The CENTRAL AFRICAN JOURNAL OF MEDICINE

Vol. 1. No. 2 MARCH, 1955

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PUBLISHED BI-MONTHLY, ANNUAL SUBSCRIPTION £2 2s. 0d.

Eheu, Fugaces Labuntur Anni

BY
W. H. WATSON,
O.B.E., M.D. (Glasg.)
Zomba, Nyasaland.

As a raw Medical Officer about to be sent to Karonga in North Nyasa in the year 1926 I asked the Director of Medical Services for advice about my future work. He replied succinctly, "Send in your returns promptly and never more than a month late; do not quarrel with the District Commissioner; do what you can professionally and think thrice before operating." The wealth of worldly wisdom in these precepts and in the order of them was beyond me at that time. Indeed, I rather resented them, but I had not been long in a district before I realised I could not have received better advice.

Karonga even yet is not a very populous station, but, when I went to it, the official community numbered only two and the unofficials also two. It is situated at the north end of the Lake Nyasa only twenty miles from the Tanganyika border. There were no motor roads in the area and communication was by the small Government lake steamer which called once every four weeks. She brought us food and drink, mail and the gossip of Nyasaland which kept our tongues wagging until the next visit. Mail also came overland by runner, taking 22 days from Zomba, but, at the request of the few residents in Karonga, the overland mail did not carry private letters, papers or parcels during the rains because they often arrived pulped from heavy rain or actual immersion in flooded rivers when the runner had a mishap fording them.

Travelling to Karonga by lake was a leisurely affair taking one week from Fort Jameson, at the south end of the lake. The ship burned wood and had to stop at wooding stations as well as the few lake ports, or rather anchorages. The decks were crowded with African passengers bound for Nyasaland, Tanganyika and even some districts of Northern Rhodesia. Every evening this human cargo had to be ferried ashore to cook and eat their food, sleep and, at grey dawn, be brought on board again.

With a small ship, only 340 tons, sailing in rough weather could be a nightmare. The Commander used to order passengers to lie down, and the inexperienced who disregarded his advice sometimes suffered bruises, and I have known of broken ribs. Few were exempt from sea-sickness; my eldest child was sea-sick when seven months old and, in very rough weather with a beam sea, even the Commander succumbed. There was, however, the great blessing that the ship came to anchor every evening and poor sailors had this knowledge to sustain them during their prostration. The saying "Ex Africa semper aliquid novi" applies to rough weather in Lake Nyasa, as it comes with a rising barometer and calm weather with a falling one. Poor sailors should therefore travel in the wet season and avoid the months of May, June, July and August.

While the lake steamer transported some sick Africans to and from hospitals such as Karonga, Chinteche, Kota-Kota and Fort Johnston, patients coming by lake usually arrived by canoe, which was a more comfortable mode of travel for a very sick person compared with being carried in a jolting machila.* Karonga Hospital received many patients from the Tanganyika shores of the lake, partly because it was accessible by canoe, but also because the lake shore people were lovers of warmth and disliked going up to cold places like Tukuyu in Tanganyika or even Livingstonia Mission at the south end of North Nyasa.

The District Commissioner and myself sometimes used the lake steamer to take us on ulendo (trek), but usually our lake trips were made in the station barge. One had to take precautions against the sun when travelling by barge, and once a new District Commissioner looked askance at me when I arrived on the beach ready to set out, dressed in long trousers, shirt, jacket, sunglasses plus an umbrella and a deck chair. I failed to convince him I was speaking from sad experience and that bare legs, shorts and a shirt meant that he would be in agony before night. He was, and his legs took three weeks to heal. Atrophic solar dermatosis of the backs of the hands was common amongst Europeans of fair complexion who had lived long on the lake shore. The Commander of the steamer, who was ginger fair, had this condition badly and was constantly scratching the backs of his hands. I had not been long in Karonga when he consulted me, but he was quite scornful when I advised him to wear mittens. About two years later, when he returned from leave, he told me with a rueful grin that he was sorry he had not accepted my advice. He had consulted a Harley Street dermatologist in London who had not only prescribed the same treatment, but had also charged him five guineas for his advice.

