

Anal. p. 509.

©

FIRST FOOTSTEPS

IN

E A S T A F R I C A ;

OR,

AN EXPLORATION OF HARAR.

BY

RICHARD F. BURTON,

BOMBAY ARMY,

AUTHOR OF "PERSONAL NARRATIVE OF A PILGRIMAGE TO EL-MEDINAH AND MECCAH."

© LONDON:

LONGMAN, BROWN, GREEN, AND LONGMANS.

1856.

formed of lines traced in the sand, and bits of dry wood or camel's earth acting pieces, they spend hour after hour, every looker-on vociferating his opinion, and catching at the men, till apparently the two players are those least interested in the game. Or, to drive off sleep, they sit whistling to their flocks, or they perform upon the Forimo, a reed pipe generally made at Harar, which has a plaintive sound uncommonly pleasing.* In the evening, the kraal again resounds with lowing and bleating: the camel's milk is all drunk, the cow's and goat's reserved for butter and ghee, which the women prepare; the numbers are once more counted, and the animals are carefully penned up for the night. This simple life is varied by an occasional birth and marriage, dance and foray, disease and murder. Their maladies are few and simple †; death generally comes by the

* It is used by the northern people, the Abyssinians, Gallas, Adail, Eosa and Gudabirsi; the southern Somal ignore it.

† The most dangerous disease is small-pox, which history traces to Eastern Abyssinia, where it still becomes at times a violent epidemic, sweeping off its thousands. The patient, if a man of note, is placed upon the sand, and fed with rice or millet bread till he recovers or dies. The chicken-pox kills many infants; they are treated by bathing in the fresh blood of a sheep, covered with the skin, and exposed to the sun. Smoke

spear, and the Bedouin is naturally long-lived. I have seen Macrobian hale and strong, preserving

and glare, dirt and flies, cold winds and naked extremities, cause ophthalmia, especially in the hills; this disease rarely blinds any save the citizens, and no remedy is known. Dysentery is cured by rice and sour milk, patients also drink clarified cows' butter; and in bad cases the stomach is cauterized, fire and disease, according to the Somali, never coexisting. Hemorrhoids, when dry, are reduced by a stick used as a bougie and allowed to remain in loco all night. Sometimes the part affected is cupped with a horn and knife, or a leech performs excision. The diet is camels' or goats' flesh and milk; clarified butter and Bussorah dates—rice and mutton are carefully avoided. For a certain local disease, they use senna or colocynth, anoint the body with sulphur boiled in ghee, and expose it to the sun, or they leave the patient all night in the dew;—abstinence and perspiration generally effect a cure. For the minor form, the afflicted drink the melted fat of a sheep's tail. Consumption is a family complaint, and therefore considered incurable; to use the Somali expression, they address the patient with "Allah, have mercy upon thee!" not with "Allah cure thee!"

There are leeches who have secret simples for curing wounds. Generally the blood is squeezed out, the place is washed with water, the lips are sewn up and a dressing of astringent leaves is applied. They have splints for fractures, and they can reduce dislocations. A medical friend at Aden partially dislocated his knee, which half-a-dozen of the faculty insisted upon treating as a sprain. Of all his tortures none was more severe than that inflicted by my Somali visitors. They would look at him, distinguish the complaint, ask him how long he had been invalided, and hearing the reply—four months—would break into exclamations of wonder. "In our country," they cried,

their powers and faculties in spite of eighty and ninety years.

“when a man falls, two pull his body and two his legs, then they tie sticks round it, give him plenty of camel’s milk, and he is well in a month;” a speech which made friend S. groan in spirit.

Firing and clarified butter are the farrier’s panaceas. Camels are cured by sheep’s head broth, asses by chopping one ear, mules by cutting off the tail, and horses by ghee or a drench of melted fat.

in these Fiumaras we saw frequent traces of the Edler-game, deer and hog. At 1 P.M. our camels and mules were watered at wells in a broad wady called Jannah-Gaban or the Little Garden; its course, I was told, lies northwards through the Harawwah Valley to the Odlā and Waruf, two depressions in the Wayma country near Tajurrah. About half an hour afterwards we arrived at a deserted sheepfold distant six miles from our last station. After unloading we repaired to a neighbouring well, and found the water so hard that it raised lumps like nettle stings in the bather's skin. The only remedy for the evil is an unguent of oil or butter, a precaution which should never be neglected by the African traveller. At first the sensation of grease annoys, after a few days it is forgotten, and at last the "pat of butter" is expected as pleasantly as the pipe or the cup of coffee. It prevents the skin from chaps and sores, obviates the evil effects of heat, cold, and wet, and neutralises the Proteus-like malaria poison. The Somal never fail to anoint themselves when they can afford ghee, and the Bedouin is at the summit of his bliss, when sitting in the blazing sun, or,—heat acts upon these people as upon serpents,—with his back opposite

a roaring fire, he is being smeared, rubbed, and kneaded by a companion.

My guides, fearing lions and hyenas, would pass the night inside a foul sheepfold: I was not without difficulty persuaded to join them. At eight next morning we set out through an uninteresting thorn-bush towards one of those Têtes or isolated hills which form admirable bench-marks in the Somali country. "Koralay," a term corresponding with our Saddle-back, exactly describes its shape:ommel and crupper, in the shape of two huge granite boulders, were all complete, and between them was a depression for a seat. As day advanced the temperature changed from 50° to a maximum of 121°. After marching about five miles, we halted in a broad watercourse called Gallajab, the "Plentiful Water": there we bathed, and dined on an excellent camel which had broken its leg by falling from a bank.

Resuming our march at 5 P.M., we travelled over ascending ground which must be most fertile after rain: formerly it belonged to the Girhi, and the Gudabirsi boasted loudly of their conquest. After an hour's march we reached the base of Koralay, upon whose lower slopes appeared a pair

NARRATIVE
OF AN
EXPEDITION TO THE ZAMBESI
AND ITS TRIBUTARIES;
AND OF THE
DISCOVERY OF THE LAKES SHIBWA, AND NYASSA.
1858—1864.

BY DAVID AND CHARLES LIVINGSTONE.



With Map and Illustrations.

NEW YORK:
HARPER & BROTHERS, PUBLISHERS,
FRANKLIN SQUARE.
1866.

on them by their being the object of the wheedling and coaxing of eager merchants, a feeling to which even the love of gain is subordinate.

The native medical profession is reasonably well represented. In addition to the regular practitioners, who are a really useful class, and know something of their profession, and the nature and power of certain medicines, there are others who devote their talents to some specialty. The elephant doctor prepares a medicine which is considered indispensable to the hunters when attacking that noble and sagacious beast; no hunter is willing to venture out before investing in this precious nostrum. The crocodile doctor sells a charm which is believed to possess the singular virtue of protecting its owner from crocodiles. Unwittingly we offended the crocodile school of medicine while at Tette by shooting one of these huge reptiles as it lay basking in the sun on a sand-bank; the doctors came to the Makololo in wrath, clamoring to know why the white man had shot their crocodile.

