## CHAPTER V

## JANUARY TO JUNE, 1914

LAMBARENE, End of June, 1914.

At the end of January and the beginning of February my wife and I were in Talagouga busy looking after Mr. Hermann, a missionary, who was suffering from a bad attack of boils with high fever, and at the same time I treated the sick of the neighbourhood. Among the latter was a small boy who, with every sign of extreme terror, refused to enter the room, and had to be carried in by force. It transpired later that he quite thought the doctor meant to kill and eat him! The poor little fellow had got his knowledge of cannibalism, not from nursery tales, but from the terrible reality, for even to-day it has not been quite extirpated among the Pahouins. About the area over which it still prevails it is hard to say anything definite, as fear of the heavy penalties attached to it make the natives keep every case as secret as possible. A short time ago, however. a man went from the neighbourhood of Lambarene into some outlying villages to collect arrears of debt, and did not come back. A labourer disappeared in the same way from near Samkita. People who know the country say that "missing" is often to be interpreted as " eaten."

Even the keeping of slaves by natives, though it is no longer acknowledged as such, is not yet a thing of the past, in spite of the war that both Government and missions carry on against it. I often notice among the attendants of a sick man some whose features are not those of any tribe that is settled here or in the neighbourhood. But if I ask whether they are slaves, I am assured with a rather peculiar smile that they are only "servants." The lot of these unacknowledged slaves is by no means a hard one. They never have to fear ill-treatment, and they never think of escaping and putting themselves under the protection of the Government. If an inquiry is held, they usually deny obstinately that they are slaves, and it often happens that after a number of years of slavery they are admitted as members of the tribe, thereby becoming free and obtaining a right of domicile in a definite place. The latter is what they regard as most valuable.

The reason for the continued secret existence of domestic slavery in the district of the lower Ogowe, is to be looked for in the food conditions of the interior. It is the disastrous lot of Equatorial Africa never to have had at any time either fruit-bearing plants or fruitbearing trees. The banana stocks, the manioc, the vam, the potato, and the oil palm were introduced from their West Indian islands by the Portuguese, who were the great benefactors of Equatorial Africa. In the districts where these useful products have not been introduced, or where they are not well established, permanent famine prevails. Then parents sell their children to districts lower down stream, in order that these, at any rate, may have something to eat. In the upper course of the N'Gounje, a tributary of the Ogowe, there must be such a famine district: it is from there that the majority of the domestic slaves on the Ogowe come,

and I have patients from there who belong to the "earth eaters." These are driven by hunger to accustom themselves to this practice, and they keep it up even when they have a sufficiency of food.

That the oil palm was imported one can notice evidence to-day, for on the river and round the lakes where there are, or once were, villages, there are whole woods of oil palms, but when one goes about on the main roads into the virgin forest, where there has never been a human settlement, there is not one to be seen.

On our return journey from Talagouga we stayed two days in Samkita with Mr. and Mrs. Morel, the missionaries from Alsace. Samkita is the leopard station, and one of these robbers broke, one night last autumn, into Mrs. Morel's fowl-house. On hearing the cries of their feathered treasures, her husband hurried off to get some one to help, while she kept a look-out in the darkness, for they supposed a native had forced his way in to steal something for his dinner. Then, hearing a noise on the roof, Mrs. Morel went nearer in hopes of identifying the intruder. The latter, however, had already vanished in the darkness with a mighty spring, and when they opened the door twenty-two fowls lay dead on the floor with their breasts torn open. It is only the leopard that kills in this fashion, his chief object being to get blood to drink. His victims were removed, but one of them, stuffed with strychnine, was left lying before the door. Two hours later the leopard returned and devoured it, and while it was writhing in cramp it was shot by Mr. Morel. Shortly before our arrival another leopard had made his appearance in Samkita, and had devoured several goats.

At the house of Mr. Cadier, a missionary, we ate monkey flesh for the first time, for Mr. Cadier is a great sportsman. With me, on the contrary, the blacks are far from pleased, because I use my rifle so little. On one of my journeys we passed a cayman, asleep on a tree which was growing out of the water, and when I merely watched it instead of shooting it the cup of their indignation ran over. "Nothing ever happens with you," the crew exclaimed through their spokesman. "If we were with Mr. Cadier, he would long ago have shot us a couple of monkeys and some birds so that we could have some meat. But you pass close by a cayman and never even touch your shooter!" I willingly put up with the reproach. Birds which circle above the water I never like shooting; monkeys are perfectly safe from my weapon. One can often bring down or wound three or four in succession and yet never secure their bodies. They get caught among the thick branches or fall into the undergrowth which covers an impenetrable swamp; and if one finds the body, one often finds also a poor little baby monkey, which clings, with lamentations, to its dying mother. My chief reason for keeping a gun is to be able to shoot snakes, which swarm on the grass around my house, and the birds of prey which plunder the nests of the weaver bird in the palm trees in front of it.

On our return journey we met a herd of fifteen hippos, who soon plunged into the water on our approach, but a quite young one remained amusing itself on the sandbank, and would not obey its mother when she called to it.

During our absence Joseph had carried out his duties very well, and had treated the surgical cases with intelligence. On his own initiative he had dressed the festering stump of a man's arm with a solution of hydrogen peroxide, which he had to make from biborate of sodium!

The young man who had been mauled by the hippo I found in a very bad state. My three weeks' absence had prevented me from operating at the right time, and he died during the amputation of his leg, which I now hastily undertook. As he drew his last breaths his brother began to look angrily at the companion who had gone with him on the fatal expedition, and had come to the station to help to look after him. He spoke to him also in a low voice, and as the body became cold there began an excited duel of words between them. Joseph drew me aside and explained what it meant. N'Kendju, the companion, had been with the dead man on the expedition, and they had, in fact, gone on his invitation. He was, therefore, according to native law, responsible for him, and could be called to account. That was why he had had to leave his village to stay all these weeks by his friend's bedside, and now that they were taking the dead man back to his village he was expected to go with them, that the case against him might be settled at once. He did not want to go, however, as he knew that it would mean death. I told the brother that I regarded N'Kendju as being now in my service, and that I would not let him go, which led to an angry altercation between him and myself while the body was being placed in the canoe, where the mother and the aunts began the funeral lamentations. He asserted

that N'Kendju would not be put to death, but would only have to pay a fine. Joseph, however, assured me that no reliance could be placed on such statements, and I felt obliged to remain at the river side till they started, as they would otherwise, no doubt, have dragged N'Kendju into the canoe by force.

My wife was troubled that while the patient was breathing his last his brother showed no sign of grief, and was thinking only of the putting into force of the legal rights, and she expressed herself angrily about his want of feeling. But in that she was no doubt wronging him. He was only fulfilling a sacred duty in beginning at once to take care that the person who, from his point of view, was responsible for his brother's death, did not escape the penalty due to him. For to a negro it is unthinkable that any such act should remain unatoned for, a point of view which is thoroughly Hegelian! For him the legal side of an event is always the important one, and a large part of his time is spent in discussing legal cases.\* The most hardened litigant in Europe is but a child compared to the negro, and yet it is not the mere love of litigation that is the latter's motive; it is an unspoilt sense of justice, such as is, on the whole, no longer felt by Europeans. I was getting ready one day to tap an old Pahouin who was

<sup>\* &</sup>quot;No other race on a similar level of culture has developed as strict methods of legal procedure as has the negro. Many of his legal forms remind us strongly of those of mediæval Europe." (Prof. Boas in "The Ethnical Record," March, 1904, p. 107.)

<sup>&</sup>quot;Everywhere in Africa where the life of the people has not been disturbed by outside influences, the people are governed by law. There is law relating to property, to morality, to the protection of life, in fact, in many portions of Africa law is more strictly regarded than in many civilised countries." (Booker Washington: "The Story of the Negro," Vol. I., p. 70.)

suffering badly from abdominal dropsy, when he said to me: "Doctor, see that all the water runs off as soon as possible, so that I can breathe and get about again. My wife has deserted me because my body has got so big, and I must go and press for the return of the money I paid for her at the wedding." On another occasion a child was brought to me in a most miserable condition; its right leg had an open sore along it right up to the hip. "Why didn't you come before?" "Doctor, we couldn't; there was a palaver to finish." A palaver means any sort of quarrel which is brought up for a legal settlement, and the little ones are discussed in the same detail and with the same earnestness as the big ones. A dispute involving a single fowl will keep the village elders employed for a whole afternoon. Every negro is a law expert.

The legal side of life is extremely complicated with them, because the limits of responsibility are, according to our notions, very wide indeed. For a negro's debts the whole of his family, down to the remotest degree of relationship, is responsible. Similarly the penalties are extraordinarily severe. If a man has used another's canoe illegally for a single day, he must pay the third of its value as a fine.

Together with this unspoilt sense of justice goes the fact that the native accepts the punishment as something obvious and needing no defence, even when it is, according to our notions, much too severe. If he did not get punished for an offence, his only conclusion would be that his victims were remarkably foolish. Yet the lightest sentence, if unjust, rouses him to great indignation; he never forgives it, and he recognises the penalty as just only if he is really convicted and

obliged to confess. So long as he can lie with the slightest plausibility, he inveighs against his condemnation with most honourable-seeming indignation, even if he is actually guilty. This is a feature in primitive man which every one who has to do with him must take into account.

That N'Kendju ought to pay some compensation to the family of his companion on the unfortunate fishing expedition is obvious, even though he was only so very indirectly responsible for the other's death. But they must get the case against him settled in orderly fashion in the District Court at Lambarene.

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I am always able to rely on Joseph. True, he can neither read nor write, but in spite of that he never makes a mistake when he has to get a medicine down from the shelf. He remembers the look of the words on the label, and reads this, without knowing the individual letters. His memory is magnificent, and his capacity for languages remarkable. He knows well eight negro dialects, and speaks fairly well both French and English. He is at present a single man, as his wife left him, when he was a cook down on the coast, to go and live with a white man. The purchase price of a new life companion would be about 600 francs (£24), but the money can be paid in instalments. Joseph, however, has no mind to take another wife under these conditions, for he thinks they are an abomination. "If one of us," he said to me, "has not completely paid for his wife, his life is most uncomfortable. His wife does not obey him, and whenever an opportunity offers she taunts him with having no right



FIG. 6.—JOSEPH, THE HOSPITAL ASSISTANT, BANDAGING SORES IN FRONT OF THE HOSPITAL.

