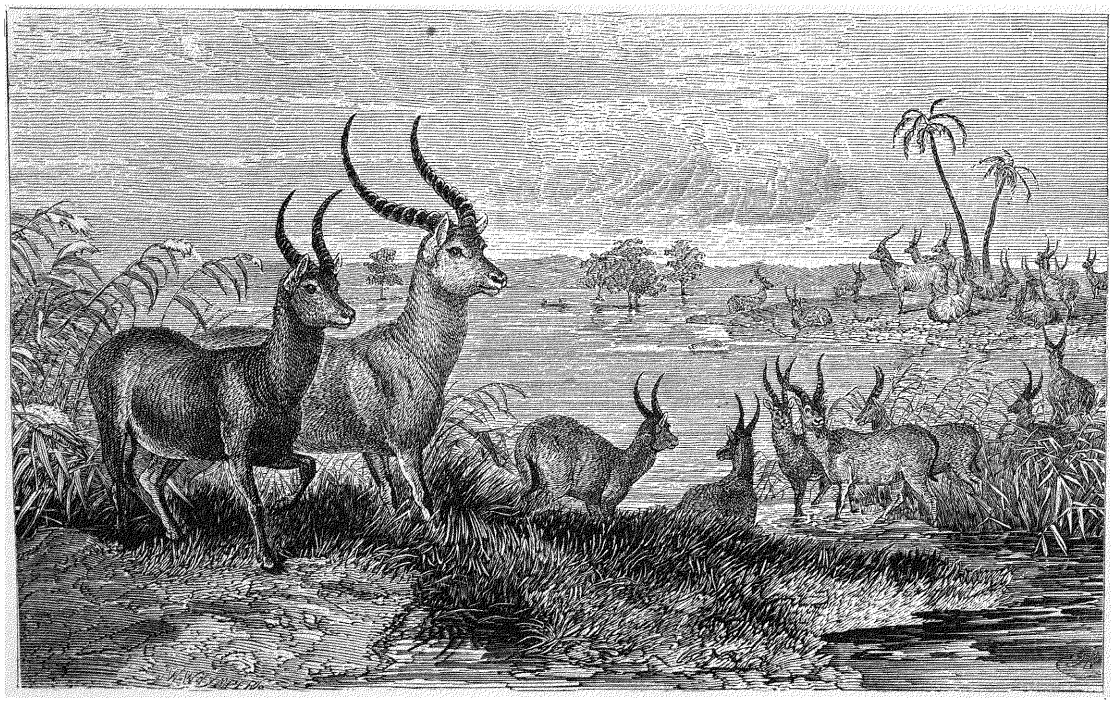
miles off. At the Limpopo, to the south-east, they are upwards of twelve feet high; here they were only eleven; and further north they are only nine feet. The koodoo, or tolo, seemed smaller than those to which we had been accustomed. We saw specimens of the kuabaōba, or straight-horned rhinoceros (*R. Oswellii*), which is a variety of the white (*R. simus*); and we found that, from the horn being projected downwards, it did not obstruct the line of vision, which enables this species to be much more wary than its neighbours.

We discovered an entirely new and beautiful species of water-antelope, called leché or lechwi. It is of a light brownish-yellow colour. The chest, belly, and orbits are nearly white. The horns, which are exactly like those of the *Aigoceros ellipsiprimnus*, the water-buck, or tumōga of the Bechuanas, rise from the head with a slight bend backwards, and then curve forwards at the points. From the horns to the withers the male has a small mane of the same yellowish colour with the rest of the skin, and the tail has a tuft of black hair. It is never found a mile from water. Islets in marshes and rivers are its favourite haunts, and it is quite unknown except in the central humid basin of Africa. As it stands gazing with head erect at the approaching stranger, it presents a noble appearance. When about to decamp it lowers its head, and lays its horns down to a level with the withers. It begins at starting with a waddling trot, which ends in its galloping and springing over bushes like the pallahs. It invariably runs to the water, and crosses it by a succession of bounds, each of which appears to be from the bottom. We thought the flesh good at first, but soon got tired of it.

Great shoals of excellent fish come down annually with the waters. The mullet (*Mugil Africanus*) is the most abundant. They are caught in nets. The *Glanis siluris*, a large broad-headed fish, without scales, and barbed—called by the natives "mosala"—grows to such an enormous size, that when a man carries one over his shoulder the tail reaches the ground. It is a vegetable feeder, and in many of its habits resembles the eel. Like most lophoid fishes, it has the power of retaining a large quantity of water in its great head, and can thus leave the river, and even be buried in the mud of dried-up pools, without being destroyed. Another fish, named *Clarias*



NEW AFRICAN ANTELOPES (POKU AND LECHÉ) DISCOVERED BY OSWELL, MURRAY, AND LIVINGSTONE.

