics and child welfare centres and, from the "appointed day," special immunization sessions at day and residential schools. At these sessions the services of whole- or part-time medical officers and of general practitioners on a sessional basis are to be utilized, and parents who so desire may have their children immunized by a general practitioner at his own surgery or at home. Here again there will be arrangements for post-Schick testing after primary immunization (but not for children given reinforcing doses). All medical officers or general practitioners taking part in the immunization arrangements will be required to provide records in a form determined by the Minister, and all general practitioners in the county, whether or not they intend to provide general medical services under the Act, will be invited to participate in the immunization scheme.

Infant vaccination against smallpox will be encouraged to ensure that at least as many children are vaccinated as immunized. Parents will be asked to indicate whether they wish to take their children to a vaccination session at a convenient centre or to have vaccination carried out by the family doctor. Similar arrangements will be made to those outlined for diphtheria immunization concerning the keeping of records and the payment of fees to general practitioners. With regard to whooping-cough, until the value of inoculation has been fully established the question of a comprehensive scheme for the county is to be left in abeyance. Eleven boroughs at present provide for such inoculation. A scheme for inoculation, sub-