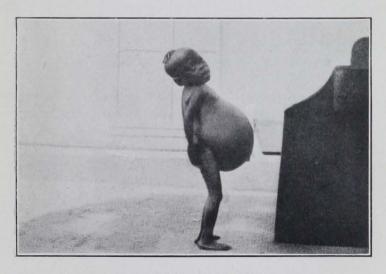


FIG. 7.—NEGRO CHILD WITH ABDOMINAL DROPSY.

to say anything to her, because she has not yet been paid for."

As Joseph does not understand how to save any better than the other natives, I have bestowed on him a money-box in which to save up for the purchase of a wife. Into this goes all his extra pay for sitting up at night or other special services, and all the tips he gets from white patients. How extravagant the "first assistant of the doctor in Lambarene" (as he calls himself) can be, I experienced about this time. He was with me at a store, and while I was buying some nails and screws his eye was caught by a pair of patent leather shoes which, from standing a long time in a Paris shop window, had got sun-dried and rotten, and had then, like many other odds and ends, found their way to Africa. Although they cost nearly as much as the amount of his monthly wages, he meant to buy them, and warning looks from me were useless, as were also a couple of digs in the ribs which I gave him quietly while we were standing at the counter among a crowd of staring negroes. I could not venture openly to dissuade him, as it would have offended the dealer, who was thankful to get rid of the shoes. So at last I pinched him unperceived as hard as I could just above the back of his thigh till he could stand the pain no longer, and the transaction was broken off. In the canoe I gave him a long lecture on his childish taste for extravagance, with the result that the very next day he went to the store again on the quiet and bought the shoes! Quite half of what he earns from me he spends in clothes, shoes, ties, and sugar. He dresses much more elegantly than I do.

All through the last few months the work has been

steadily growing. Our hospital is splendidly situated. Upstream and downstream, from places hundreds of kilometres away on the Ogowe and its tributaries, sick people are brought here, and the fact that those who bring them can be lodged here is a further encouragement to come in great numbers. And there is yet another attraction: the fact that I am always at home, unless—and this has happened only two or three times so far-I have to go to some other mission station to treat a missionary who is ill, or some member of his family. Thus the native who has undertaken the trouble and the expense of the journey here from a distance, is sure of seeing me. That is the great advantage which the independent doctor has over one appointed by the Government. The latter is ordered now here, now there, by the authorities, or has to spend a long time with a military column on the march. "And that you have not got to waste so much time on correspondence, reports, and statistics, as we have to, is also an advantage, the reality of which you have not vet grasped," said an army doctor not long ago, during a short chat with me on his way past.

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The hut for the sleeping sickness victims is now in course of erection on the opposite bank, and costs me much money and time. When I am not myself superintending the labourers whom we have secured for grubbing up the vegetation and building the hut, nothing is done. For whole afternoons I have to neglect the sick to play the part of foreman there.

Sleeping sickness prevails more widely here than I suspected at first. The chief focus of infection is in the

N'Gounje district, the N'Gounje being a tributary of the Ogowe about ninety miles from here, but there are isolated centres round Lambarene and on the lakes behind N'Gômô.

What is the sleeping sickness? How is it spread? It seems to have existed in Equatorial Africa from time immemorial, but it was confined to particular centres, since there was little or no travelling. The native method of trade with the sea coast was for each tribe to convey the goods to the boundary of its territory, and there to hand them over to the traders of the adjoining one. From my window I can see the place where the N'Gounje enters the Ogowe, and so far only might the Galoas living round Lambarene travel. Any one who went beyond this point, further into the interior, was eaten.

When the Europeans came, the natives who served them as boats' crews, or as carriers in their caravans, moved with them from one district to another, and if any of them had the sleeping sickness they took it to fresh places. In the early days it was unknown on the Ogowe, and it was introduced about thirty years ago by carriers from Loango. Whenever it gets into a new district it is terribly destructive, and may carry off a third of the population. In Uganda, for example, it reduced the number of inhabitants in six years from 300,000 to 100,000. An officer told me that he once visited a village on the Upper Ogowe which had two thousand inhabitants. On passing it again two years later he could only count five hundred; the rest had died meanwhile of sleeping sickness. After some time the disease loses its virulence, for reasons that we cannot as yet explain, though it continues to carry off

a regular, if small, number of victims, and then it may begin to rage again as destructively as before.

The first symptom consists of irregular attacks of fever, sometimes light, sometimes severe, and these may come and go for months without the sufferer feeling himself really ill. There are victims who enter the sleep stage straight from this condition of apparent health, but usually severe headaches come during the fever stage. Many a patient have I had come to me crying out: "Oh, doctor! my head, my head! I can't stand it any longer; let me die!" Again, the sleep stage is sometimes preceded by torturing sleeplessness, and there are patients who at this stage get mentally deranged; some become melancholy, others delirious. One of my first patients was a young man who was brought because he wanted to commit suicide.

As a rule, rheumatism sets in with the fever. A white man came to me once from the N'Gômô lake district suffering from sciatica. On careful examination, I saw it was the beginning of the sleeping sickness, and I sent him at once to the Pasteur Institute at Paris, where French sufferers are treated. Often, again, an annoying loss of memory is experienced, and this is not infrequently the first symptom which is noticed by those around them. Sooner or later, however, though it may be two or three years after the first attacks of fever, the sleep sets in. At first it is only an urgent need of sleep; the sufferer falls asleep whenever he sits down and is quiet, or just after meals.

A short time ago a white non-commissioned officer from Mouila, which is six days' journey from here, visited me because, while cleaning his revolver, he had put a bullet through his hand. He stayed at the Catholic mission station, and his black boy accompanied him whenever he came to have his hand dressed, and waited outside. When the N.C.O. was ready to go, there was almost always much shouting and searching for his attendant, till at last, with sleepy looks, the latter emerged from some corner. His master complained that he had already lost him several times because, wherever he happened to be, he was always taking a long nap. I examined his blood and discovered that he had the sleeping sickness.

Towards the finish the sleep becomes sounder and passes at last into coma. Then the sick man lies without either feeling or perception; his natural motions take place without his being conscious of them, and he gets continually thinner. Meanwhile his back and sides get covered with bed-sores; his knees are gradually drawn up to his neck, and he is altogether a horrible sight. Release by death has, however, often to be awaited for a long time, and sometimes there is even a lengthy spell of improved health. Last December I was treating a case which had reached this final stage, and at the end of four weeks the relatives hurried home with him that, at least, he might die in his own village. I myself expected the end to come almost at once, but a few days ago I got the news that he had recovered so far as to eat and speak and sit up, and had only died in April. The immediate cause of death is usually pneumonia.

Knowledge of the real nature of sleeping sickness is one of the latest victories of medicine, and is connected with the names of Ford, Castellani, Bruce, Dutton, Koch, Martin, and Leboeuf. The first description of it was given in 1803 from cases observed among the natives of Sierra Leone, and it was afterwards studied also in negroes who had been taken from Africa to the Antilles and to Martinique. It was only in the 'sixties that extensive observations were begun in Africa itself, and these first led to a closer description of the last phase of the disease, no one even suspecting a preceding stage or that there was any connection between the disease and the long period of feverishness. This was only made possible by the discovery that both these forms of sickness had the same producing cause.

Then in 1901 the English doctors, Ford and Dutton, found, on examining with the microscope the blood of fever patients in Gambia, not the malaria parasites they expected, but small, active creatures which on account of their form they compared to gimlets, and named Trypanosomata, i.e., boring-bodies. Two years later the leaders of the English expedition for the investigation of sleeping sickness in the Uganda district found in the blood of a whole series of patients similar little active creatures. Being acquainted with what Ford and Dutton had published on the subject, they asked whether these were not identical with those found in the fever patients from the Gambia region, and at the same time, on examination of their own fever patients, they found the fever to be due to the same cause as produced the sleeping sickness. Thus it was proved that the "Gambia fever" was only an early stage of sleeping sickness.

The sleeping sickness is most commonly conveyed by the *Glossina palpalis*, a species of tsetse fly which flies only by day. If this fly has once bitten any one with sleeping sickness, it can carry the disease to others for a long time, perhaps for the rest of its life, for the trypanosomes which entered it in the blood it sucked live and increase and pass in its saliva into the blood of any one it bites.

Still closer study of sleeping sickness revealed the fact that it can be also conveyed by mosquitoes, if these insects take their fill of blood from a healthy person immediately after they have bitten any one with sleeping sickness, as they will then have trypanosomes in their saliva. Thus the mosquito army continues by night the work which the glossina is carrying on all day. Poor Africa!\*

In its essential nature sleeping sickness is a chronic inflammation of the meninges and the brain, one, however, which always ends in death, and this ensues because the trypanosomes pass from the blood into the cerebro-spinal fluid. To fight the disease successfully it is necessary to kill them before they have passed from the blood, since it is only in the blood that atoxyl,† one weapon that we at present possess, produces effects which can to any extent be relied on; in the cerebrospinal marrow the trypanosomes are comparatively safe from it. A doctor must, therefore, learn to recognise the disease in the early stage, when it first produces fever. If he can do that, there is a prospect of recovery.

In a district, therefore, where sleeping sickness has to be treated, its diagnosis is a terribly complicated business because the significance of every attack of fever, of

<sup>\*</sup> I must, however, in justice add that the mosquito does not harbour the trypanosomes permanently, and that its saliva is poisonous only for a short time after it has been polluted by the blood of a sleeping sickness victim.

<sup>†</sup> Atoxyl (meta-arsenic anilid) is a compound of arsenic with an aniline product.

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every persistent headache, of every prolonged attack of sleeplessness, and of all rheumatic pains must be gauged with the help of the microscope. Moreover, this examination of the blood is, unfortunately, by no means simple, but takes a great deal of time, for it is only very seldom that these pale, thin parasites, about one eighteen-thousandth  $(\frac{1}{18000})$  of a millimetre long, are to be found in any considerable number in the blood. So far I have only examined one case in which three or four were to be seen together. Even when the disease is certainly present one can, as a rule, examine several drops of blood one after another before discovering a single trypanosome, and to scrutinise each drop properly needs at least ten minutes. I may, therefore, spend an hour over the blood of a suspected victim, examining four or five drops without finding anything, and even then have no right to say there is no disease; there is still a long and tedious testing process which must be applied. This consists in taking ten cubic centimetres of blood from a vein in one of the sufferer's arms, and keeping it revolving centrifugally for an hour according to certain prescribed rules, at the same time pouring off at intervals the outer rings of blood. The trypanosomes are expected to have collected into the last few drops, and these are put under the microscope; but even if there is again a negative result, it is not safe to say that the disease is not present. If there are no trypanosomes to-day, I may find them ten days hence, and if I have discovered some to-day, there may be none in three days' time and for a considerable period after that. A white official, whose blood I had proved to contain trypanosomes, was subsequently kept under observation for weeks, in Libreville, without any being discovered, and it was only in the Sleeping Sickness Institute at Brazzaville that they were a second time proved to be there.