A shark's hook was baited one evening with a dog, of which the crocodile is said to be particularly fond; but the doctors removed the bait, on the principle that the more crocodiles the more demand for medicine, or perhaps because they preferred to eat the dog themselves. Many of the natives of this quarter are known, as in the South Seas, to eat the dog without paying any attention to its feeding. The dice doctor or diviner is an important member of the community, being consulted by Portuguese and natives alike. Part of his business is that of a detective, it being his duty to discover thieves. When goods are stolen, he goes and looks at the place, casts his dice, and waits a few days, and then, for a consideration, tells who is the thief: he is gen-

erally correct, for he trusts not to his dice alone; he has confidential agents all over the village, by whose inquiries and information he is enabled to detect the culprit. Since the introduction of muskets, gun doctors have sprung up, and they sell the medicine which professes to make good marksmen; others are rain doctors, etc., etc. The various schools deal in little charms, which are hung round the purchaser's neck to avert evil: some of them contain the medicine, others increase its power.

Indigo, about three or four feet high, grows in great luxuriance in the streets of Tette, and so does the senna plant. The leaves are undistinguishable from those imported in England. We set the Makololo to collect specimens, but the natives objected to their doing so, though they themselves never make use of them. A small amount of first-rate cotton is cultivated by the native population for the manufacture of a coarse cloth. In former times the Portuguese collected it at a cheap rate, and made use of it instead of the calico now imported, to exchange for the Manica-gold dust. A neighboring tribe raises the sugar-cane, and makes a little sugar; but they use most primitive wooden rollers, and having no skill in mixing lime with the extracted juice, the product is of course of very inferior quality. Plenty of magnetic iron ore is found near Tette, and coal also to any amount, a single cliff-seam measuring twenty-five feet in thickness. It was found to burn well in the steamer on the first trial. The ash showed a large quantity of shaly refuse; but, suspecting that this was from the coal near the surface having been exposed to the weather for ages, we drove a shaft of some thirty feet, and the mineral was found to improve the farther we went in. Gold is washed for in the beds of rivers, within a couple of days of Tette. The

people of the country, who were miserably poor and hungry. The women were gathering wild fruits in the woods. A young man, having consented for two yards of cotton cloth to show us a short path to the cataract, led us up a steep hill to a village perched on the edge of one of its precipices; a thunder-storm coming on at the time, the head man invited us to take shelter in a hut until it had passed. Our guide, having informed him of what he knew and conceived to be our object, was favored in return with a long reply in well-sounding blank verse; at the end of every line, the guide, who listened with deep attention, responded with a grunt, which soon became so ludicrous that our men burst into a loud laugh. Neither the poet nor the responsive guide took the slightest notice of their rudeness, but kept on as energetically as ever to the end. The speech, or more probably our bad manners, made some impression on our guide, for he declined, although offered double pay, to go any farther.

We brought cotton-seed to Africa, in ignorance that the cotton already introduced was equal, if not superior, to the common American, and offered it to any of the Portuguese and natives who chose to cultivate it; but, though some tried this source of wealth, it was evident that their ideas could not soar beyond black ivory, as they call slaves, elephant's tusks, and a little gold dust.

A great deal of fever comes in with March and April; in March, if considerable intervals take place between the rainy days, and in April-always, for then large surfaces of mud and decaying vegetation are exposed to the hot sun. In general an attack does not continue long, but it pulls one down quickly, though when the fever is checked the strength is as quickly restored. It had long been observed that those

who were stationed for any length of time in one spot, and lived sedentary lives, suffered more from fever than others who moved about, and had both mind and body occupied; but we could not all go in the small vessel when she made her trips, during which the change of place and scenery proved so conducive to health; and some of us were obliged to remain in charge of the expedition's property, making occasional branch trips to examine objects of interest in the vicinity. Whatever may be the cause of the fever, we observed that all were often affected at the same time, as if from malaria. This was particularly the case during a north wind: it was at first commonly believed that a daily dose of quinine would prevent the attack. For a number of months, all our men, except two, took quinine regularly every morning. The fever sometimes attacked the believers in quinine, while the unbelievers in its prophylactic powers escaped. Whether we took it daily, or omitted it altogether for months, made no difference; the fever was impartial, and seized us on the days of quinine as regularly and as severely as when it remained undisturbed in the medicine-chest, and we finally abandoned the use of it as a prophylactic altogether. The best preventive against fever is plenty of interesting work to do, and abundance of wholesome food to eat. To a man well housed and clothed, who enjoys these advantages, the fever at Tette will not prove a more formidable enemy than a common cold; but let one of these be wanting—let him be indolent, or guilty of excesses in eating or drinking, or have poor, scanty fare, and the fever will probably become a more serious matter. It is of a milder type at Tette than at Quillimane or on the low sea-coast; and, as in this part of Africa one is as liable to fever as to colds in England, it would be advisable for

strangers always to hasten from the coast to the higher lands, in order that when the seizure does take place, it may be of the mildest type. This having been pointed out by Dr. Kirk, the Portuguese authorities afterward took the hint, and sent the next detachment of soldiers at once up to Tette. It consisted of eighty men, and, in spite of the irregularities committed, most of them being of the class termed "incorrigibles," in three years only ten died, and but five of fever. Although quinine was not found to be a preventive, except possibly in the way of acting as a tonic, and rendering the system more able to resist the influence of malaria, it was found invaluable in the cure of the complaint, as soon as pains in the back, sore bones, headache, yawning, quick and sometimes intermittent pulse, noticeable pulsations of the jugulars, with suffused eyes, hot skin, and foul tongue, began.

Very curious are the effects of African fever on certain minds. Cheerfulness vanishes, and the whole mental horizon is overcast with black clouds of gloom and sadness.

* A remedy composed of from six to eight grains of resin of jalap, the same of rhubarb, and three each of calomel and quinine, made up into four pills, with the pure of cardamoms, usually relieved all the symptoms in five or six hours. Four pills are a full dose for a man—one will suffice for a woman. They received from our men the name of "rousters," from their efficacy in rousing up even those most prostrated. When their operation is delayed, a desert-spoonful of Epsom salts should be given. Quinine after or during the operation of the pills, in large doses every two or three hours, until deafness or cinchonism ensued, completed the cure. The only cases in which we found ourselves completely helpless were those in which obstinate vomiting ensued. We had received from Viscount Torrington a handsome supply of "Warburgh's fever drops," a medicine much esteemed in India; and, in consideration of his lordship's kindness in furnishing the drug at a considerable expense, as well as from a desire to find out a remedy that might be relied on for this formidable disease, we gave it as fair a trial as was in our power. In the earlier stage it caused warmth, but did not cure. One old man seemed cured, but died a day or two afterward. We regret that we can not recommend it for Africa, though we know of its high repute in India.