Hospital buildings were primitive twenty-eight

* A machila is a hammock slung on a pole which is carried on the shoulders of bearers.

years ago, but Nyasaland was a poor country and as yet there was no Colonial Development and Welfare (nor Federation) with generous hand-outs for capital expenditure. In 1926 the Medical Department spent only £30,342 inclusive of personal emoluments, which came to £19,489. If, however, a Medical Officer was willing to turn builder, it was amazing what could be done with a small grant of funds. My first building venture was an operating room with sterilising room and a ward of four beds attached, and, while I cannot remember the total cost, I do remember the bricks were made and burned for 8s. a thousand. Money went a long way in a remote place like Karonga, where labour was cheap. A first class bricklayer or carpenter received 25s. a month, while a labourer was paid 6s. a month. To offset these low wages local produce was cheap. Maize was 5 lbs. a penny, rice 60 lbs. for 3s., lake fish were four a penny (one was a meal in itself), meat was 2d. a lb., eggs four a penny, milk ½d. per pint, and a hand of bananas 3d. An African lived well on a penny per day. In 1927 the people in Karonga asked the District Commissioner why he did not introduce cents at 100 to the 1s., as in Tanganyika, where a traveller could buy small quantities of everything he wanted at low cost. In Nyasaland, with the halfpenny the smallest coin, the traveller was forced to buy too much for his immediate needs. The District Commissioner sought and received permission to import £100 worth of farthings. They arrived, and the job of getting them into circulation was solved when the District Commissioner and myself paid our staff wages in farthings! Alas, the scheme did not work. Every farthing which found its way into an Indian trading store—and they all did sooner or later—never came out again, and within two years farthings were as rare as sovereigns after 1931.

Karonga was no exception in the matter of hospital buildings. There was a burnt brick dispensary of two rooms, one of which was the consulting room cum operating room cum microscopy room; a Kimberley brick thatched building with four small dark wards; a burnt brick building to house about ten patients suffering from leprosy. Equipment too was primitive. The beds were locally made with stretched whole ox hides as mattresses. There was no operating theatre equipment, not even sterilising apparatus, so as an ex-houseman of Glasgow Royal Infirmary I was astonished to find myself by-passing Sir William MacEwen with his asepsis to become the contemporary of Sir William's teacher, Lord Lister, and his antisepsis.

As I have mentioned, I too turned builder, and amusing things can happen when a city-bred medical officer takes to building. Having no knowledge of the subject, but knowing that in a square or rectangular building the walls must be at right angles to each other, and not having heard how to make use of the Euclidean numbers 3, 4 and 5, I imagined that one made sure of the corners being at 90 degrees to each other by checking the length of the diagonals of the building and of each room. In my innocence I asked the District Commissioner if he had any log tables I could borrow. There were some in his office, but, learning what I wanted them for, and sensing some fun at my expense, he said he had none and suggested I try the agent at Mandala Store and, failing him, the local missionary. They had none, and of course no one admitted to possessing a surveyor's tape measure. I was forced to extract the square roots of the sums of the squares on the two sides of my various right-angled triangles by the long method and, with the aid of my wife's 60-inch dressmaking tape, I carefully cut string to the required lengths, tying pieces of coloured wool on to the string to mark the various corner points. Naturally I received offers of help and, on the day I pegged out the building, I had the District Commissioner, the agent, the missionary and two visitors to Karonga to help me peg it out. They pulled the string too tight or held it too slackly, they tripped over it or got it in a mess round their ankles. Pegs went in only to come out and, while I rechecked my lengths of string with my wife's tape, they censured the work done by the average European builders in Nyasaland who, I gathered, were extremely careless about pegging out a building, probably did not know how to extract a square root, and were certainly too rough and ready in their methods ever to check up on the diagonals. However, the work was eventually completed to my satisfaction and their enjoyment, and I had requests to help the others whenever they had a job of pegging out a building on hand.

Despite such "tenderfoot" episodes, I subsequently derived a deal of satisfaction from building in remote places. The pleasure probably lay in taking such raw materials as mud, poles and grass and fashioning a building out of them. Furniture for the buildings was made on the verandah of the medical officer's house, and here again the process started by going into the bush to select trees to be felled and cut into

planks. When viewed through the rose-coloured glasses of youth, the results of my efforts seemed admirable; but in 1944 I visited a dispensary I had built in 1928 and was dismayed to find it a drab little building and not at all what my memory of it had been.