If, then, I wish to treat such patients conscientiously, a couple of them together can tie me for a whole morning to the microscope, while outside there are sitting a score of sick people who want to be seen before dinnertime! There are also surgical patients whose dressings must be renewed; water must be distilled, and medicines prepared; sores must be cleansed, and there are teeth to be drawn! With this continual drive, and the impatience of the waiting sick, I often get so worried and nervous that I hardly know where I am or what I am doing.

Atoxyl is a frightfully dangerous drug. If the solution is left for some time in the light it decomposes, just like salvarsan, and works as a poison, but even if it is prepared faultlessly and is in perfect condition, it may cause blindness by injuring the nerves of sight. Nor does this depend on the size of the dose; small ones are often more dangerous than large ones, and they are never of any use. If one begins with too small a dose, in order to see whether the patient can take the drug, the trypanosomes get inured to it; they become "atoxylproof," as it is called, and then can defy the strongest doses. Every five days my sleeping sick come to me for an injection, and before I begin I always ask in trepidation whether any of them have noticed that their sight is not as good as usual. Happily, I have so far only one case of blinding to record, and that was a man in whom the disease had already reached a very advanced stage. Sleeping sickness now prevails from the east coast of Africa right to the west, and from the

Niger in the north-west to the Zambesi in the southeast. Shall we now conquer it? A systematic campaign against it over this wide district would need many doctors and the cost would be enormous. . . Yet, where death already stalks about as conqueror, the European States provide in most niggardly fashion the means of stopping it, and merely undertake stupid defensive measures which only give it a chance of reaping a fresh harvest in Europe itself.

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After the sleeping sickness it is the treatment of sores and ulcers which takes up most time. They are far more common here than in Europe—one in four of the children in our school has a permanent sore. What is the cause?

Many sores are caused by sandfleas (Rynchoprion penetrans), a species much smaller than the common flea. The female bores into the tenderest part of the toe, preferably under the nail, and grows under the skin to the size of a small lentil. The removal of the insect causes a small wound, and if this gets infected through dirt, there sets in a kind of gangrene, which causes the loss of a joint, or even of a whole toe. Negroes with ten complete toes are almost rarer than those who have one or more mutilated.

It is an interesting fact that the sandflea, which is now a regular plague to Central Africa, is not indigenous there, but was brought over from South America as late as 1872. In ten years from that time it had spread all over the Dark Continent from the Atlantic to the Pacific. In East Africa it is known as the "Jigger." One of the worst species of ants which we have here, the

sangunagenta, is also an importation, having come over in cases of goods brought from South America.

Besides the sores caused by the sandflea we have the so-called crawcraw. These generally occur several together, most commonly on the foot and leg, and are frightfully painful, but the cause of them we do not yet know. The treatment consists in cleaning out the sore with a plug of cotton-wool till it bleeds naturally, when it is washed out with mercuric chloride and filled with boracic powder. It is then bandaged and left to itself for ten days.

Another kind of sore is that of the so-called raspberry disease (frambæsia), which may attack any part of the body. The name was given because it shows itself first in largish pustules, covered with a yellow crust, the removal of which reveals a slightly bleeding surface which looks exactly like a raspberry stuck on the skin. There was brought to me once an infant which had got infected through contact with its mother's breast, and looked exactly as if it had been first painted over with some viscous substance and then stuck all over with raspberries. These pustules may disappear, but for years afterwards surface sores occur in the most varied parts of the body.

This disease, which is common in all tropical countries, is very infectious, and almost all the negroes here have it at some time or other. The old treatment consisted in dabbing the sore with a solution of sulphate of copper (cupri sulphas) and giving the patient every day two grammes of iodide of potassium (potassii iodidum) in water. It has recently been proved that arseno-benzol injected into the veins of the arm effects a speedy and permanent cure; the sores disappear as if by magic.

The worst sores of all are the tropical eating sores (ulcus phagedenicum tropicum), which spread in all directions. Not infrequently the whole leg surface is one single sore, in which the sinews and bones show like white islands. The pain is frightful, and the smell is such that no one can stay near the patient for any length of time. The sufferers are placed in a hut by themselves, and have their food brought to them; there they gradually waste away and die after terrible sufferings. This most horrible of all the different sores is very common on the Ogowe, and merely to disinfect and bandage does no good. The sufferer must be put under an anæsthetic and the sore carefully scraped right down to the sound tissue, during which operation blood flows in streams. The sore is then bathed with a solution of permanganate of potash, but a careful inspection must be made every day so as to detect any new purulent centre that may show itself, as this must at once be scraped out like the others. It is weeks, perhaps months, before the sore is healed, and it will use up half a case of bandages. What a sum it costs us, too, to feed the patient for so long! But what joy when-limping, indeed, for the healed wounds leave the foot permanently deformed, but rejoicing at his freedom from the old pain and stench—he steps into the canoe for the journey home!

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The lepers are another class of sick people who give one much trouble. This disease is caused by a bacillus which is closely allied to that of tuberculosis, and this was discovered in 1871 by a Norwegian doctor, Hansen by name. Isolation, which is always insisted on where

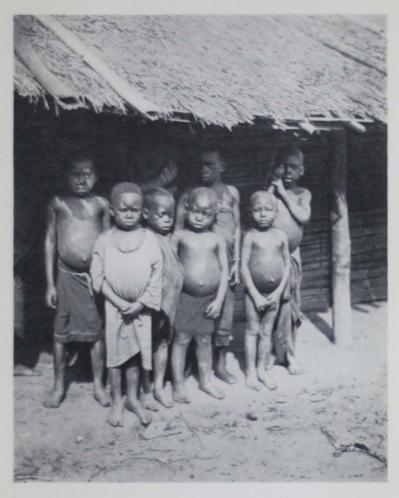


FIG. 8.—PAHOUIN BOYS FROM LAMBARENE.

possible, is not to be thought of here, and I often have four or five lepers among the other sick folk in the hospital. The most remarkable fact about it is that we have to assume that the infection passes from one individual to another, although no one has yet discovered how it does so, or succeeded in producing infection experimentally. The only drug we have at our disposal for fighting this disease is the so-called Chaulmoogra oil (oleum gynocardiæ), which is obtained from the seed of a tree in Further India. It is expensive, and usually comes into the market adulterated. I obtain what I want through a retired missionary, Mr. Delord, a native of French Switzerland, who had a great deal to do with leprosy when he worked in New Caledonia, and can get supplies direct from a reliable source. Following a hint from him I administer the nauseous drug in a mixture of sesame and earth-nut oils (huile d'arachides), which makes it more tolerable for taking. Recently the administration of Chaulmoogra oil by subcutaneous injection has also been recommended.

A real cure of leprosy is beyond our powers, but a great improvement in a patient's health can be effected, and the disease can be reduced to a state of quiescence which lasts so long that it is practically equivalent to a cure. The attempts which have been made in recent years to cure the disease by means of a serum prepared from the bacillus that causes it, and known under the name of Nastin, allow us to hope that some day we shall be able to fight it effectively in this way.

With swamp fever, or tropical malaria, I have, unfortunately, like every other doctor in the tropics, plenty to do. To the natives it is merely natural that

every one of them should from time to time have fever with shivering fits, but children are the worst sufferers. As a result of this fever the spleen, as is well known, swells and becomes hard and painful, but with them it sometimes projects into the body like a hard stone from under the left ribs, not seldom reaching as far as the navel. If I place one of these children on the table to examine him, he instinctively covers the region of the spleen with his arms and hands for fear I should inadvertently touch the painful stone. The negro who has malaria is a poor, broken-down creature who is always tired and constantly plagued with headache, and finds even light work a heavy task. Chronic malaria is known to be always accompanied by anæmia. The drugs available for its treatment are arsenic and quinine, and our cook, our washerman, and our boy each take 7 to 8 grains (half a gram) of the latter twice a week. There is a preparation of arsenic called "Arrhenal," which enormously enhances the effect of the quinine, and I give it freely to white and black alike in subcutaneous injections.

Among the plagues of Africa tropical dysentery must not be forgotten. This disease, also, is caused by a special kind of amœba, which settles in the large intestine and injures the membrane. The pain is dreadful, and day and night alike, without intermission, the sufferer is constantly wanting to empty the bowels, and yet passes nothing but blood. Formerly the treatment of this dysentery, which is very common here, was a tedious process and not really very successful. The drug used was powdered ipecacuanha root, but it could seldom be administered in sufficient quantities to act effectively, because when taken

through the mouth it caused vomiting. For some years, however, use has been made of a preparation of the essential principle contained in this root, under the title of emetin (emetinum hydrochloricum). Six to eight cubic centimetres of a I per cent. solution of this is injected subcutaneously for several days in succession, and this is followed at once by a great improvement and usually by a permanent cure; in fact, the results attained border on the miraculous. There is no need for care about diet; the patient can eat what he likeshippopotamus steak, if he is black; potato salad, if he is white. If a doctor could effect no cures in the tropics beyond what these newly-discovered means of healing, arseno-benzol and emetin, make possible, it would still be worth his while to come out here. At the fact that a great part of the labour entailed upon a doctor in the tropics consists in combating various diseases, each one more loathsome than the last, which have been brought to these children of nature by Europeans, I can here only hint. But what an amount of misery is hidden behind the hint!

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As to operations, one undertakes, naturally, in the forest only such as are urgent and which promise a successful result. The one I have had to perform oftenest is that for hernia, a thing which afflicts the negroes of Central Africa much more than it does white people, though why this should be so we do not know. They also suffer much oftener than white people from strangulated hernia, in which the intestine becomes constricted and blocked, so that it can no longer empty itself. It then becomes enormously inflated by the

gases which form, and this causes terrible pain. Then after several days of torture death takes place, unless the intestine can be got back through the rupture into the abdomen. Our ancestors were well acquainted with this terrible method of dying, but we no longer see it in Europe because every case is operated upon as soon as ever it is recognised. "Let not the sun go down upon your-strangulated hernia," is the maxim continually impressed upon medical students. But in Africa this terrible death is quite common. There are few negroes who have not as boys seen some man rolling in the sand of his hut and howling with agony till death came to release him. So now, the moment a man feels that his rupture is a strangulated onerupture is far rarer among women—he begs his friends to put him in a canoe and bring him to me.