The liveliest joke can not provoke even the semblance of a smile. The countenance is grave, the eyes suffused, and the few utterances are made in the piping voice of a wailing infant. An irritable temper is often the first symptom of approaching fever. At such times a man feels very much like a fool, if he does not act like one. Nothing is right, nothing pleases the fever-stricken victim. He is peevish, prone to find fault and to contradict, and think himself insulted, and is exactly what an Irish naval surgeon before a court-martial defined a drunken man to be: "a man unfit for society." If a party were all soaked full of malaria at once, the life of the leader of the expedition would be made a burden to him. One might come with lengthened visage, and urge as a good reason for his despair, if farther progress were attempted, that "he had broken the photograph of his wife;" another, "that his proper position was unjustly withheld because special search was not directed toward 'the ten lost tribes.'" It is dangerous to rally such a one, for the irate companion may quote Scripture, and point to their habitat "beyond the rivers of Ethiopia." When a man begins to feel that every thing is meant to his prejudice, he either takes a dose of "rousers," or writes to the newspapers, according to the amount of sense with which nature has endowed him.

• Finding that it was impossible to take our steamer of only ten-horse power through Kebrabasa, and convinced that, in order to force a passage when the river was in flood, much greater power was required, due information was forwarded to her majesty's government, and application made for a more suitable vessel. Our attention was in the mean time turned to the exploration of the River Shire, a northern tributary of the Zambesi, which joins it about a hundred

ward close by Mount Chiradzuru, among the relatives of Chibisa, and thence by the pass Zedi down to the Shire. And it was well that they got to the ship when they did, for our excellent quartermaster, John Walker, who had been left in charge, had been very ill of fever all the time of their absence, while those who had been roughing it for twenty-two days on the hills, and sleeping every night, except one, in the open air, came back well and hearty. Rowe, his companion, who had charge of the medicine, had not given him any, because he did not know what his illness was. One can scarcely mistake the fever if he attends to the symptoms already enumerated, or remembers that almost every complaint in this country is a form of fever, or is modified by the malaria. Walker's being a very severe case, a large dose of calomel was at once administered. This sometimes relieves when other remedies fail, but the risk of salivation must be run. When 20 grains are taken it may cause an abundant flow of bile, and a cure be the result. This is mentioned not as a course to be followed except when other remedies fail, or when jaundice supervenes. We have seen a case of this kind cured by a large dose of calomel, when a blister put on the pit of the stomach to allay vomiting brought out serum as black as porter, as if the blood had been impregnated with bile. These hints are given, though we believe, as we have before stated, that no Mission or Expedition ought to enter the country without a skillful surgeon as an essential part of its staff.

Quartermaster Walker soon recovered, though, from the long continuance of the fever, his system was very much more shaken than it would have been had the medicine been administered at once. The Kroomen had, while we were away, cut a good supply of wood for steaming, and we soon proceeded down the river.

not indebted to frequent ablutions. An old man told us that he remembered to have washed once in his life, but it was so long since that he had forgotten how it felt. "Why do you wash?" asked Chinsunse's women of the Makololo; "our men never do."

On the Upper Shire Valley, a man, after favoring us with some queer geographical remarks, followed us for several days. The Makololo became very much annoyed with him, for he proclaimed in every village we entered, "These people have wandered; they do not know where they are going." In vain did they scold and order him away. As soon as we started, he appeared again in the line of march, with his little bag over his shoulder, containing all his worldly gear, and as ready with his uncalled-for remarks as before. Every effort failed to drive him away, until at length the happy expedient was hit on of threatening to take him down to the river and wash him; he at once made off, and we saw him no more. Much skin-disease is seen among the Manganja. Many had ulcers on their limbs; indeed, an indolent almost incurable ulcer is the worst complaint we saw. Some men appeared as if they had blotches of whitewash all over them, and some were afflicted with the leprosy of the Cape. Many fowls, even, have their feet deformed by a peculiar thickening of the skin. We noticed also some men marked with small-pox, and asked the chief, Mongazi, if he knew whether it had come to them from the coast or from the interior. Being, as usual, amiably tipsy and anxious to pay us a compliment, he graciously replied he did not know, but thought it must have come to them from the English.

The superstitious ordeal by drinking the poisonous muave obtains credit here; and when a person is suspected of crime,

...had probably seen two hundred summers. Dr. Kirk
...that the Meebe is peculiar, in being allied to a species
...only in the West-Indies. The Motakiri, sometimes
...Mafuta, yields a hard fat, and an oil which is exported
...Mambane. It is said that two ancient Batoka travel-
...down as far as the Loangwa, and finding the Macfa-
...(*fig*, or *styphus*) in fruit, carried the seed all the way
...the great Falls, in order to plant them. Two of these
...are still to be seen there, the only specimens of the kind
...region.

...had made a near approach to the custom of
...nations, and had permanent grave-yards, either
...sides of hills, thus rendered sacred, or under large old
...; they reverence the tombs of their ancestors, and
...the largest elephants' tusks as monuments at the head
...grave, or entirely inclose it with the choicest ivory.
...the other tribes throw the dead body into the river
...by crocodiles, or, sewing it up in a mat, place
...the branch of a Baobab, or cast it in some lonely gloomy
...by dense tropical vegetation, where it af-
...to the foul hyenas; but the Batoka reverently
...their dead, and regard the spot henceforth as sacred.
...deal by the poison of the muave is resorted to by the
...as well as by the other tribes; but a cook is often
...to stand proxy for the supposed witch. Near the con-
...of the Kafue, the Mambo, or chief, with some of his
...came to our sleeping-place with a present; their
...heads were smeared with white flour, and an unusual se-
...marked their demeanor. Shortly before our arrival
...had been accused of witchcraft; conscious of innocence,
...accepted the ordeal, and undertook to drink the poison-
...muave. For this purpose they made a journey to the sa-

ered hill of Nchomokela, on which repose the bodies of their ancestors; and, after a solemn appeal to the unseen spirits to attest the innocence of their children, they swallowed the muawe, vomited, and were therefore declared not guilty. It is evident that they believe that the soul has a continued existence, and that the spirits of the departed know what those they have left behind them are doing, and are pleased or not, according as their deeds are good or evil: this belief is universal. The owner of a large canoe refused to sell it because it belonged to the spirit of his father, who helped him when he killed the hippopotamus. Another, when the bargain for his canoe was nearly completed, seeing a large serpent on a branch of the tree overhead, refused to complete the sale, alleging that this was the spirit of his father come to protest against it.

Some of the Batoka chiefs must have been men of considerable enterprise; the land of one, in the western part of this country, was protected by the Zambesi on the S., and on the N. and E. lay an impassable reedy marsh, filled with water all the year round, leaving only his western border open to invasion; he conceived the idea of digging a broad and deep canal, nearly a mile in length, from the reedy marsh to the Zambesi, and, having actually carried the scheme into execution, he formed a large island, on which his cattle grazed in safety, and his corn ripened from year to year secure from all marauders.