While in no way disconcerted to find myself a tyro in building, I was disturbed to find I was poorly equipped to deal with Africans who, to my astonishment, had their own ideas about sickness, its causes and cure. I had read the abridged edition of Frazer's *Golden Bough* in my student days and should have known better, but magic appeared to be a remote and academic subject with no bearing on life in the modern era. Even the London School of Tropical Medicine forgot to mention that the bulk of the population would refuse my services. Practically the entire population of the country believed that illness resulted only when a person was bewitched or contravened a tribal taboo, and it was only when I realised this I began to appreciate what my Director had meant when he said, "do what you can professionally." Instead of patients flocking to the hospital, I found myself in the position of a salesman trying to sell my wares against a powerful sales resistance. It was not that the population failed entirely to give European doctors credit for being able to cure at least some diseases; it was rather that we were on trial and had to demonstrate by signs and wonders our ability to cure. Where we had a specific for a particular disease the people came to the hospital, or if there were conditions which the African doctors or witch-doctors failed entirely to benefit and we were demonstrably ahead of them, they also came. Thus under specifics they had learned through the years that we could cure malaria, yaws, syphilis, bilharzia, scabies and conjunctivitis and, under "demonstrably ahead of them," was our treatment of wounds, burns and fractures. It was, however, in the sphere of "internal medicine" that we had made no headway. With their beliefs the *vis medicatrix naturae* did not exist, and so the value of nursing in support of it was not appreciated. As might be expected where witchcraft and the breaking of taboos were the sole causes of disease, anxiety neurosis and what we now call psychosomatic illness were common and were often effectively treated by the African practitioners with their powerful emetics and violent purgatives, coupled with drummings and magical directives. One saw this mainly amongst semi-literate and literate employees of Government who had to report sick to the medical officer and who, one heard later, got better in a night by a specially arranged drumming in which the sick man danced to the point of exhaustion. I discovered in liquor epispasticus an effective treatment for those neurotic pains where the patient points to a particular spot and says, "It's just here, Doctor, I feel it." There was the required touch of magic about the blisters appearing overnight without the patient feeling any pain at the time of application which impressed and cured some of them. One such patient, who had recently been treated in this way, told a probationer friend on the hospital staff that the blisters were most effective, and the new probationer, never having seen liquor epispasticus applied, proceeded to paint one side of the patient's thorax with astonishing but nevertheless excellent final results.

Perhaps the most serious consequence of the failure to understand and accept European ideas on the causation of the serious diseases which afflict mankind was that, in the presence of an epidemic, nothing was done to prevent the spread of the disease, and the people wasted time looking for the wizards and witches responsible for the outbreak. In my third tour in the Dedza district I once had to go out with the Assistant District Commissioner to investigate a report of ordeal poisoning. An outbreak of measles had struck a number of villages a few months previously and there had been many deaths amongst the children. The usual accusations and counter-accusations of witchcraft had been made, and eventually four men and two women were implicated. They protested their innocence, and one of the men demanded that they drink the ordeal poison (Mwavi) to discover the real culprit. They had enough sense to arrange to drink the poison over the border in Portuguese East Africa, and one woman and the man who suggested the trial by ordeal did not return.

The field of action of the medical officer being a limited one, there was a certain monotony about work in a district hospital. Monday, Wednesday and Friday were bilharzia injection days; Tuesday and Friday were yaws injection days; Thursday was ulcer day and occasionally operating day; Saturday was prison and station inspection day. From time to time hospitals did admit the failures of the African doctors. Relatives brought the patient in as a last resort, and it was here, if the case were one demanding surgery, one had to go warily. Usually the patient was a bad operative risk, and to that one had to add the poor conditions under which one operated without trained assistance even for the anaesthetic and the degree of skill and experience one could bring to the operation which

was indicated. If the patient died people simply said that the doctor killed him. This is not so surprising as one might think, because, while we are astonished at the heroic treatment the African accepts at the hands of his own doctors, we are apt to forget what their thoughts must be when they see an anaesthetised patient apparently so near to death that he does not feel his leg being cut off. The older generation of doctors (including my Director) always advised the newcomer to avoid surgery at first and take the advice of the senior African on the staff about when it was safe to start operating. A conscientious doctor could empty his hospital by trying to do too much, and it never entered his head that collecting specimens could be misconstrued by the people into collecting human flesh for the purposes of witchcraft.