How can I describe my feelings when a poor fellow is brought me in this condition? I am the only person within hundreds of miles who can help him. Because I am here and am supplied by my friends with the necessary means, he can be saved, like those who came before him in the same condition and those who will come after him, while otherwise he would have fallen a victim to the torture. This does not mean merely that I can save his life. We must all die. But that I can save him from days of torture, that is what I feel as my great and ever new privilege. Pain is a more terrible lord of mankind than even death himself.

So, when the poor, moaning creature comes, I lay my hand on his forehead and say to him: "Don't be afraid! In an hour's time you shall be put to sleep, and when you wake you won't feel any more pain." Very soon he is given an injection of omnipon; the doctor's wife is called to the hospital, and, with Joseph's help, makes everything ready for the operation. When that is to begin she administers the anæsthetic, and Joseph, in a long pair of rubber gloves, acts as assistant.

The operation is finished, and in the hardly lighted dormitory I watch for the sick man's awaking. Scarcely has he recovered consciousness when he stares about him and ejaculates again and again: "I've no more pain! I've no more pain!" . . . His hand feels for mine and will not let it go. Then I begin to tell him and the others who are in the room that it is the Lord Jesus who has told the doctor and his wife to come to the Ogowe, and that white people in Europe give them the money to live here and cure the sick negroes. Then I have to answer questions as to who these white people are, where they live, and how they know that the natives suffer so much from sickness. The African sun is shining through the coffee bushes into the dark shed, but we, black and white, sit side by side and feel that we know by experience the meaning of the words: "And all ye are brethren" (Matt. xxiii. 8). Would that my generous friends in Europe could come out here and live through one such hour !

## CHAPTER VI

## LUMBERMEN AND RAFTSMEN IN THE PRIMEVAL FOREST

CAPE LOPEZ, July 25th-29th, 1914.

An abscess, for the opening of which the help of the military doctor at Cape Lopez seemed to be necessary, compelled me about this time to go down to the coast, but we had scarcely got there when it fortunately burst, and the risk of further complications was avoided. My wife and I were kindly entertained at the house of a factory employee called Fourier, whose wife had spent two months that summer at Lambarene, awaiting her confinement at our house. Monsieur Fourier is a grandson of the French philosopher Fourier (1772—1837), in whose social theories I was much interested when a student in Paris. Now one of his great-grandchildren has entered the world under our roof!

I cannot yet move about, so spend the whole day in an armchair on the verandah with my wife, looking out over the sea and inhaling with enjoyment the fresh sea breezes. That there is a breeze at all is a delight to us, for in Lambarene there is never any wind except during the short storms, which are known as tornadoes. This time of leisure I will employ in writing something about the life of the lumbermen and the raftsmen on the Ogowe.

It was only about thirty years ago that attempts were first made to exploit the great forests of West and Equatorial Africa, but the work is not as easy as might be thought. Magnificent timber is there in any quantity, but how fell and transport it? At present the only timber on the Ogowe that has any commercial value is that which is near the river. The most magnificent tree a kilometre from the water is safe from the axe, for what is the good of felling it if it cannot be taken away?

Why not build light railways, then, to convey the logs to the water? That question will be asked only by those who do not know what a forest in Equatorial Africa is like. The ground on which it stands is nothing but a mass of gigantic roots and swamp. To prepare the ground for even 200 or 300 yards of light railway means cutting down the trees, getting rid of their roots, and filling up the swamp; and that would cost more than a hundred tons of the finest timber would fetch at Cape Lopez. It is, therefore, only at the most favourable spots that light railways can be built cheaply enough. In these forests one learns how impotent man is when pitted against Nature!

Work, then, has, as a rule, to be carried on in a primitive way, and this for the further reason, also, that only primitive men can be got for labourers, and not a sufficient number even of them. The introduction of Annamites and Chinese has been talked of, but it is a hopeless proposal. Foreigners are of no use in the African forest, because they cannot endure the heat and the camp life in it, and, moreover, cannot live on the foods produced locally.

The first thing to be done is to choose the right place

for work. In the virgin forest the trees grow in the most capricious fashion, and it pays to fell them only where there is near the water's edge a considerable number of the kind of trees required. These places are generally some distance within the forest, but when the river is high, are usually connected with the latter by some narrow watercourse, or by a pond, which at such times becomes a lake. The natives know well enough where these places are, but they keep the knowledge to themselves, and make a point of misleading any white man who comes into their neighbourhood to look for them. One European told me that the natives of a certain village kept taking from him for two months liberal presents of brandy, tobacco, and cloth while they went out with him every day on the search for such a place, but not a single one was discovered which seemed to promise profitable exploitation. At last, from a conversation which he happened to overhear, he learnt that they purposely took him past all the favourable spots, and then their friendly relations came to a sudden end. Of the timber that stands near enough to the river to be easily transported, nearly the whole has already been felled.

About half the forest area has been put, through concessions, into the hands of big European companies. The rest is free, and any one, white or black, can fell timber there as he pleases. But even in the woodlands covered by the concessions the companies often allow the natives to fell trees as freely as they can in the other parts, on the one condition that they sell the timber to the company itself, and not to other dealers.

The important thing, after all, is not to own woods, but to have timber for sale, and the timber which the

negroes cut down on their own account and then offer to the company works out cheaper than what the latter get through their contract labour. On the other hand, the supply from the free natives is so uncertain that it cannot be relied upon for trade purposes. They may take it into their heads to celebrate a festival, or to have a big fishing expedition just when the demand for timber is greatest, so the companies, while they buy all they can from the natives, also keep their own labourers constantly at work.

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When a suitable spot has been discovered, there come to it either the men of a village who have agreed to exploit it together, or the white man with his labourers, and huts are erected to live in. The great difficulty is food. One is faced with the problem of securing supplies for from sixty to one hundred men for weeks and months together, and that in the middle of the virgin forest. The nearest village and the nearest plantations are perhaps twenty-five miles away, and only to be reached by a weary struggle through jungle and swamp. Unfortunately, too, the staple foods of banana and manioc \* are bulky, and therefore troublesome to transport; moreover, they only keep good for a few days. The great drawback attaching to Equatorial

<sup>\*</sup> Manioc, better known perhaps to English readers as cassava, belongs to the Euphorbiaceæ. The two chief kinds are Manihot utilissima, the bitter, which contains the hydrocyanic acid, and Manihot Aipi, the sweet, which is harmless. The roots are 3 feet long and 6 to 9 inches in diameter, filled with milky juice. The starch as prepared for food is known first as Brazilian arrowroot, and this, when further prepared, as the tapioca of commerce. (Encycl. Brit., s.v.)

Africa is that none of its food products keep long. Bananas and manioc ripen the whole year through, now freely, now sparingly, according to the time of year, but bananas go bad six days after gathering, and manioc bread ten days after it is made. The manioc root by itself is unusable, as there are poisonous species which contain cyanic acid, to get rid of which the roots are soaked for some days in running water. Stanley lost three hundred carriers because they too hastily ate manioc root which had not been washed long enough. When it is taken out of the water it is crushed and rubbed, and undergoes fermentation, and this produces a kind of tough, dark dough, which is moulded into thin sticks and wrapped in leaves for preservation. Europeans find this a very poor food.

Since, then, the regular provision of local foodstuffs is so difficult, these native timber workers have to reconcile themselves to living on rice and preserved foods from Europe. This means mostly cheap tins of sardines, prepared specially for export to the inland regions of Africa, and of these the stores always have a big supply in stock. Variety is secured by means of tinned lobster, tinned asparagus, and Californian fruits. The expensive tinned stuff which the well-to-do European denies himself as too expensive, the negro, when felling timber, eats from necessity!

And shooting? In the real forest shooting is impossible. There is, indeed, wild life in plenty, but how is it to be discovered and pursued in the thick jungle? Good shooting is only to be had where grassland or treeless marshes alternate with the forest, but in such places there is usually no timber to be felled. Thus, paradox though it seems, it is nowhere easier to starve

than amid the luxurious vegetation of the gamehaunted forests of Equatorial Africa!

How the timber-workers manage to get through the day with the tsetse fly, and through the night with the mosquito, it is hard to tell. Often, too, they have to work for days together up to the hips in water. Naturally they all suffer from fever and rheumatism.

The felling of the trees is very troublesome work because of the thickness of the trunks. Moreover, the giants of the forest do not grow up out of the earth round and smooth; they are anchored to the ground by a row of strong, angular projections, which as they leave the stems become the main roots, and act as buttresses. Mother Nature, as though she had studied under the best architects, gives these forest giants the only sort of protection which could be effective against the force of the tornadoes.

In many cases the hewing of the trees at ground level is not to be thought of. The axe can begin its work only at the height of a man's head, or it may even be necessary to erect a scaffold on which the hewers can then stand.

Several men must toil hard for days before the axe can finish its work, and even then the tree does not always fall. It is tangled into a single mass with its neighbours by powerful creepers, and only when these have been cut through does it come, with them, to the ground. Then begins the process of cutting up. It is sawn, or hewn with axes, into pieces from 12 to 15 feet long, until the point is reached at which the diameter is less than 2 feet. The rest is left, and decays, and with it those portions also which are too thick, that is, which

are more than 5 to  $5\frac{1}{2}$  feet in diameter, as such huge pieces are too awkward to handle.

The felling and cutting up of the trees takes place as a rule in the dry season, that is, between June and October. The next work is to clear the track by which these mighty logs, weighing sometimes as much as three tons, are to be rolled to the nearest piece of water. Then begins a contest with the roots which have been left in the ground and the huge tree tops which are lying upon it, and not infrequently the mighty trunk itself has in its fall embedded itself three feet in the soil. But in time the track is got fairly ready, the portions which run through swamp being filled up with wood. The pieces—spoken of as "billets" (French, billes)—are rolled on to the track, thirty men, with rhythmical shouts, pushing and shoving at each one and turning it slowly over and over on its axis. If a piece is very large, or not quite round, human strength may not suffice, and the movement is effected by means of jacks. Then a hillock in the way may present a difficulty to be overcome; or, again, the woodpacking in the swamp may give way! The thirty men in an afternoon's work seldom move one of these

"billets" more than eighty to ninety yards.

And time presses! All the timber must be got to the pond to be ready for the high water at the end of November and the beginning of December, since it is only just then that the pond is in connection with the rivers. Any timber that misses this connection remains in the forest, and is reduced to such a condition by the parasitic wood-insects—especially by a species of Bostrichid beetle—that it is not worth buying. At best it can be saved when the spring high water comes,



FIG. 9 .- STUMP OF A MAHOGANY TREE.

The tree was so thick at its base that it could only be cut through at a height of 13 feet from the ground. The woodcutters stood on a staging erected around the trunk.

but that is often not high enough to connect all the ponds, and if the timber has to stay there till the next autumn flood it is assuredly lost.