Another chief, who died a number of years ago, believed that he had discovered a remedy for tsetse-bitten cattle; his son Moyara showed us a plant, which was new to our botanist, and likewise told us how the medicine was prepared; "the bark of the root, and, what might please our homœopathic friends, a dozen of the tsetse, are dried, and ground together

into a fine powder. This mixture is administered internally; and the cattle are fumigated by burning under them the rest of the plant collected. The treatment must be continued for weeks whenever the symptoms of poison appear. This medicine, he frankly admitted, would not cure all the bitten cattle. "For," said he, "cattle, and men too, die in spite of medicine; but should a herd by accident stray into a tsetse district and be bitten, by this medicine of my father, Kampakampa, some of them could be saved, while without it all would inevitably die." He stipulated that we were not to show the medicine to other people, and if ever we needed it in this region we must employ him; but if we were far off we might make it ourselves; and when we saw it cure the cattle, think of him, and send him a present.

Our men made it known every where that we wished the tribes to live in peace, and would use our influence to induce Sakeletu to prevent the Batoka of Moshobotwane and the Makololo under-chiefs making forays into their country: they had already suffered severely, and their remonstrances with their countryman, Moshobotwane, evoked only the answer, "The Makololo have given me a spear; why should I not use it?" He indeed it was, who, being remarkably swift of foot, first guided the Makololo in their conquest of the country. In the character of peace-makers, therefore, we experienced abundant hospitality; and from the Kafue to the Falls, none of our party were allowed to suffer hunger. The natives sent to our sleeping-places generous presents of the finest white meal, and fat capons to give it a relish, great pots of beer to comfort our hearts, together with pumpkins, beans, and tobacco, so that we "should sleep neither hungry nor thirsty."

In traveling from the Kafue to the Zungwe we frequently

know what they say about us. The remarks are often not quite complimentary, and resemble closely what certain white travelers say about the blacks.

We made our camp in the afternoon abreast of the large island called Mparira, opposite the mouth of the Chobe. Francolins, quails, and Guinea-fowls, as well as larger game, were abundant. The Makololo head man, Mókempa, brought us a liberal present; and, in the usual way, which is considered politeness, regretted he had no milk, as his cows were all dry. We got some honey here from the very small stingless bee, called by the Batoka moandi, and by others the kokomat-sane. This honey is slightly acid, and has an aromatic flavor. The bees are easily known from their habit of buzzing about the eyes, and tickling the skin by sucking it as common flies do. The hive has a tube of wax like a quill for its entrance, and is usually in the hollows of trees.

Mokempa feared that the tribe was breaking up, and lamented the condition into which they had fallen in consequence of Sekeletu's leprosy; he did not know what was to become of them. He sent two canoes to take us up to Setasheke; his best canoe had taken ivory up to the chief, to purchase goods of some native traders from Benguela. Above the Falls the paddlers always stand in the canoes, using long paddles ten feet in length, and changing from side to side without losing the stroke.

Mochokotsa, a messenger from Sekeletu, met us on the 17th with another request for the doctor to take ivory and purchase a horse. He again declined to interfere. None were to come up to Sekeletu but the doctor; and all the men who had had small-pox at Tette three years ago were to go back to Moshobotwane, and he would sprinkle medicine over them to drive away the infection, and prevent it spreading in the

tribe. Mochokōtsa was told to say to Sekeletu that the disease was known of old to white men, and we even knew the medicine to prevent it; and, were there any danger now, we should be the first to warn him of it. Why did not he go himself to have Moshobotane sprinkle medicine to drive away his leprosy? We were not afraid of his disease, nor of the fever that had killed the teachers and many Makololo at Linyanti. As this attempt at quarantine was evidently the suggestion of native doctors to increase their own importance, we added that we had no food, and would hunt next day for game, and the day after; and, should we be still ordered purification by their medicine, we should then return to our own country.

The message was not all of our dictation; our companions interlarded it with their own indignant protests, and said some strong things in the Tette dialect about these "doctor things" keeping them back from seeing their father; when, to their surprise, Mochokotsa told them he knew every word they were saying, as he was of the tribe Bazizulu, and defied them to deceive him by any dialect, either of the Mashona on the east, or of the Mambari on the west. Mochokotsa then repeated our message twice, to be sure that he had it every word, and went back again. These chiefs' messengers have most retentive memories; they carry messages of considerable length great distances, and deliver them almost word for word. Two or three usually go together, and when on the way the message is rehearsed every night, in order that the exact words may be kept to. One of the native objections to learning to write is that these men answer the purpose of transmitting intelligence to a distance as well as a letter would; and, if a person wishes to communicate with any one in the town, the best way to do so is either to go to or

send for him; and as for corresponding with friends very far off, that is all very well for white people, but the blacks have no friends to whom to write. The only effective argument for their learning to read is that it is their duty to know the revelation from their Father in Heaven as it stands in the Book.

Our messenger returned on the evening of the following day with "You speak truly," says Sekeletu; "the disease is old; come on at once; do not sleep in the path; for I am greatly desirous (*tlologeleece*) to see the doctor."

After Mochokotsa left us, we met some of Mokompa's men bringing back the ivory, as horses were preferred to the West Coast goods. They were the bearers of instructions to Mokompa, and as these instructions illustrate the government of people who have learned scarcely any thing from Europeans, they are inserted, though otherwise of no importance. Mashotlane had not behaved so civilly to Mr. Baldwin as Sekeletu had ordered him to do to all Englishmen. He had been very uncivil to the messengers sent by Moselekatse with letters from Mr. Moffat, treated them as spies, and would not land to take the bag until they moved off. On our speaking to him about this, he justified his conduct on the plea that he was set at the Falls for the very purpose of watching these, their natural enemies; and how was he to know that they had been sent by Mr. Moffat? Our men thereupon reported at head-quarters that Mashotlane had cursed the doctor. The instructions to Mokompa from Sekeletu were to "go and tell Mashotlane that he had offended greatly. He had not cursed Monare (Dr. Livingstone), but Sebituane, as Monare was now in the place of Sebituane, and he revered him as he had done his father. Any fine taken from Mr. Baldwin was to be returned at once, as he was not a Boer, but an English-

Sekaletu was very angry, and Mokompa must not deliver the message!

On finding afterward that Mashotlane's conduct had been so outrageous to the Batoka, Sekaletu sent for him to come to Sesheke, in order that he might have him more under his own eye; but Mashotlane, fearing that this meant the punishment of death, sent a polite answer, alleging that he was ill and unable to travel. Sekaletu tried again to remove Mashotlane from the Falls, but without success. In theory the chief is absolute and quite despotic; in practice his authority is limited, and he can not, without occasionally putting rebellious head men to death, force his subordinates to do his bidding.