Another feature of African life which was and still is to a lesser degree an obstacle to the early treatment of diseases was the habit of calling a family meeting before any action was taken about a serious illness. One soon discovered that a family consultation did not mean one between husband and wife. Marriage is the union of two families, not of two individuals, and if the wife is ill her relatives consult, and vice versa for the husband. If a child of the marriage is sick, it depends upon which tribe one is dealing with whether the mother's family consult or the father's. Anyone who broke the tribal rule in this matter suffered. On one occasion a young tax clerk who was out in the district, heard that his wife, who lived within sight of the hospital, was in difficulties over her first childbirth. She had been five days in labour, was moribund, and died a few hours after I had removed the dead infant, which came away without any difficulty. I heard later that he paid three months' wages in compensation to her family. I have met one African, and he was a hospital assistant, who had the courage to tell his fellow Africans that he would pay compensation only when the District Commissioner told him to do so.

In Karonga during five years I attended only three midwifery cases, all of them mission-trained women and married to educated husbands. Contrary to the lay belief, I discovered later in another district that African women do not have their children easily. This is not commonly due to organic obstruction, but to uterine inertia. They are told to bear down from the onset of pain, and in primipara they may become too exhausted to deliver themselves. On two occasions I was called to see two exhausted young "primips" whose labia were enormously swollen and who were actually not in labour at all. They had had false pains and had been bearing down for two days without being given food or drink. Africans also believed that if a woman failed to deliver her child after being in labour for twenty-four hours she had been unfaithful and would not deliver herself until she named her guilty partner. As a result, unfortunate and usually innocent women were pestered to name their paramours, and their pains frequently stopped from a combination of worry and physical exhaustion. Brought to hospital early enough, such patients often delivered themselves after emptying the bladder and giving them chloral and bromide.

There were no short cuts to success in gaining the confidence of the people. The attitude that the customer is always right had to be adopted, and this meant keeping cool and even tempered, seeing every patient who came to the hospital oneself, and visiting the people in their villages.

Europeans had and still have the reputation for impatience and bad temper. Admittedly it was galling to explain the necessity of an amputation in a case of gangrene of a limb, only to have the relatives refuse, and the temptation to hurl a few choice epithets at them was great. A good bedside manner was just as important with raw Africans as with Europeans. The surroundings of a hospital were strange and even fearsome to them, and a little thing like sitting a baby on one's knee, praising the child and accepting a wetting with laughter paid dividends. I found loaf sugar an excellent bribe, and mixtures for children were sweet ones in my hospitals.

The necessity for seeing each patient lay in the fact that, apart from the patients becoming accustomed to being handled by a European, the people preferred to be seen by the doctor rather than by members of the staff who, in the opinion of the patients, believed in witchcraft and probably practised it. As at home, being married and having children helped, and African women were grateful for being treated as human beings and not as chattels in the usual African manner. My wife once had a lesson on the attitude of African men to their women. There had been a drowning fatality in the lake involving three children, and my wife asked our cook what he would do if she, myself and our son, aged three, were drowning. He answered that he would save me first, then the boy, and if she were not drowned by that time he would save her. My wife then asked what he thought would happen to me and the child without her to look after us.

The cook promptly said I would soon get another wife. He wasn't sacked; he was a good cook.

Government recognised how essential it was for District Medical Officers to travel and get to know the people, and there was a standing order that they had to spend 90 days a year travelling. It was an arduous business covering a district of 4,400 square miles on foot and by pushbike, but it kept one fit. At first few patients consulted me, but by the end of my second tour each halt meant a few hours' work seeing and treating them. Those I could not treat were advised to report to Karonga hospital, and eventually quite a high percentage of them did come in for treatment. Minor operations under local anaesthesia made excellent propaganda, and microscopic demonstrations of the miracidia of *S. haematobium* darting all over the field were most popular. I did, however, wish that a hookworm was the size of an ascaris. Sieving stools and demonstrating them made no impression, and I always hoped that each village would produce a tapeworm or ascaris.