Occasionally, once perhaps in ten years, even the autumn flood does not rise high enough, and then the season's work is wholly lost on many timber-working sites. This happened last autumn (1913), and many middle-sized and small trading firms are reported to have been nearly ruined. The male populations of many villages, too, after labouring for months, did not earn enough to cover their debts for the rice and tinned foods that they had had to buy.

At last the timber is in the river, moored to the jungle on the bank with ropes of creepers, and the white trader comes to buy what the negroes of the different villages have to offer him. And here caution is necessary. Is the timber really of the kind desired, or have the negroes smuggled in among it pieces of some other tree with a similar bark and similar veining which stood at the water's edge? Is it all freshly cut, or are there some last year's logs, or even some of the year before last, which have had their ends sawn off to make them look new? The inventive skill of the negroes with a view to cheating in timber borders on the incredible! Let the newcomer be on his guard! For example: In Libreville Bay a young English merchant was to buy for his firm some ebony, a heavy wood, which comes into the market in short logs. The Englishman reported with satisfaction that he had secured some huge pieces of magnificent ebony, but no sooner had his first purchase reached England than he received a telegram saying that what he had bought and despatched for ebony was nothing of the kind; that his expensive stuff was worthless, and he himself responsible for the loss involved! The fact was that the negroes had sold him some hard wood which they had allowed to lie for several months in the black swamp. There it had soaked in the colour so thoroughly that at the ends and to a certain depth all over it seemed to be the finest ebony; the inner part, however, was of a reddish colour. The inexperienced white man had neglected to test his bargain by sawing one of the logs in two!

The dealer, then, measures and purchases the timber. The measuring is a difficult job, as he has to jump about on the logs, which turn over in the water with his weight. Then he pays up half the purchase money, keeping the rest till the timber, on which the trade mark of his firm is now cut, has been brought safely down to the coast. Sometimes, however, it happens that natives sell the timber four or five times over, pocketing the money each time and then disappearing into the forest till the transaction has been forgotten, or till the white man is tired of spending time and money in going after the swindlers, by whom, indeed, he is not likely to be indemnified, seeing that, long before he finds them, they will have spent the money in tobacco and other things.

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Next comes the building of the rafts, or floats, for which neither rope nor wire is needed, as the supple creepers of the forest are cheaper and better than either, and can be had as thin as a finger or as thick as one's arm. From 60 to 100 of the 12 to 15 feet trunks are arranged one behind the other in two rows and bound

together, so that the raft is from 25 to 30 feet broad, and about 130 feet long, and its weight may be as much as 200 tons. Long planks are also bound upon it on a regular plan, and these give it the necessary strength and firmness. Next huts of bamboo and raffia leaves are built upon it, and a special platform of logs is coated with clay to serve as a fireplace for cooking. Powerful steering-oars are fixed in front and behind in strong forks, so that the course of the raft can be to some extent guided, and as each of these needs at least six men to work it, there must be a crew of between fifteen and twenty men. Then when all the bananas and manioc sticks that can be procured have been placed upon it, the voyage begins.

The crew must know well the whereabouts of the continually shifting sandbanks, in order to avoid them, and these, covered as they are with brown water, are very hard to detect at any considerable distance. If the raft strikes one, there is no way of getting it afloat again but by releasing from it one by one the logs which have got fixed in the sand, and putting them back again afterwards. Sometimes the raft has to be taken entirely to pieces and re-made, a proceeding which under those conditions takes a week and involves the loss of a certain number of the logs, which the stream carries away during the work. Time, too, is precious, for provisions are usually not too abundant, and the further they get down the Ogowe, the harder it is to get more. For a few wretched bananas the people of the villages on the lower Ogowe exact from the hungry raftsmen a franc, or a franc and a half; or they may refuse to supply anything at all.

It happens not infrequently during the voyage that

the crew sell some of the good logs in the raft to other negroes, and replace them with less valuable ones of exactly the same sizes, putting the firm's trade mark upon these with deceptive accuracy. These inferior pieces that have been thrown away in the forest have been lying in dozens ever since the last high water, either on the sandbanks or in the little bays on the river banks, and there are said to be villages which keep a big store of them of all possible sizes. The good timber which has been taken from the raft is later made unrecognisable, and is sold over again to a white man.

Other reasons, too, the white man has for anxiety about his raft on its way down. In so many days the ship which is to take the timber will be at Cape Lopez, and the rafts have till then to come in: the crew have been promised a handsome bonus if they arrive in good time. But if the tomtom is sounded in a river-bank village as they pass, they may succumb to the temptation to moor the raft and join in the festivities—for two, four, six days! Meanwhile the ship waits at Cape Lopez and the trader must pay for the delay a fine which turns his hoped-for profitable stroke of business into a serious loss.

The 200 miles (350 kilometres) from Lambarene to Cape Lopez usually take such a raft fourteen days. The, at first, comparatively quick rate of progress slows down towards the end, for about fifty miles from the river mouth the tide makes itself felt in the river. For this reason, too, the river water can no longer be drunk, and as there are no springs within reach, the canoe which is attached to the raft is filled in good time with fresh water. From now on progress can be made only with the ebb tide, and when the flood tide sets in



FIG. 10,-RAFT OF OKOUME WOOD AND MAHOGANY BEING FLOATED DOWN THE OGOWE RIVER.

the raft is moored to the bank with a creeper as thick as a man's arm, so that it may not be carried back upstream.

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The next step is to get the raft into a narrow, winding side stream about twenty miles long which enters the sea through the southern shore of Cape Lopez Bay. If it is swept into any of the other arms which have their outlet in the middle of the bay it is lost, for the strong current of the rivers, which, after being dammed up by the flood tide, rushes down at five miles an hour, carries it right out to sea. Through the southern arm, however, it comes out into a strip of shallow water which runs along the coast, and over this it can be navigated with long poles to Cape Lopez. Here again, if the raft gets a few yards too far from the shore so that the punting-poles cannot touch bottom, it can no longer be guided and gets swept out to sea, and within these last ten miles a mighty contest often develops between the crew and the elements. If a land breeze gets up there is hardly anything to be done. If, indeed, the position of the raft is noticed at Cape Lopez, they try to send a boat to it with an anchor and a cable, and that may save it if the waves are not so strong as to break it up. But if that happens, there is only one thing for the crew to do, if they do not wish to be lost also, and that is to leave the raft, in the canoe—and at the right moment. For once out at the mouth of the bay, no canoe can make its way back to Cape Lopez in the teeth of the ebb tide and the regular current of the river. The flat, keelless vessels which are used in the river are useless in a contest with the waves.

In this way more than one raft has been lost, and more than one crew has disappeared in the waves. One of my white patients once found himself on one of these unlucky rafts. They were driven out to sea after dark by a breeze which got up quite unexpectedly, and the force of the waves made it hopeless to think of escaping in the canoe. The raft was beginning to break up when a motor longboat came to the rescue, some one on the shore having noticed the lantern which the despairing men had waved to and fro as they drove past, and sent the rescue boat, which happened fortunately to have its steam up, in pursuit of the moving light.

Brought safely to Cape Lopez, the raft is taken to pieces and the logs go into "the park." At the most sheltered part of the bay two rows of tree-trunks are bound together so as to form a sort of double chain. This is effected by driving into the trunks iron wedges which end in rings through which strong wire ropes are drawn. This double chain of logs protects the calm water from the movement of the sea, and behind this "breakwater," or boom, float as many logs as there is room for. The logs are further fastened together by other wire ropes, running through iron rings which have been driven into them, and every two or three hours a watchman goes round to see whether the boom is all right, whether the rings are still holding, and whether the continual rubbing in the rings and the frequent bending with the up and down movement of the water has not made the wire ropes worn and unsafe. But often the utmost foresight and care is useless. A rope in the breakwater gives way during the night without any one noticing it, and when in the morning the owner of the logs comes to inspect them, they have journeyed out

to sea, never to return. Some months ago an English firm lost in this way, in a single night, timber worth something like £1,600 (40,000 francs). But if a tornado comes there is no controlling anything. The huge trunks in the park plunge about like dolphins bewitched, and finally make an elegant jump over the boom into the free water beyond.

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Thus every day that the raft lies in the bay brings a risk, and anxiously is the ship awaited which is to take the logs away. No sooner has it arrived than the motor boats tow raft after raft to its landward side, those that are to be shipped having been prepared first by having wire ropes run through a line of rings at each end. Negroes jump about on the tossing raft, and knock the two rings out of the log that is to be shipped next, so that it floats free of the raft, and then they slip round it the chain with which it is to be hoisted on board. This needs a tremendous amount of skill, for if a labourer falls into the water from the wet and slippery surface of a rolling log he will probably get his legs crushed between these two or three-ton masses of wood which are continually dashing against one another.

From the verandah I can watch through my glasses some negroes occupied with this work, which is made much harder for them by the delightful breeze I am enjoying, and I know that if a tornado comes, or even a really stiff breeze, the rafts which are lying along the ship's side will certainly be lost.

The losses in timber, then, between the places where it is felled and its successful hoisting on board ship, are tremendous, and the lagoons near the mouth of the Ogowe are veritable timber graveyards. Hundreds and hundreds of gigantic tree trunks stick out of the mud there, the majority being trees which could not be got away at the right time and were left to rot, till a bigger flood than usual carried them out to the river. When they got to the bay, wind and tide carried them into the lagoons, from which they will never emerge. At this present minute I can count, with the help of my glasses, some forty trunks which are tossing about in the bay, to remain the plaything of ebb and flood and wind till they find a grave either in the lagoons or in the ocean.

As soon as the raft has been safely delivered the crew make haste to get back up the river, either in their canoe or in a steamer, in order that they may not starve in Cape Lopez, for all the fresh provisions in the port town have to be brought some 125 miles down the river from the interior, since nothing of the kind can be grown in the sands of the coast or the marshes of the river mouth. When they have got back home, and have been paid off by the purchaser of the timber, quantities of tobacco, brandy, and all sorts of goods are bought by them at the latter's store. As rich men, according to native notions, they return to their villages, but in a few weeks, or even earlier, the whole of the money has run through their fingers, and they look out for a new place at which to begin their hard work over again.

The export of timber from Cape Lopez is increasing steadily; at the present time (1914) it amounts to about 150,000 tons a year. The chief sorts dealt in are mahogany, which the natives call *ombega*, and okoume



FIG. 11.-PREMISES OF A TIMBER MERCHANT AT LAMBARENE.