Except the small rapids by Mparira Island, near the mouth of the Ghobe, the rest of the way to Sesheke by water is smooth. Herds of cattle of two or three varieties graze on the islands in the river: the Batoka possessed a very small kind of beautiful shape, and remarkably tame, and many of which still be seen; a larger kind, many of which have horns independent, and loose at the roots; and a still larger sort, with horns of extraordinary dimensions, apparently a burden for the beast to carry. This breed was found in abundance at the Ngami. We stopped at noon at one of the cattle-posts of Mokompa, and had a refreshing drink of milk. Men of this standing have usually several herds placed at different posts, and the owner visits each in turn, while his head-quarters are at his village. His son, a boy of ten, had charge of the establishment during his father's absence. According to the old ideas, the cattle-post is the proper school in which a boy should be brought up. Here they receive the right education—the knowledge of pasture, and how to man-

Strong easterly winds blow daily from noon till midnight, and continue till the October or November rains set in. Whirlwinds, raising huge pillars of smoke from burning grass and weeds, are common in the forenoon. We were nearly caught in an immense one. It crossed about twenty yards in front of us, the wind apparently rushing into it from all points of the compass. Whirling round and round in great eddies, it swept up hundreds of feet into the air a continuous dense dark cloud of the black pulverized soil, mixed with dried grass, off the plain. Herds of the new antelopes, lechwé, and poku, with the kokong, or gnus, and zebras, stood gazing at us as we passed. The mirage lifted them at times half way to the clouds, and twisted them and the clumps of palms into strange unearthly forms. The extensive and rich level plains by the banks, along the sides of which we paddled, would support a vast population, and might be easily irrigated from the Zambesi. If watered, they would yield crops all the year round, and never suffer loss by drought. The hippopotamus is killed here with long lance-like spears. We saw two men, in a light canoe, stealing noiselessly down on one of these animals thought to be asleep; but it was on the alert, and they had quickly to retreat. Comparatively few of these animals now remain between Sesheke and the Falls, and they are uncommonly wary, as it is certain death for one to be caught napping in the daytime.

On the 18th we entered Sesheke. The old town, now in ruins, stands on the left bank of the river. The people have built another on the same side, a quarter of a mile higher up, since their head man Moriantsiano was put to death for bewitching the chief with leprosy. Sकेlotu was on the right bank, near a number of temporary huts. A man hailed us from the chief's quarters, and requested us to rest under the

Makololo usually devour all the fat first, that being considered the best, and afterward eat the lean, and, last of all, the porridge or bread, if they have any. The people who, like them, live much on milk and meat, can bear fatigue and privation much better than those whose sustenance is chiefly grain and pulse. When the Makololo go on a foray, as they sometimes do, a month distant, many of the subject tribes, who accompany them, being grain eaters, perish from sheer fatigue, while the beef eaters scorn the idea of even being tired.

A constant stream of visitors rolled in on us the day after our arrival. Several of them, who had suffered afflictions during the doctor's absence, seemed to be much affected on seeing him again. All were in low spirits. A severe drought had cut off the crops, and destroyed the pasture of Linyanti, and the people were scattered over the country in search of wild fruits, and the hospitality of those whose ground-nuts (*Arachis hypogaea*) had not failed. Sekletu's leprosy brought troops of evils in its train. Believing himself bewitched, he had suspected a number of his chief men, and had put some, with their families, to death; others had fled to distant tribes, and were living in exile. The chief had shut himself up, and allowed no one to come into his presence but his uncle Mamire. Ponwane, who had been as "head and eyes" to him, had just died; evidence, he thought, of the potent spells of those who hated all who loved the chief. The country was suffering grievously, and Sebituane's grand empire was crumbling to pieces. A large body of young Barotse had revolted and fled to the north, killing a man by the way, in order to put a blood-fouad between Masiko, the chief to whom they were going, and Sekletu. The Batoka under Sinamane, and Muemba, were independ-

ent, and Mashotlane at the Falls was setting Sekeletu's authority virtually at defiance. Sebituane's wise policy in treating the conquered tribes on equal terms with his own Makololo, as all children of the chief, and equally eligible to the highest honors, had been abandoned by his son, who married none but Makololo women, and appointed to office none but Makololo men. He had become unpopular among the black tribes, conquered by the spear, but more effectually won by the subsequent wise and just government of his father.

Strange rumors were afloat respecting the unseen Sekeletu; his fingers were said to have grown like eagle's claws, and his face so frightfully distorted that no one could recognize him. Some had begun to hint that he might not really be the son of the great Sebituane, the founder of the nation, strong in battle, and wise in the affairs of state. "In the days of the Great Lion" (Sebituane), said his only sister, Moriantiane's widow, whose husband Sekeletu had killed, "we had chiefs, and little chiefs, and elders to carry on the government, and the great chief, Sebituane, knew them all, and every thing they did, and the whole country was wisely ruled; but now Sekeletu knows nothing of what his underlings do, and they care not for him; and the Makololo power is fast passing away."*

* In 1865, four years after these forebodings were penned, we received intelligence that they had all come to pass. Sekeletu died in the beginning of 1864: a civil war broke out about the succession to the chieftainship; a large body of those opposed to the late chief's uncle, Impololo, being regent, departed with their cattle to Lake Ngami; an insurrection by the black tribes followed; Impololo was slain, and the kingdom, of which, under an able, sagacious mission, a vast deal might have been made, has suffered the usual fate of African conquests. That fate we deeply deplore; for, whatever other faults the Makololo might justly be charged with, they did not belong to the class who buy and sell each other, and the tribes who have succeeded them do.

The native doctors had given the case of Sekeletu up. They could not cure him, and pronounced the disease incurable. An old doctress from the Manyeti tribe had come to see what she could do for him, and on her skill he now hung his last hopes. She allowed no one to see him except his mother and uncle, making entire seclusion from society an essential condition of the much-longed-for cure. He sent, notwithstanding, for the doctor; and on the following day we all three were permitted to see him. He was sitting in a covered wagon, which was inclosed by a high wall of close-set reeds; his face was only slightly disfigured by the thickening of the skin in parts, where the leprosy had passed over it; and the only peculiarity about his hands was the extreme length of his finger-nails, which, however, was nothing very much out of the way, as all the Makololo gentlemen wear them uncommonly long. He has the quiet, unassuming manners of his father, Sebituane; speaks distinctly, in a low, pleasant voice, and appears to be a sensible man, except perhaps on the subject of his having been bewitched, and in this, when alluded to, he exhibits as firm a belief as if it were his monomania. "Moriantiane, my aunt's husband, tried the bewitching medicine first on his wife, and she is leprous, and so is her head servant; then, seeing that it succeeded, he gave me a stronger dose in the cooked flesh of a goat, and I have had the disease ever since. They have lately killed Ponwane, and, as you see, are now killing me." Ponwane had died of fever a short time previously. Sekeletu asked us for medicine and medical attendance, but we did not like to take the case out of the hands of the female physician already employed, it being bad policy to appear to undervalue any of the profession; and she, being anxious to go on with her remedies, said "she had not given him up yet, but would try

for another month; if he was not cured by that time, then she would hand him over to the white doctors." But we intended to leave the country before a month was up; so Mamire, with others, induced the old lady to suspend her treatment for a little. She remained, as the doctors stipulated, in the chief's establishment, and on full pay.

Sekeletu was told plainly that the disease was unknown in our country, and was thought exceedingly obstinate of cure; that we did not believe in his being bewitched, and we were willing to do all we could to help him. This was a case for disinterested benevolence; no pay was expected, but considerable risk incurred; yet we could not decline it, as we had the trading in horses. Having, however, none of the medicines usually employed in skin diseases with us, we tried the local application of lunar caustic, and hydriodate of potash internally; and with such gratifying results, that Mamire wished the patient to be smeared all over with a solution of lunar caustic, which he believed to be of the same nature as the blistering fluid formerly applied to his own knee by Mr. Oswell. Its power he considered irresistible, and he would have had any thing like it tried on Sekeletu.