A drive to induce the population to make and use pit latrines was not popular, but, as I had the support of the paramount chief, who was educated and fined defaulters, there was great activity in the villages when they heard that I was coming. To comply with the order many villagers at first built excellent little houses over their pits, but examination frequently revealed that the pits under the well-constructed tops were only six inches deep. It was therefore necessary on arrival at a village to send the African sanitary inspector round with a pole to test the depth of each latrine. In outlying villages I thought it was a bit hard to expect defaulters to walk perhaps anything up to a hundred miles to have his case heard before the chief, so there grew up the custom of parading the defaulters and giving them loads to carry to the next halt without payment. This met with the approval of my carriers, who had easy days jeering at the defaulters for fifteen to twenty miles. I was not so pleased when, years later, I discovered that my nickname was Chimbuzi, meaning a pit latrine!

The main attraction of ulendo work in North Nyasa lay in the fact that the district is the most mountainous in Nyasaland, and it was a tonic to get away from the hot lake shore into the bracing air of the hills. There were three plateaus in the district, one of which, the Nyika, figured in Van der Post's recent book *Journey Into the Interior.* These plateaux could be dangerous for carriers in the cold season, as I found to my cost in July, 1927. I had been travelling in the Fort Hill area, and camp was broken one very cold morning at dawn because the next halt was twenty miles away through the hills. The way led up a small stream to an exposed ridge of the Misuku plateau 6,000 feet above sea level. As was my custom, I dawdled over breakfast to let the carriers get well ahead, and left about three-quarters of an hour after them. Halfway up to the ridge rain started to fall, and when I reached the top the full force of the driving rain, which felt like sleet, struck me. It exhilarated me, but when I went on I found my carriers sitting down hunched up and unable to move. They were men from the lake shore with only a thin piece of calico to protect them. Some of them were already in poor shape, and it was obvious that unless I got them off the ridge quickly they would die of exposure, and I had memories of the tale told me by the Chief Veterinary Officer who lost twenty-eight men in similar circumstances not far from where I was during the 1914-18 war. Luckily I had a full bottle of whisky with me, so, after sending a gurgle of it down each throat, with the help of my cook and houseboy, who were better clad and came from the Shire Highlands, we hauled them to their feet and drove them with kicks and blows from sticks into a sheltered spot, where I was lucky to find an old tumbled down garden hut. I soon had a fire going from some of the thatch and timbers of the hut, and with the heat of the fire and hot sweet tea they thawed out.

There was, however, a minor tragedy which brings home how near we had been to a major one. Good laying hens were 2d. each in this remote area, and they fetched 4d. in Karonga. My cook had bought twelve hens which were carried in two rough cages such as are used by Africans to carry fowls. Despite the fact that these hens were brought into the hut, only three were resuscitated by the warmth. The cook was the camp buffoon, and his lamentations over the loss helped to make the carriers forget their ordeal as they told him how good his nine hens would taste in a stew that very night, and how they would accept the feast as compensation for the kicks and blows he had given them.

Success in gaining the confidence of the people also depended on those official fates or furies, the exigencies of the service, permitting a medical officer to remain on a station for a whole tour or, better still, two tours, as I had in N. Nyasa. As a result of this I was able in my second tour to launch out into a variety of satisfying work, which included a hookworm

treatment campaign. Hookworm was very common in the lake shore plain and, examining four simple smear preparations before accepting a negative result, the result was 90 per cent. round Karonga. A treatment campaign therefore seemed a worthwhile effort. To avoid any possibility of poisoning by carbon tetrachloride, instructions were given that everyone should abstain from alcohol for three days before the treatment and no heavy drinker should take it without first consulting the medical officer. A known heavy drinker turned up at a village which was being treated and informed the dispenser in charge that he had been off beer for three weeks, had seen me and that I had given him permission to be treated. The dispenser, although thinking it strange I had not examined his stools and, if necessary, treated him at the hospital, gave him the carbon tetrachloride, with the result that he died of acute yellow atrophy of the liver. The campaign was stopped at once; the District Commissioner called a meeting of the chiefs and councillors, and they were told what had happened and their advice was asked. To my relief a councillor got up and told the meeting that the deceased, far from giving up beer, had been drunk in the councillor's company the night before he took the treatment, and in his opinion "the deceased's own foolishness killed him." The others agreed and requested the campaign to be continued. In my first tour I doubt if I should have been able to "put across" the idea of a treatment campaign, and I am sure a death attributable to it would have stopped it.