(Aucoumea klaineana), the so-called false mahogany. The latter is softer than real mahogany, and is used mostly for making cigar-boxes, but it is employed also for furniture, and has a great future before it. Many species of it are almost more beautiful than the real mahogany.

If the timber is left too long in the water it is attacked by the boring molluse, the teredo navalis (French taret). This is a small worm-like creature, really a kind of mussel, which eats a passage for itself straight to the centre of the log. For this reason any timber that has to wait a long time for the ship is rolled on to the shore, and advantage is usually taken of this to hew off the sap wood, so that the trunk becomes a square beam.

But besides the okoume and mahogany there are many other valuable kinds of wood on the Ogowe. I will mention the *ekewasengo*, or rosewood (*bois de rose*), and coralwood (*bois de corail*), both of which have a beautiful red colour, and the ironwood, which is so hard that in the sawmill at N'Gômô there are cog-wheels in use that are made of it. There grows here also a wood which, when planed, looks like white *moiré* silk.

The finest woods, however, are not exported, because they are not yet known in European markets, and are, therefore, not in demand. When they do become known and sought after, the Ogowe timber trade will become even more important than it is to-day. The reputation of being the best wood expert on the Ogowe belongs to Mr. Haug, one of the missionaries at N'Gômô, who has a valuable collection of specimens of every kind of it. At first I could not understand how it is that everybody

here, even people who have nothing to do with the timber trade, is so interested in the different kinds of wood. In the course of time, however, and thanks to continual intercourse with timber merchants, I have myself become, as my wife says, a timber fanatic.

## CHAPTER VII

## SOCIAL PROBLEMS IN THE FOREST

WRITTEN WHILE ON THE RIVER, July 30th-Aug. 2nd, 1914.

I AM again fit for work, and the skipper of a small steamer, which belongs to a trading firm at N'Djôli, has been kind enough to take us with him to Lambarene, but our progress is only slow, as we have a heavy cargo of kerosene. This comes in square tins, each holding four gallons (eighteen litres), straight from the U.S.A. to the Ogowe, and the natives are beginning to use it freely.

I am profiting by the long voyage to arrange and clear my ideas as to the social problems which, to my astonishment, I have come across in the forest. We talk freely in Europe about colonisation, and the spread of civilisation in the colonies, but without making clear to ourselves what these words mean.

But are there really social problems in the forest? Yes; one has only to listen for ten minutes to conversation between any two white men, and one will certainly hear them touch on the most difficult of them all, viz., the labour problem. People imagine in Europe that as many labourers as are wanted can always be found among the savages, and secured for very small wages. The real fact is the very opposite. Labourers are nowhere more difficult to find than

among primitive races, and nowhere are they paid so well in proportion to the work they do in return. This comes from their laziness, people say; but is the negro really so lazy? Must we go a little deeper into the problem.

Any one who has seen the population of a native village at work, when they have to clear a piece of virgin forest in order to make a new plantation, knows that they are able to work enthusiastically, and with all their might, for weeks together. This hardest of all work, I may say in passing, is forced upon every village triennially. The banana exhausts the soil with extraordinary rapidity, so that every three years they must lay out a new plantation, manured by the ashes of the jungle, which they cut down and burn. For my part I can no longer talk ingenuously of the laziness of the negro after seeing fifteen of them spend some thirty-six hours in almost uninterrupted rowing in order to bring up the river to me a white man who was seriously ill.

The negro, then, under certain circumstances works well, but—only so long as circumstances require it. The child of nature—here is the answer to the puzzle—is always a casual worker.

In return for very little work nature supplies the native with nearly everything that he requires for his support in his village. The forest gives him wood, bamboos, raffia leaves, and bast for the building of a hut to shelter him from sun and rain. He has only to plant some bananas and manioc, to do a little fishing and shooting, in order to have by him all that he really needs, without having to hire himself out as a labourer and to earn regular wages. If he does take a situation,



FIG. 12.—A LITTLE PLANTATION OF BANANAS ON THE MARGIN OF THE UNTOUCHED FOREST.

it is because he needs money for some particular object; he wishes to buy a wife, or his wife, or his wives, want some fine dress material, or sugar, or tobacco; he himself wants a new axe, or hankers after rum or cheap spirits, or would like to wear boots and a suit of khaki.

There are, then, various needs differing in number with the individual, but all lying outside the regular struggle for existence, which bring the child of nature to hire himself out for work. If he has no definite object in view for which to earn money he stays in his village. If he is at work anywhere and finds that he has earned enough to supply his heart's desires, he has no reason for troubling himself any further, and he returns to his village, where he can always find board and lodging.

The negro, then, is not idle, but he is a free man; hence he is always a casual worker, with whose labour no regular industry can be carried on. This is what the missionary finds to be the case on the mission station and in his own house on a small scale, and the planter or merchant on a large one. When my cook has accumulated money enough to let him gratify the wishes of his wife and his mother-in-law, he goes off without any consideration of whether we still want his services or not. The plantation owner is left in the lurch by his labourers just at the critical time when he must wage war on the insects that damage the cocoa plant. Just when there comes from Europe message after message about timber, the timber merchant cannot find a soul to go and fell it, because the village happens at the moment to be out on a fishing expedition, or is laying out a new banana plot. So we are all filled with righteous indignation at the lazy negroes, though the real reason why we cannot get them is that they have not yet learnt to understand what we really mean by continuous work.

There is, therefore, a serious conflict between the needs of trade and the fact that the child of nature is a free man. The wealth of the country cannot be exploited because the native has so slight an interest in the process. How train him to work? How compel him?

"Create in him as many needs as possible; only so can the utmost possible be got out of him," say the State and commerce alike. The former imposes on him involuntary needs in the shape of taxes. With us every native above fourteen pays a poll tax of five francs a year, and it is proposed to double it. If that is done, a man with two wives and seven children will contribute £4 (100 francs) a year, and have to provide a corresponding amount either of labour or of products of the soil. The trader encourages voluntary needs in him by offering him wares of all sorts, useful ones such as clothing material or tools, unnecessary ones such as tobacco and toilet articles, and harmful ones like alcohol. The useful ones would never be enough to produce an amount of labour worth mentioning. Useless trifles and rum are almost more effective. Just consider what sort of things are offered for sale in the forest! Not long ago I got the negro who manages for a white man a little shop close to a small lake, miles away from civilisation, to show me all his stock. Behind the counter stood conspicuous the beautiful white painted cask of cheap spirits. Next to it stood the boxes of tobacco leaves and the tins of kerosene. Further on was a collection of knives, axes, saws, nails, screws, sewing machines, flat-irons, string for making fishing-nets, plates, glasses, enamelled dishes of all sizes.

lamps, rice, tinned stuff of every variety, salt, sugar, blankets, dress material, muslin for mosquitoes, Gillette safety razors (!), collars and ties in rich variety, blouses and chemises trimmed with lace, corsets, elegant shoes, openwork stockings, gramophones, concertinas, and fancy articles of all sorts. Among the last named was a plate, resting on a stand, of which there were several dozen. "What is that?" I asked. The negro moved a lever in the bottom part and a little musical box at once began to play. "This is my best paying article," said he. "All the women in the neighbourhood want one of these plates, and plague their husbands till they have earned enough to buy one!"

It is true that taxes and new needs can make a negro work more than he used to, but they do not train him to work, or only to a small extent. They make him anxious for money and for enjoyment, but not reliable or conscientious. If he does take service anywhere, he only thinks how he can get most money for least work, and he works only so long as his employer is near. Just recently I engaged some day labourers to build a new hut for the hospital, but when I came in the evening to see the work, nothing had been done. On the third or fourth day I got angry, but one of the blacks-and one who was by no means the worst of them-said to me: "Doctor, don't shout at us so! It is your own fault. Stay here and we shall work, but if you are in the hospital with the sick folk, we are alone and do nothing." Now I have adopted a plan, and when I engage any day labourers I arrange to have two or three hours free. During this time I make them work till their dark skins glisten with sweat, and so I manage to get a certain amount done.

Increasing their needs does effect something, but not much. The child of nature becomes a steady worker only so far as he ceases to be free and becomes unfree, and this can be brought about in several ways. The first step to be taken is to prevent him for a certain time from returning to his village. Planters and forestowners never, on principle, hire labourers from the neighbourhood, but engage for a year young men from strange tribes who live at a distance, and then bring them where they are wanted by water. The agreements are drawn up by the Government, and, like many other things in French colonial administration, are calculated to effect their object with due regard to humanity. At the end of each week the labourer is paid half, but only half, of his wages; the rest is put by and is handed over to him at the end of the year when the white man has to send him home. He is thus prevented from spending his money as quickly as he earns it, and from going home with empty hands. Most of them hire themselves out in this way to get money enough to buy a wife.

And what is the result? They have to hold out for the year, because they cannot get back to their village, but very few of them are really useful workers. Many get homesick. Others cannot put up with the strange diet, for, as no fresh provisions are to be had, they must as a rule live chiefly on rice. Most of them fall victims to the taste for rum, and ulcers and diseases spread rapidly among them, living, as they do, a kind of barrack life in overcrowded huts. In spite of all precautions they mostly get through their pay as soon as the contract time is up, and return home as poor as they went away.

The negro is worth something only so long as he is in his village and under the moral control of intercourse with his family and other relatives; away from these surroundings he easily goes to the bad, both morally and physically. Colonies of negro labourers away from their families are, in fact, centres of demoralisation, and yet such colonies are required for trade and for the cultivation of the soil, both of which would be impossible without them.

The tragic element in this question is that the interests of civilisation and of colonisation do not coincide, but are largely antagonistic to each other. The former would be promoted best by the natives being left in their villages and there trained to various industries, to lay out plantations, to grow a little coffee or cocoa for themselves or even for sale, to build themselves houses of timber or brick instead of huts of bamboo, and so to live a steady and worthy life. Colonisation, however, demands that as much of the population as possible shall be made available in every possible way for utilising to the utmost the natural wealth of the country. Its watchword is " Production," so that the capital invested in the colonies may pay its interest, and that the motherland may get her needs supplied through her connection with them. For the unsuspected incompatibilities which show themselves here, no individual is responsible; they arise out of the circumstances themselves, and the lower the level of the natives and the thinner the population, the harder is the problem. In Zululand, for example, agriculture and cattle raising are possible, and the

natives develop naturally into a peasantry attached to the land and practising home industries, while, at the same time, the population is so thick that the labour requirements of European trade can also be met; there, then, the problems of the condition of the natives and the promotion of civilisation among them are far less difficult than in the colonies where the country is mostly virgin forest and the population is at a really primitive stage of culture. Yet even there, too, it may come about that the economic progress aimed at by colonisation is secured at the expense of civilisation and the native standard of life.