The disease begins with slight discoloration of the surface, and at first affects only the cuticle, the patches spreading in the manner, and with somewhat of the appearance, of lichens, as if it were a fungus; small vesicles rise at the outer edges of the patches, and a discharge from the vesicles forms scabs. The true skin next thickens and rises in nodules, on the forehead, nose, and ears; and, when the disease is far advanced, foul fissures appear on the toes and fingers; these eventually drop off, and sometimes the deformed patient recovers. The natives believe it to be hereditary, and non-contagious; but, while working with this case, something very like it was

transplanted to the hands of Drs. Kirk and Livingstone, and was cured only by the liberal use of the caustic. The chief's health and spirits became better as the skin became thinner, and the deformity of face disappeared. The aged doctress, naturally wishing to obtain some credit for the improvement, began secretly to superadd her remedies, which consisted of scraping the diseased skin, and rubbing it with an astringent bark in powder. She desisted on receiving a hint from Mamire that perhaps the medicine of the white doctors and the medicine of the black doctors might not work well together.

It was a time of great scarcity and hunger, but Sekeletu treated us hospitably, preparing tea for us at every visit we paid him. With the tea we had excellent American biscuit and preserved fruits, which had been brought to him all the way from Benguela. The fruits he most relished were those preserved in their own juices — plums, apples, pears, strawberries, and peaches, which we have seen only among Portuguese and Spaniards. It made us anxious to plant the fruit-tree seeds we had brought, and all were pleased with the idea of having these same fruits in their own country.

Mokele, the head man of Sesheke, and Sebituane's sister, Manchunyane, were ordered to provide us with food, as Sekeletu's wives, to whom this duty properly belonged, were at Linyanti. We found a black trader from the West Coast, and some Griqua traders from the South, both in search of ivory. Ivory is dear at Sesheke; but cheaper in the Batoka country, from Sinamane's to the Kafue, than any where else. The trader from Benguela took orders for goods for his next year's trip, and offered to bring tea, coffee, and sugar at cent-per cent. prices. As, in consequence of a hint formerly given, the Makololo had secured all the ivory in the Batoka country to the east by purchasing it with hoes, the Benguela

small, being only nineteen inches high, and twenty-two inches wide at the floor. A foot from the bottom it measured seventeen inches in breadth, and close to the top only twelve inches, so it was a difficult matter to get through it. The tower has no light or ventilation except through this small door. The reason a lady assigned for having the doors so very small was to keep out the mice!

The children have merry times, especially in the cool of the evening. One of their games consists of a little girl being carried on the shoulders of two others. She sits with outstretched arms as they walk about with her, and all the rest clap their hands, and, stopping before each hut, sing pretty airs, some beating time on their little kilts of cowskin, others making a curious humming sound between the songs. Excepting this and the skipping-rope, the play of the girls consists in imitation of the serious work of their mothers, building little huts, making small pots, and cooking, pounding corn in miniature mortars, or hoeing tiny gardens. The boys play with spears of reeds pointed with wood, and small shields, or bows and arrows; or amuse themselves in making little cattle-pens, or in moulding cattle in clay: they show great ingenuity in the imitation of various-shaped horns. Some, too, are said to use slings, but as soon as they can watch the goats or calves, they are sent to the field. We saw many boys riding on the calves they had in charge, but this is an innovation since the arrival of the English with their horses. Tselane, one of the ladies, on observing Dr. Livingstone noting observations on the wet and dry bulb thermometers, thought that he too was engaged in play; for, on receiving no reply to her question, which was rather difficult to answer, as the native tongue has no scientific terms, she said, with roguish glee, "Poor thing, playing like a little child!"

Like other Africans, the Makololo have great faith in the power of medicine; they believe that there is an especial medicine for every ill that flesh is heir to. Mamire is anxious to have children; he has six wives, and only one boy, and he begs earnestly for "child medicine." The mother of Sकेलेतु came from the Barotse Valley to see her son. Thinks she has lost flesh since Dr. Livingstone was here before, and asks for "the medicine of fatness." The Makololo consider plumpness an essential part of beauty in women, but the extreme stoutness mentioned by Captain Speke in the north would be considered hideous here, for the men have been overheard speaking of a lady whom we call "inclined to *embonpoint*" as "fat unto ugliness."

Two packages from the Kuruman, containing letters and newspapers, reached Linyanti previous to our arrival, and Sकेलेतु, not knowing when we were coming, left them there, but now at once sent a messenger for them. This man returned on the seventh day, having traveled 240 geographical miles. One of the packages was too heavy for him, and he left it behind. As the doctor wished to get some more medicine and papers out of the wagon left at Linyanti in 1853, he decided upon going thither himself. The chief gave him his own horse, now about twelve years old, and some men. He found every thing in his wagon as safe as when he left it seven years before. The head men Mosala and Pekonyane received him cordially, and lamented that they had so little to offer him. Oh! had he only arrived the year previous, when there was abundance of milk, and corn, and beer!

Very early the next morning the old town-crier, Ma-Pulenyane, of his own accord made a public proclamation, which, in the perfect stillness of the town long before dawn, was striking: "I have dreamed! I have dreamed! I have dream-

a district infested by tsetse; to preserve the horses from being bitten, this was passed through by night. The party slept at the different Makololo cattle-stations. At one a lion had been killed by a serpent. We have often heard of animals being so killed; but in a twenty-two years' residence in the country, Dr. Livingstone has only met with one case in which the bite was fatal to a human being. Ipecacuanha mixed with ammonia, and rubbed into the wound, is much esteemed in India. A key, pressed on the puncture for some time, extracts the poison; and when ipecacuanha is not at hand, a little powder ignited on the spot will do instead. * Very large herds of kualatas were seen on the plains, and many black bucks, though their habitat is generally on the hills.*

Sekeletu's health improved greatly during our visit; the melancholy foreboding left his spirits, and he became cheerful, but resolutely refused to leave his den, and appear in public till he was perfectly cured, and had regained what he considered his good looks. He also feared lest some of those who had bewitched him originally might still be among the people, and neutralize our remedies. †

* A female kualata (*Alagoceros equino*) shot here measured—

	Ft. in.		Pt. in.		
At withers.....	4	8	Length of horn.....	2	3
Entire length.....	6	8	Half circumference at chest	2	8

These measurements may be interesting to those who try to acclimatize animals. The elands in England are small. One we measured in Africa in 1849 was six feet four inches at the withers, and it seemed an animal of only ordinary size. Its power of taking on fat, and the quantity of fluid found in its stomach in the driest season, are quite remarkable. It browses chiefly on the leaves of trees.

† It was with sorrow that we learned by a letter from Mr. Moffat, in 1864, that poor Sekeletu was dead. As will be mentioned farther on, men were sent with us to bring up more medicine. They preferred to remain on the Shire, and, as they were free men, we could do no more than try and persuade them to hasten back to their chief with iodine and other remedies. † They took the parcel, but there being only two real Makololo among them, these could neither return themselves alone nor force their attendants to leave a part of the

CHAPTER XVII.