It is hardly possible to speak of a medical officer's life in Central Africa without introducing smallpox. Sooner or later it comes, and in 1928 it crossed over into N. Nyasa from the Isoka district of Northern Rhodesia and spread rapidly into the outlying areas and into the Mzimba and West Nyasa districts to the south. There being no medical officer in these two districts, I was told to deal with smallpox in them as well as my own. With a total area of 10,500 square miles to cover on foot and push-bike, I was constantly on ulendo, and my wife became so tired of living alone that she fled to friends in Tanganyika.

In these days of motor and air transport and refrigerators it is relatively easy to organise and carry out a mass vaccination campaign. In 1928 it was a different matter. Lanolated lymph which came by post from the United Kingdom kept its potency better than other lymph, but, while it could be used effectively in the Southern Province of Nyasaland, it quickly lost potency when sent by runners to remote districts, and whole batches would be useless. Reliance had therefore to be placed on quarantine of infected villages, together with isolation of the patients in grass shacks outside the villages. At first, when visiting the sick, I attempted to take the usual precautions to prevent either myself or my dressers from carrying the disease. I forgot, however, I had no civilised hospital laundry behind me and, after exposing what overalls I had, then my clothes, and found myself down to my pyjamas, I gave up the contest and was content to wash my hands and hope for the best.

It was during these protracted ulendos lasting up to two months that I learned the meaning of the expression "living off the land." I ran short of cash and food, but, being well known, the Africans in charge of the occasional small trading stores handed over what cash I required for I.O.U.s, and chiefs and headmen also accepted them. While I never got to like the stodgy maize porridge of the African, I fared well with plenty of game, beans, onions, sweet potatoes and African beer. Beans I liked, but they were very flatulent and my "rumblings abdominal were something phenomenal," much to the delight of the carriers, who nicknamed me Njobvu, the elephant. This honorific title, unlike my other one, unfortunately did not stick.

It is my impression also that whooping cough and measles were more severe in their epidemic form in the past. There was less movement of the population and it was possible to find villages which had not been visited by these diseases for up to twenty years. When they did arrive their effects were so deadly that it is not surprising Africans had recourse to witch doctors and trials by ordeal.

While it was a great advantage to have taken a course at a Tropical School before arriving in Nyasaland, I must confess it filled me with preconceived ideas as to what I should find. I expected to be dealing every day with the dreaded varieties of subtertian malaria, the complications of amoebiasis and with trypanosomiasis. Instead I found malaria as seen amongst African out-patients a comparatively mild disease. Amoebiasis was rare and trypanosomiasis practically non-existent. Even now I have no idea as to the role which malaria plays as a primary cause of death amongst Africans living in a hyperendemic area such as Karonga. Occasionally I was able to say that a particular infant died of cerebral malaria, but I saw many more die of enteritis and

broncho-pneumonia; and lobar pneumonia was the main killer amongst adults. Certainly amongst children chronic ill-health from malaria, hookworm disease and bilharzia was common; but by puberty, which was delayed, most of the boys and girls appeared to have established a *modus vivendi* with their parasites and got along reasonably well, although at Karonga all suffered from varying degrees of secondary anaemia.

On the other hand, amongst Europeans and Indians who failed to take proper precautions, including that Central African favourite, 5 grs. of quinine daily, malaria was a deadly disease. Bacillary dysentery, though frequent, was luckily mild. In out-stations, because officials and missionaries were often on ulendo, relapsing fever occurred. Missionaries were the common victims. They frequently travelled without a tent and slept in schools or huts where O. moubata lurked. In my first tour I was called in by the wife of the Scottish missionary at Karonga to see her husband, who had just arrived back from a foot ulendo in a collapsed condition. I took one look at him and rushed off on my pushbike and came back with a double whisky which I made him swallow with excellent effects. His wife was much more impressed by the action of the whisky than by the injection of N.A.B. he received after his blood had been examined, and before I went on leave she swore me to secrecy and bought a bottle of whisky from me just in case her husband ever took ill like that again. In my second tour there was a different missionary at Karonga and he too came home on one occasion in a collapsed state with relapsing fever. History repeated itself. The husband had his double whisky, and later on his wife bought a bottle on the quiet.

The older generation of doctors had some firmly held opinions about disease amongst Africans which have subsequently been discredited. I was told that there was no tetanus, no syphilis of the central nervous system and no valvular disease of the heart of the rheumatic type. Another belief was that it was impossible to anaesthetise a patient deeply enough with ether to perform an operation. Chloroform only was used, and a deadly anaesthetic it was in the hands of untrained Africans. One usually anaesthetised the patient oneself, then handed over to an African and hoped to keep an eye on him while operating. I had been trained to give chloroform or ether, but it was 1932 before I gave up chloroform entirely. New medical officers, trained to give ether only, soon proved to the older men that ether could be given satisfactorily, and so operating became less of a strain.