What, then, is the real educational value of the much discussed compulsory labour as enforced by the State? What is meant by labour compulsion?

It means that every native who has not some permanent industry of his own must, by order of the State, spend so many days in the year in the service of either a trader or a planter. On the Ogowe we have no labour compulsion. The French colonial administration tries, on principle, to get on without any such measure. In German Africa, where labour compulsion was enforced in a humane but effective manner, the results were, according to some critics, good; according to others, bad. I myself hold labour compulsion to be not wrong in principle, but impossible to carry through in practice. The average colony cannot get on without having it on a small scale. If I were an official and a planter came to tell me that his labourers had left him just as the cocoa crop had to be gathered, and that the men in the neighbouring villages refused to come to his help at this critical time, I should think I had a right, and that it was even my duty, to secure him the labour of these men so long as he needed it for the saving of his crop, on payment, of course, of the wages usual in the locality. But the enforcement of general labour compulsion is complicated by the fact that under it men have practically always to leave their village and their family and go to work many miles away. Who provides their food on the journey? What becomes of them if they fall ill? Who will guarantee that the white man does not call on them for their labour just when their village has to set about its own planting, or when it is the best time for fishing expeditions? Will he not, perhaps, keep them longer than he is entitled to, on the plea that they have done no work? Will he treat them properly? There is always the danger that compulsory labour may become, secretly but really, a kind of slavery.

Connected to some extent with the question of compulsory labour is that of the management of colonies by the method of "concessions." What is meant by a "concession"? A company with plenty of capital has a large stretch of territory assigned to it, which it is to manage for so many years, and no other trader may establish himself there. Competition being thus excluded, the natives become very seriously dependent on the company and its employees. Even if the sovereign rights of the State are reserved to it on paper, the trading company does in practice come to exercise many of them more or less completely, especially if the taxes which are owed to the State can be paid to the company in-the form of natural products or of labour, to be handed on by it to the State in the form of cash. The question has been much discussed at times, because the system of large concessions led

in the Belgian Congo to great abuses, and I do not ignore its dangers; it can, if taken advantage of wrongly, lead to the native belonging to the trader or planter as a creature that has no rights. But it has also its good points. The upper course of the Ogowe has been granted as a concession to the "Company of the Upper Ogowe," and I have discussed the question thoroughly with employees of this company who were with me for considerable periods for medical treatment, thus getting to know the arguments of both sides. When a company has not to fear competition, it canas the "Company of the Upper Ogowe" does-banish rum and cheap spirits from its district, and provide for sale in its stores only things that are worth buying, without any rubbish. Directed by men of intelligence and wide views, it can exert much educational influence, and since the land belongs wholly to it for a long period, it has a real interest in seeing that it is managed properly; and it is little tempted to exhaust the soil

On the whole, then, the general principle of labour compulsion, in the sense that the State puts the natives at the disposal of private individuals, is to be rejected. The State has to apply it to a quite sufficient extent in the work it has to exact from the natives for generally necessary public objects. It must have at its disposal boatmen and carriers for its officials when they travel; it must have men in its service for the construction and maintenance of roads, and under certain circumstances it must exact contributions of foodstuffs for the support of its troops and its staff generally.

There are two things which are terribly difficult in Africa: one is to provide any place which has a large



TIC TO NECDO VILLACE AT LAMBADEN

population with fresh provisions, and the other is to maintain roads through the forest; and both of these become proportionately more difficult where the population is thin and the distances great. I speak from experience. What trouble I have to secure food for my two assistants and for those of the sick in my hospital who live too far away to get what is necessary sent to them regularly from home! There come times when I have to resort to compulsory measures, and say that every one who comes for treatment must bring a contribution of so many bananas or manioc sticks. This leads to endless wranglings with the patients, who say either that they do not know about the order, or that they have not enough for themselves. Of course, I do treat the serious cases and those who come from long distances, even if they have not brought the modest tribute demanded, but, however strongly I insist on this contribution being made, it does sometimes happen that I have to send sick people away because I no longer have the means of feeding them. The head of the mission station, who has to provide food for the 100 or 150 children in the school, is sometimes in the same position, and the school has to be closed, and the children sent home. because we cannot feed them.

The labour levies and the food requisitions naturally affect chiefly the villages which lie nearest the white settlements. However considerate and just the action of the Government is, these natives feel it, nevertheless, as a burden, and endeavour to migrate to more distant parts, where they will be left in peace. Hence, in the neighbourhoods where there are only primitive tribes, and these not in great numbers, there comes into

existence round the settlements of the whites a zone which is uninhabited. Then the compulsion has to be applied in another way. The natives are forbidden to move their villages, and those at a distance are ordered to come near the white settlements, or to move to specified points on the caravan routes or on the river. This must be done, but it is tragic that it should be necessary, and the authorities have to take care that no change is enforced beyond what is really needful.

In the Cameroons the forest has been pierced with a network of roads, which are kept in splendid condition and are the admiration of all visitors from other colonies. But has not this great achievement been brought about at the cost of the native population and their vital interests? One is forced to ask questions when things have gone so far that women are impressed for the maintenance of the roads. It is impossible to acquiesce when, as is often the case, the colony itself prospers, while the native population diminishes year by year. Then the present is living at the expense of the future, and the obvious fatal result is only a question of time. The maintenance of the native population must be the first object of any sound colonial policy.

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Close on the problem of labour comes that of the educated native. Taken by itself, a thorough school education is, in my opinion, by no means necessary for these primitive peoples. The beginning of civilisation with them is not knowledge, but industry and agriculture, through which alone can be secured the economic conditions of higher civilisation. But both Government and trade require natives with extensive

knowledge whom they can employ in administration and in the stores. The schools, therefore, must set their aims higher than is natural, and produce people who understand complicated figures and can write the white man's language perfectly. Many a native has such ability that the results of this attempt are, so far as intellectual knowledge goes, astounding. Not long ago there came to me a native Government clerk, just at the time that there was also a missionary staying with me. When the clerk went away, the missionary and I said to each other: "Well, we could hardly compete with him in essay writing!" His chief gives him documents of the most difficult sort to draw up and most complicated statistics to work out, and he does it all faultlessly.

But what becomes of these people? They have been uprooted from their villages, just like those who go off to work for strangers. They live at the store, continually exposed to the dangers which haunt every native so closely, the temptations to defraud and to drink. They earn good wages, indeed, but as they have to buy all their necessaries at high prices, and are a prey to the black man's innate love of spending, they often find themselves in financial difficulties and even in want. They do not now belong to the ordinary negroes, nor do they belong to the whites either; they are a tertium quid between the two. Quite recently the above-mentioned Government clerk said to the wife of a missionary: "We negro intellectuals are in a very uncomfortable position. The women in these parts are too uneducated to be good wives for us. They should import wives for us from the higher tribes in Madagascar." This loss of class position in an upwards direction is the misfortune which comes to many of the best of the natives.

Emancipation from the savage state produced by the accumulation of wealth plays no part here, though it may do so in other colonies. It is a still more dangerous method than that of intellectual education.

Social problems are also produced by imports from Europe. Formerly the negroes practised a number of small industries; they carved good household utensils out of wood; they manufactured excellent cord out of bark fibre and similar substances; they got salt from the sea. But these and other primitive industries have been destroyed by the goods which European trade has introduced into the forest. The cheap enamelled ware has driven out the solid, home-made wooden bucket, and round every negro village there are heaps of such things rusting in the grass. Many minor crafts which they once practised are now almost forgotten; it is now only the old women who know how to make cord out of bark, and sewing cotton out of the fibres of the pineapple leaves. Even the art of canoe-making is dying out. Thus native industries are going backwards instead of forwards, just when the rise of a solid industrial class would be the first and surest step towards civilisation.

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One first gets a clear idea of the real meaning of the social danger produced by the importation of cheap spirits, when one reads how much rum per head of the population comes every year to the port towns, and when one has seen in the villages how the children drink with their elders. Here on the Ogowe officials

and traders, missionaries and chiefs are all unanimous that the importation of cheap spirits should be stopped. Why, then, is it not stopped? Because it is so profitable to the revenue. The import duty on rum produces one of the biggest items in the receipts of the colony, and if it ceased there would be a deficit. The financial position of the African colonies is well known to be anything but brilliant, and the duty on spirits has a second advantage, that it can be increased every year without diminishing by a litre the quantity consumed. The position here, as in other colonies, is that the Government says: "Abolish cheap spirits? Willingly to-day rather than to-morrow; but tell us first what we can find to cover the deficit which that will cause in the budget." And the strongest opponents of alcohol have not been able to make any practicable proposal. When shall we find some way out of this idiotic dilemma? The one hope is that some day a governor will come who will put the future of the colony above the financial worries of the present, and have the courage to banish rum at the price of having to carry on for some years with a deficit \*

It is often asserted that alcoholism would prevail among the natives even if there were no importation of spirits. This is mere talk. Of alcoholic drinks produced in the country itself palm wine is the only one which has to be considered in the forest, and that is no great danger. It is simply the sap of the palm tree allowed to ferment, but the boring of the trees and the taking the necessary vessels to them needs a good deal of labour, for the work has to be done on the quiet at a

<sup>\*</sup> In the year 1919 the Governor actually ventured to try this policy to the great joy of the whole colony.

distance from the village, the boring of the trees being expressly forbidden. Moreover, palm wine will not keep. Its existence makes it possible, therefore, for the people of a village to get drunk several times a year, on the occasions of their festivals, but it is not a continual danger like the cheap spirits sold in the stores. Fresh palm wine tastes, when it is fermenting, very like the must of grape wine, and by itself it is not any more intoxicating than the latter; but the natives are accustomed to put various species of bark into it, and then it can produce a terrible kind of drunkenness.

Polygamy is another difficult social problem. We Europeans come here with our ideal of monogamy, and missionaries contend with all their resources against polygamy, in some places even urging the Government to suppress it by law. On the other hand, all of us here must allow that it is closely bound up with the existing economic and social conditions. Where the population lives in bamboo huts, and society is not so organised that a woman can earn her own living, there is no room for the unmarried woman, and if all women are to be married, polygamy is a necessary condition. Moreover, there are in the forest neither cows nor nanny goats, so that a mother must suckle her child for a long time if it is to be reared. Polygamy safeguards the claims of the child, for after its birth the woman has the right, and the duty, of living only for her child; she is now no longer a wife, but only a mother, and she often spends the greater part of this time with her parents. At the end of three years comes the weaning, which is marked by a festival, and then she returns to her husband's hut to be a wife once more. But this living for her child is not to be thought of unless the man has another wife.

or other wives, to make a home for him and look after his banana plots.