Down to Kongona.—Latest Bulletin of "the Asthmatic."—The old Lady's Demise.—Reach Senna by Canoe.—Unprofitable Trading by Slaves.—The Biter bit, or Sequasha squeezed.—Coals dear by Slave Labor.—His Excellency's Yacht.—Kongona.—English Papers.—Flesh, Fowl, Fish, and harmonious Crabs of the Mangrove Swamps.—Busungu.—The Sawfish.

THE Zambesi being unusually low, we remained at Tette till it rose a little, and then left on the 8d of December for the Kongone. It was hard work to keep the vessel afloat; indeed, we never expected her to remain above water. New leaks broke out every day; the engine-pump gave way; the bridge broke down; three compartments filled at night; except the cabin and front compartment, all was flooded; and in a few days we were assured by Rowe that "she can't be worse than she is, sir." He and Hutchins had spent much of their time, while we were away, in patching her bottom, puddling it with clay, and shoring it, and it was chiefly to please them that we again attempted to make use of her. We had long been fully convinced that the steel plates were thoroughly unsuitable. On the morning of the 21st the uncomfortable "Asthmatic" grounded on a sand-bank and filled. She could neither be emptied nor got off. The river rose during the night, and all that was visible of the worn-out craft next day was about six feet of her two masts. Most of the property we had on board was saved, and we spent the Christmas of 1860 encamped on the island of Chimba. Canoes were sent for from Senna; and we reached it on the 27th, to be again hospitably entertained by our friend, Senhor Ferrão.

A large party of slaves belonging to the commandant, after having been away the greater part of a year, had just re-

turned from a trading expedition to Moselekatse's country. They had taken inland a thousand muskets and a large quantity of gunpowder, these being, they said, the only articles Moselekatse cares to purchase. They started on their journey back with ivory, ostrich feathers, a thousand sheep and goats, and thirty head of fine cattle. Moselekatse sent, in addition, as a token that the traders and he had parted good friends, a splendid white bull to the commandant. The ostrich feathers had been packed in reeds; a fire broke out in the camp one night, and most of them were burned. On their way the cattle had to pass through a tsetse country, and they all died from the effects of the bite. The white bull perished within two days of Senna; six hundred of the sheep and goats had been eaten, either because they became lame, or because the drivers were hungry. The commandant, having an attack of fever, was unable to calculate his losses, but intended to imprison the slaves, who, as usual, thought more of their own comfort than of their master's gain. Slave labor is certainly very dear; for an Englishman with two wagons and ten people could have made a more profitable trip to Moselekatse's—from the much greater distances of Natal or the Cape—than was made by these hundreds of slaves.

When we met Sequasha, he confessed to having already amassed 800 arrobas or 25,600 lbs. of ivory, the most of it purchased for a mere trifle. His comrade had about half that amount, or 12,800 lbs. When Sequasha returned to Tette in the following year, he was cast into prison in the fort. He had brought down several tons of ivory, and was soon a free man again. The ostensible reason for his imprisonment was the disorders he had been guilty of in the interior; but this was only like the customary manipulation by which, in pisciculture, the salmon is made to yield her spawn.

Lady Nyassa. Ground was leveled on the bank at Shupanga for the purpose of arranging the compartments in order: she was placed on palm-trees which were brought from a place lower down the river for ways, and the engineer and his assistants were soon busily engaged; about a fortnight after they were all brought from Kongone, the sections were screwed together. The blacks are more addicted to stealing where slavery exists than elsewhere. We were annoyed by thieves, who carried off the iron screw-bolts, but were gratified to find that strychnine saved us from the man-thief as well as the hyena-thief. A hyena was killed by it, and after the natives saw the dead animal and knew how we had destroyed it, they concluded that it was not safe to steal from men who possessed a medicine so powerful. The half-caste who kept Shupanga-house, said he wished to have some to give to the Zulus, of whom he was mortally afraid, and to whom he had to pay an unwilling tribute.

The Pioneer made several trips to the Kongone, and returned with the last load on the 12th of June. On the 23d the Lady Nyassa was safely launched, the work of putting her together having been interrupted by fever and dysentery, and many other causes which it would only weary the reader to narrate in detail. Natives from all parts of the country came to see the launch, most of them quite certain that, being made of iron, she must go to the bottom as soon as she entered the water. Earnest discussions had taken place among them with regard to the propriety of using iron for ship-building. The majority affirmed that it would never answer. They said, "If we put a hoe into the water, or the smallest bit of iron, it sinks immediately. How, then, can such a mass of iron float? it must go to the bottom." The minority answered that this might be true with them, but white men had medi-

cine for every thing. "They could even make a woman, all except the speaking; look at that one on the figure-head of the vessel." The unbelievers were astonished, and could hardly believe their eyes when they saw the ship float lightly and gracefully on the river instead of going to the bottom, as they so confidently predicted. "Truly," they said, "these men have powerful medicine."

Our distinguished countryman, Professor Owen, recommended our attention to be directed to the genesis of the tsetse, in order to discover a means for the extirpation of this pest. We frequently inquired of the different tribes if they could help us in our inquiries; and one of the Makololo remembered that this very question was once under public discussion at Linyanti, and, as usual, a bet was laid that no one could tell. After a number of days had elapsed, an old man claimed the prize, asserting that the tsetse laid its eggs, which were of a red color, on the leaves of the mopane-tree. These were probably only the eggs of an insect described in the "Missionary Travels" as depositing over its eggs a sweet gum, which is collected and eaten. Some denied that he had seen them; others affirmed that the red eggs were laid on the twigs of trees, and not on the leaves; and others insisted that the eggs were placed in the droppings of buffaloes, and these last were probably in the right. The destruction of all game by the advance of civilization is the only chance of getting rid of the tsetse.

We remember to have heard a furious discussion among the natives on the question whether the two toes of the ostrich represent the thumb and fore finger in man, or the little and ring fingers. On these occasions it is amusing to observe the freedom and earnestness with which men of the lowest grade assault the opinions of their betters. It is not often that

and liberty would spread to all the interior. We still think it may be a centre for civilizing influences; for any one descending from these cool heights, and stepping into a boat on the Upper Shire, can sail three hundred miles without a check into the heart of Africa.

We passed through a tract of country covered with mopane-trees, where the hard-baked soil refused to let the usual thick crops of grass grow; and here we came upon very many tracks of buffaloes, elephants, antelopes, and the spoor of one lion. An ox we drove along with us, as provision for the way, was sorely bitten by the tsetse. The effect of the bite was, as usual, quite apparent two days afterward, in the general flaccidity of the muscles, the drooping ears, and looks of illness. It always excited our wonder that we, who were frequently much bitten too by the same insects, felt no harm from their attacks. Man shares the immunity of the wild animals.