The reader may have noticed that no mention has as yet been made of the role of malnutrition as a cause of disease amongst Africans. Before 1930 the subject of nutrition was in its infancy, and my generation were apt to think that failure to use soap and a scrubbing brush was responsible for many of the skin conditions seen. It may therefore be of interest to quote from a paper of mine dated 1931 in which kwashiorkor is seen to be just round the corner awaiting discovery:—

> "There is another easily observed sign of hookworm in the young and to a less extent in adults of the Bantu race. Unfortunately it is present only in the advanced stages of the disease when the anaemia is marked and the patient ill and weak. It consists of a loss of pigment in the hair, coupled with a loss of tone which makes the hair mousy brown in colour, finer in appearance, not so crisp to the touch and, in well marked cases, almost silky when felt. It is a most striking condition in comparison with the usual crisp, black, curly condition of the hair normally found in the healthy African, and it reminded me at once of the similar condition found in Europeans suffering from tuberculosis. As in tuberculosis, there is also a tendency for the spread of the growth of fine hair on to the forehead and cheeks and along the spine. This sign is also found in African children and adolescents suffering from malaria cachexia, and one must remember to differentiate between the two conditions.
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> "The only reference I have seen to any change in the condition of the hair in hookworm disease is a note by Spear, who observed that in sufferers from this disease in Cuba 'the hair lacked lustre and looked dry.'
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> "These changes are often associated with a degree of infantilism in the patient, and Osler under cachectic infantilism lists hookworm, syphilis and malaria as the causes of this type. There is a possibility that this may be associated with endocrine gland disturbance, and Simonin states that 'Endocrine glandular insufficiency results from the toxic cellular degeneration of liver, pancreas and suprarenals in intestinal helminthic infestations.'"

Medical services have developed greatly since 1926. Thus not only are medical officers thicker on the ground, but, compared with three hos-

pital assistants then, there are now 68. More important is the difference in the quality of the subordinate African staff, of medical aides and sanitary inspectors with their higher educational standards and better training. There has also been a great increase in the use made of these services, as the following figures show:

	No. of new outpatients attending hospitals.	Inpatients.	No. of new outpatients attending dispensaries.	Total population.
1926	41,197	3,009	102,063	1,278,916
1952	391,254	32,976	691,079	2,453,506

At first sight it might appear that this rise in the number of patients indicates that the African is giving up his beliefs in witchcraft and taboos. In my opinion, however, this is not so, but is due rather to the increase in the number of specifics available for treatment. Even the above figures suggest this. The number of hospitals in the country has not increased since 1926, although all are bigger and better equipped. The number of rural dispensaries has, however, increased greatly, yet the rise in the number of patients attending them has not increased *pari passu* with the hospital returns. It would appear that patients tend to go to the hospitals where the sulphonamides and antibiotics are available in quantity, and possibly avoid the rural dispensaries because they still do not trust their fellow Africans in charge to the same extent as they trust medical officers. One has only to think of the difficulties of introducing a blood transfusion service to realise that witchcraft is still a potent factor in the life of the African. The most hopeful sign for the future, I think, is not the increased number of patients attending hospitals, but the steady progress being made in ante-natal, maternity and child welfare services.

I note with pleasure that this Journal is to appear under the aegis of Dr. David Livingstone, so it is perhaps fitting I should end these notes on the past by referring to another great missionary doctor of Central Africa, Dr. Robert Laws, of Livingstonia, who came to Nyasaland in 1875. In 1927 I had not yet met him, but it would appear that while he was on ulendo he had heard that I was also on ulendo and it was likely we would meet on the way. On a path in the bush we suddenly came face to face. I knew at once I was in the presence of a great man, and, while I was thinking this could only be Dr. Laws, a hand shot out and I was greeted with the words, "Dr. Watson, I presume." Would that I had been quicker witted and the greeting had been reversed!

Acknowledgment.

I wish to thank Dr. R. M. Morris, O.B.E., Secretary for Health, Rhodesia and Nyasaland, for his permission to publish this paper.