Here is another point for consideration. Among these nature-peoples there are no widows unprovided for and no neglected orphans. The nearest male relative inherits the dead man's widow, and must maintain her and her children. She enters into enjoyment of all the rights of his other wives, even though she can later, with his consent, take another husband.

To agitate, therefore, against polygamy among primitive peoples, is to undermine the whole structure of their society. Have we the right to do this if we are not also in a position to give them a new social order which suits their own circumstances? Were the agitation successful, would not polygamy still continue to exist, with the single difference that the later wives would be illegitimate ones? These questions naturally cause missionaries much anxious thought.

But, as a matter of fact, the more developed the economic condition of a people becomes, the easier becomes the contest with polygamy. When men begin to live in permanent houses, and to practise the rearing of cattle, and agriculture, it disappears of itself because it is no longer demanded by their circumstances, and is no longer even consistent with them. Among the Israelites, as their civilisation advanced, monogamy peacefully drove out polygamy. During the prophetic period they were both practised side by side; the teaching of Jesus does not even hint at the existence of the latter.

Certainly mission teaching should put forward monogamy as the ideal and as what Christianity demands, but it would be a mistake for the State to make it compulsory. It is also a mistake, so far as I can judge, to identify the fight against immorality with that against polygamy. Under this system the relation of the wives to each other is usually good. A negress does not, in fact, like being the only wife, because then she has the care of the banana plot, which always falls to the wives, all to herself, and this is a laborious duty, as the plots are usually at a distance from the village in some well-concealed part of the forest.

What I have seen in my hospital of life with many wives has not shown me, at any rate, the ugly side of the system. An elderly chief once came as a patient and brought two young wives with him. When his condition began to cause anxiety, a third appeared who was considerably older than the first two; this was his first wife. From the day of her arrival she sat continually on his bed, held his head in her lap, and gave him what he wanted to drink. The two young ones behaved respectfully to her, took orders from her, and looked after the cooking.

One can have the experience in this land of a fourteenyear-old boy announcing himself as a paterfamilias. It comes about in the following way. He has inherited from some deceased relative a wife with children, and though the woman has contracted a marriage with another man, that does not touch his rights over the children nor his duty towards them. If they are boys, he will some day have to buy wives for them; if they are girls, he will get the customary purchase price from those who wish to marry them.

Should one declaim against the custom of wifepurchase, or tolerate it? If it is a case of a young woman being promised, without being herself consulted, to the man who bids most for her, it is obviously right to protest. If it merely means that in accordance with local custom the man who is courting a girl must, if she is willing to marry him, pay to the family a sum mutually agreed upon, there is no more reason for objecting than there is in the matter of the dowry, customary in Europe. Whether the man, if the marriage comes off, pays money to the family or receives money from it, is in principle the same thing; in either case there is a definite money transaction which has its origin in the social views of the period. What has to be insisted on, both among ourselves and among "natives," is that the money transaction must remain subordinate, and not so influence the personal choice that either the wife is bought, as in Africa, or the husband, as in Europe. What we have to do, then, is not to fight against the custom of wife-purchase, but to educate the natives up to seeing that they must not give the girl to the highest bidder, but to the suitor who can make her happy, and whom she is herself inclined to take. As a rule, indeed, the negro girls are not so wanting in independence as to let themselves be sold to any one who offers. Love, it is true, does not play the same part in marriage here as with us, for the child of nature knows nothing of the romantic, and marriages are usually decided on in the family council; they do, however, as a rule, turn out happily.

Most girls are married when they are fifteen, even those in the girls' schools. Those in our mission school are mostly already engaged to some husband, and marry as soon as they leave school. They can even be promised to a husband before they are born, as I learnt through a case of most unprincipled wife-purchase, which took place at Samkita, and was related to me by a missionary. A man owed one of his neighbours £16 (400 fr.), but, instead of repaying it, he bought a wife and married her with the usual ceremonies. While they were at the wedding feast, the creditor made his appearance, and overwhelmed the bridegroom with abuse for having bought a wife instead of paying his debt. A palaver began which ended in an agreement that the debtor should give his creditor the first girl born of the marriage for a wife, on which the latter joined the guests and took his part in the festivities. Sixteen years later he came as a wooer, and so the debt was paid!

My opinion is, and I have formed it after conversation with all the best and most experienced of the white men in this district, that we should accept, but try to improve and refine, the rights and customs which we find in existence, and make no alterations which are not

absolutely necessary.

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A word in conclusion about the relations between the whites and the blacks. What must be the general character of the intercourse between them? Am I to treat the black man as my equal or as my inferior? I must show him that I can respect the dignity of human personality in every one, and this attitude in me he must be able to see for himself; but the essential thing is that there shall be a real feeling of brotherliness. How far this is to find complete expression in the sayings and doings of daily life must be settled by circumstances. The negro is a child, and with children nothing can be

done without the use of authority. We must, therefore, so arrange the circumstances of daily life that my natural authority can find expression. With regard to the negroes, then, I have coined the formula: "I am your brother, it is true, but your elder brother."

The combination of friendliness with authority is therefore the great secret of successful intercourse. One of our missionaries, Mr. Robert, left the staff some years ago to live among the negroes as their brother absolutely. He built himself a small house near a village between Lambarene and N'Gômô, and wished to be recognised as a member of the village. From that day his life became a misery. With his abandonment of the social interval between white and black he lost all his influence; his word was no longer taken as the "white man's word," but he had to argue every point with them as if he were merely their equal.

When, before coming to Africa, I heard missionaries and traders say again and again that one must be very careful out here to maintain this authoritative position of the white man, it seemed to me to be a hard and unnatural position to take up, as it does to every one in Europe who reads or hears the same. Now I have come to see that the deepest sympathy and kindness can be combined with this insistence on certain external forms, and indeed are only possible by means of them. One of our unmarried missionaries at N'Gômô—the story belongs to a period some years back-allowed his cook to be very free in his behaviour towards him. One day the steamer put in with the Governor on board, and the missionary went to pay his respects to the high official. He was standing on deck in an elegant suit of white among a group of officials and military men,

when a negro, with his cap on his head and a pipe in his mouth, pushed himself into the group and said to him: "Well, what are we to have for supper tonight?" The cook wanted to show on what good terms he stood with his master!

The prevention of unsuitable freedom is, however, only the external and technical part, so to say, of the problem of authority. A white man can only have real authority if the native respects him. No one must imagine that the child of nature looks up to us merely because we know more, or can do more, than he can. This superiority is so obvious to him that it ceases to be taken into account. It is by no means the case that the white man is to the negro an imposing person because he possesses railways and steamers, can fly in the air, or travel under water. "White people are clever and can do anything they want to," says Joseph. The negro is not in a position to estimate what these technical conquests of nature mean as proofs of mental and spiritual superiority, but on one point he has an unerring intuition, and that is on the question whether any particular white man is a real, moral personality or not. If the native feels that he is this, moral authority is possible; if not, it is simply impossible to create it. The child of nature, not having been artificialised and spoilt as we have been, has only elementary standards of judgment, and he measures us by the most elementary of them all, the moral standard. Where he finds goodness, justice, and genuineness of character, real worth and dignity, that is, behind the external dignity given by social circumstances, he bows and acknowledges his master; where he does not find them he remains really defiant in spite of all appearance of submission, and says to himself: "This white is no more of a man than I am, for he is not a better one than I am."

I am not thinking merely of the fact that many unsuitable, and not a few quite unworthy men, go out into the colonies of all nations. I wish to emphasise a further fact that even the morally best and the idealists find it difficult out here to be what they wish to be. We all get exhausted in the terrible contest between the European worker who bears the responsibility and is always in a hurry, and the child of nature who does not know what responsibility is and is never in a hurry. The Government official has to record at the end of the year so much work done by the native in building and in road-maintenance, in service as carrier or boatman, and so much money paid in taxes; the trader and the planter are expected by their companies to provide so much profit for the capital invested in the enterprise. But in all this they are for ever dependent on men who cannot share the responsibility that weighs on them, who only give just so much return of labour as the others can force out of them, and who, if there is the slightest failure in superintendence, do exactly as they like without any regard for the loss that may be caused to their employers. In this daily and hourly contest with the child of nature every white man is continually in danger of gradual moral ruin.

My wife and I were once very much delighted with a newly-arrived trader, because in the conversations we had with him he was always insisting on kindness towards the natives, and would not allow the slightest ill-treatment of them by his foremen. The next spring. 134

however, he had the following experience. Lying in a pond some sixty miles from here he had a large quantity of mahogany, but he was summoned to Lambarene to clear off some urgent correspondence just as the water began to rise. He ordered his foremen and labourers to be sure to use the two or three days of high water to get all the timber, if possible, into the river. When the water had fallen he went back to the place and found that nothing whatever had been done! They had smoked, and drunk, and danced; the timber which had already lain too long in the pond was almost completely ruined, and he was responsible to his company for the loss. His men had been thoughtless and indifferent because they did not fear him enough. This experience changed him entirely, and now he laughs at those who think it is possible to do anything with the natives without employing relentless severity.

Not long ago the termites, or white ants, got into a box which stood on our verandah. I emptied the box and broke it up, and gave the pieces to the negro who had been helping me. "Look," I said to him, "the ants have got into it; you mustn't put the wood with the rest of the firewood or the ants will get into the framework of the hospital building. Go down to the river and throw it into the water. Do you understand?" "Yes, yes, you need not worry." It was late in the day, and being too tired to go down the hill again, I was inclined to break my general rule and trust a black—one who was in fact on the whole intelligent and handy. But about ten o'clock I felt so uneasy that I took the lantern and went down to the hospital. There was the wood with the ants in it lying with the rest of the firewood. To save himself the trouble of going

the twenty yards down to the river the negro had endangered all my buildings!

The greater the responsibility that rests on a white man, the greater the danger of his becoming hard towards the natives. We on a mission staff are too easily inclined to become self-righteous with regard to the other whites. We have not got to obtain such and such results from the natives by the end of the year, as officials and traders have, and therefore this exhausting contest is not so hard a one for us as for them. I no longer venture to judge my fellows after learning something of the soul of the white man who is in business from those who lay as patients under my roof, and whose talk has led me to suspect that those who now speak savagely about the natives may have come out to Africa full of idealism, but in the daily contest have become weary and hopeless, losing little by little what they once possessed of spirituality.

That it is so hard to keep oneself really humane, and so to be a standard-bearer of civilisation, that is the tragic element in the problem of the relations between white and coloured men in Equatorial Africa.