Though this was the dry, or rather hot season, many flowers were in blossom along our path. The euphorbia, baobab, and caparidaceous trees were in full bloom. A number of large hornbills attracted our attention, and Masiko, approaching the root of a tree in order to take sure aim at the birds, did not observe that within a few yards of the same tree two elephants stood in the cool shade fanning themselves with their huge ears. Dr. Livingstone fired a ball into the ear of one of the animals at thirty yards distance, but he only went off shaking his head, and Masiko for the first time perceived his danger as the beast began to tear away through the bush. Many Manganja skeletons were passed on entering a grove of lofty trees, under whose deep shade stood the ruins of a large village. Wild animals had now taken possession of what had lately been the abodes of men living in peace and plenty.

to the west of us, and no one was safe except in a stockade. We have so often, in traveling, heard of war in front, that we paid little attention to the assertion of Chembi, that the whole country to the N.W. was in flight before these Mazitu, under a chief with the rather formidable name of Mowhiriwhiri; we therefore resolved to go on to Chinsamba's, still farther in the same direction, and hear what he said about it.

In marching across the same kind of fertile plains, there was little to interest the mind. The air was very sultry, for this is the "hot season" of the year. A thick haze restricted our view on all sides to a few miles. The blazing glare of the torrid sun on this haze gives to one, accustomed to mists elsewhere, the impression of being enveloped in a hot fog. The cultivation was very extensive, and naturally drew our thoughts to the agriculture of the Africans. On one part of this plain the people had fields of maize, the plants of which towered far over our heads. A succession of holes three feet deep and four wide had been made in a sandy dell, through which flowed a perennial stream. The maize sown in the bottom of these holes had the benefit of the moisture, which percolated from the stream through the sand; and the result was a flourishing crop at a time of year when all the rest of the country was parched and dusty. On our counting the grains in one large cob or ear of maize, it was found to contain 300, and as one stalk has at times two or three cobs, it may be said to yield three or four hundred-fold.

While advantage is taken of the moist stratum in these holes during the dry season, grain, beans, and pumpkins, which are cultivated only in the rainy time of the year, are planted on ridges a foot high, allowing the superabundant moisture to run off. Another way in which the natives show their skill in agriculture is by collecting all the weeds and

grass into heaps, covering them with soil, and then setting fire to them. They burn slowly, and all the ashes and much of the smoke is retained in the overlying soil. The mounds thus formed, when sown upon, yield abundantly. The only instrument of husbandry here is the short-handled hoe; and about Tette the labor of tilling the soil, as represented in the wood-cut, is performed entirely by female slaves. On the



Females Hoeing.

West Coast a double-handled hoe is employed. Here the small hoe is seen in the hands of both men and women. In other parts of Africa a hoe with a handle four feet long is used; but the plow is quite unknown.

In illustration of the manner in which the native knowledge of agriculture strikes an honest intelligent observer, it may be mentioned that the first time good Bishop Mackenzie beheld how well the fields of the Manganja were cultivated

on the hills, he remarked to Dr. Livingstone, then his fellow-traveler, "When telling the people in England what were my objects in going out to Africa, I stated that, among other things, I meant to teach these people agriculture; but I now see that they know far more about it than I do." This, we take it, was an honest, straightforward testimony, and we believe that every unprejudiced witness, who has an opportunity of forming an opinion of Africans who have never been debased by slavery, will rank them very much higher in the scale of intelligence, industry, and manhood, than others who know them only in a state of degradation.

In two days' march we counted twenty-four cotton patches, each at least one fourth of an acre in extent. One was 240 paces broad. All, as before observed, had been kept so clear of weeds, that the fires passed by the cotton bushes in the regular grass-burnings without touching them.

Men and women were seen carrying their grain from villages toward the stockades; much corn stowed along the path evinced the haste with which it had been borne to the places of safety. Some were cutting down the large old euphorbia-trees, and an umbelliferous tree which surrounded the villages, in order that a clear view of the approach of the enemy might be obtained. Then one dead body lay in our path with a wound in the back; then another, and another, lying in the postures assumed in mortal agony, which no painter can reproduce. On coming near Chinsamba's two stockades, on the banks of the Lintipe, we were told that the Mazitu had been repulsed there the day before, and we had evidence of the truth of the report of the attack in the sad sight of the bodies of the slain. The Zulus had taken off large numbers of women laden with corn, and, when driven back, had cut off the ears of a male prisoner, as a sort of

These may be proofs of folly to some, but to others they are telling evidence that our religion has lost none of its pristine power. Nothing, in our opinion, is wanting to complete the title of many of these men to take rank with the saints and martyrs of primitive times. More experience of the climate has since greatly diminished the mortality, and in 1861 there were, on the West Coast, one hundred and ten principal Mission-stations, thirteen thousand scholars in the schools, and nineteen thousand members in the churches.

Bishop Mackenzie had in a short time gained the first step—he had secured the confidence of the people. This step it often takes several years to attain; and we can not but regret that subsequently the Mission of the Universitates, when contrasted with others, should appear to so much disadvantage. In fact, though representing all that is brave, and good, and manly in the chief seats of English learning, the Mission, in fleeing from Marambala to an island in the Indian Ocean, acted as St. Augustine would have done had he located himself on one of the Channel Islands when sent to christianize the natives of Central England. This is, we believe, the first case of a Protestant Mission having been abandoned without being driven away.

In January, 1864, the natives all confidently asserted that at next full moon the river would have its great and permanent flood. It had several times risen as much as a foot, but fell again as suddenly. It was curious that their observation coincided exactly with ours, that the flood of inundation happens when the sun comes overhead on his way back to the equator. We mention this more minutely because, from the observation of several years, we believe that in this way the inundation of the Nile is to be explained. On the 19th the Shire suddenly rose several feet, and we started at once; and

stopping only for a short time at Chibisa's to bid adieu to the Ajawa and Makololo, who had been extremely useful to us of late in supplying maize and fresh provisions, we hastened on our way to the ocean. In order to keep steerage way on the Pioneer, we had to go quicker than the stream, and unfortunately carried away her rudder in passing suddenly round a bank. The delay required for the repairs prevented our reaching Morambala till the 2d of February.

The flood-water ran into a marsh some miles above the mountain, and became as black as ink; and when it returned again to the river, emitted so strong an effluvia of sulphureted hydrogen that one could not forget for an instant that the air was most offensive. The natives said this stench did not produce disease. We spent one night in it, and suffered no ill effects, though we fully expected an attack of fever. Next morning every particle of white paint on both ships was so deeply blackened that it could not be cleaned by scrubbing with soap and water. The brass was all turned to a bronze color, and even the iron and ropes had taken a new tint. This is an additional proof that malaria and offensive effluvia are not always companions. We did not suffer more from fever in the mangrove swamps, where we inhaled so much of the heavy, mousey smell that it was distinguishable in the odor of our shirts and flannels, than we did elsewhere.

We carried in the foul and blackening emanations from the marsh because we had agreed to receive on board about thirty poor orphan boys and girls, and a few helpless widows whom Bishop Mackenzie had attached to his Mission. All who were able to support themselves had been encouraged by the missionaries to do so by cultivating the ground, and they now formed a little free community. But the boys and girls, who were only from seven to twelve years of age, and