capensis by Dr. Smith, resembles it closely, and is widely diffused throughout the interior. They often leave the rivers to feed in pools, and, as these dry up, large numbers of them are entrapped by the people. A water-snake, spotted yellow and dark brown, is frequently seen swimming with its head above the water. It is quite harmless, and is relished as food by the Bayeiye. They live much on fish, which are an abomination to the Bechuanas in the south. They are caught in large numbers by nets made of the fine strong fibres of the hibiscus, which grows abundantly in all moist places. The mode of knotting the nets is identical with our own. The float-ropes of the Bayeiye are made of the ifé, or, as it is now called, the *Sanseviera Angolensis*, a flag-looking plant, with a strong fibre, that abounds from Kolobeng to Angola. The floats themselves are pieces of a water-plant with valves at each joint, which retain the air in cells about an inch long. The Bayeiye also spear the fish with javelins. They show great dexterity in harpooning the hippopotamus. The barbed blade of the spear is attached to a rope made of the young leaves of the palmyra, and the animal cannot rid himself of the canoe, except by smashing it, which he not unfrequently does by his teeth or by a stroke of his hind foot.

CHAPTER IV.

SECOND AND THIRD JOURNEYS FROM KOLOBENG.—THE CHOBE.—RAVAGES OF TSETSE.—THE MAKOLOLO: CAREER OF THEIR CHIEF SEBITUANE.—DISCOVERY OF THE ZAMBESI.—SLAVE-TRADE.—RETURN TO THE CAPE.

I RETURNED to Kolobeng and remained there till April, 1850. I then left, in company with Mrs. Livingstone, our three children, and the chief Sechele, with the intention of crossing the Zouga at its lower end, and proceeding up the northern bank till we gained the Tamunak'le. My purpose was next to ascend that river and visit Sebituane in the north. Sekomi had given orders to fill up the wells which we had dug with so much labour at Serotli, and induced us to take the

more eastern route through the Bamangwato town and by Letloche.

Parting at the ford with Sechele, who was eager to visit Lechulatebe, we went along the northern woody bank of the Zouga. We had to cut down many trees to allow the waggons to pass, and our losses by oxen falling into pitfalls were heavy. The Bayeiye kindly opened the pits when they knew of our approach. On drawing near to the confluence of the Tamunak'le we were informed that the fly called tsétse* abounded on its banks. This was a barrier we did not expect; and as it might have brought our waggons to a complete standstill in a wilderness, where no supplies for the children could be obtained, we were reluctantly compelled to recross the Zouga.

From the Bayeiye we learned that a party of Englishmen, who had come to the lake in search of ivory, were ill with fever. We hastily travelled about sixty miles to render what aid was in our power, and found that Mr. Alfred Rider, an enterprising young artist who had come to make sketches of the country, had died before our arrival. By the aid of medicines and such comforts as could be provided by the only English lady who ever visited the lake, the others happily recovered.

When I was ready to set out on my road to visit Sebituane our little boy and girl were seized with fever. On the day following all our servants were down with the same complaint. I was now forced to give up my journey for that year. On our return we met Mr. Oswell on the Zouga. He devoted the rest of this season to the chase of the elephant, in which the natives declare he is the greatest adept that ever came into the country. He performed the feat of hunting without dogs. A few yelping curs distract the attention of the elephant and make him quite incapable of attending to man. He endeavours to crush them by falling on his knees; and sometimes places his forehead against a tree ten inches in diameter, and pushes it down before him. The only danger the huntsman has to apprehend is that the dogs may run towards him, and bring the elephant along with them. The inhabitants

* *Glossina morsitans*; the first specimens of which were brought to England in 1848 by my friend Major Vardon, from the banks of the Limpopo.

conceived from Mr. Oswell's prowess a high idea of English courage, and when they wished to flatter me would say, "If you were not a missionary you would be just like Oswell; you would not hunt with dogs either." He has been known to kill four large old males in a day, and the value of the ivory would be one hundred guineas.

When Sebituane heard of our attempts to visit him, he despatched three detachments of his men with thirteen brown cows to Lechulatebe, thirteen white cows to Sekomi, and thirteen black cows to Sechele, with a request to each to assist the white men to reach him. Their policy, however, was to act as his agents in purchasing with his ivory the goods he wanted. We had gone to Kuruman; and Sechele allowed all the messengers to leave before our return to Kolenberg. This monopolising spirit pervades all Africa; and as that continent is without friths and arms of the sea, the tribes in the centre have always been debarred from European intercourse.

When we set out on our third journey Sekomi was more than usually gracious, and even furnished us with a guide. No one, however, knew the path beyond Nchokotsa. When we reached that point we found that the mainspring of the gun of a man who was well acquainted with the Bushmen, through whose country we should pass, had opportunely broken. I never undertook to mend a gun with greater zest. Under a promise of the guidance of its owner we went to the north instead of westward.

We passed quickly over a hard flat country. A little soil lying on calcareous tufa supports over a tract of several hundreds of miles a vegetation of sweet short grass and mopane and baobab trees. In several parts we found large saltpans, one of which, Ntwétwe, is fifteen miles broad and one hundred long. The latitude might have been taken on its horizon as well as upon the sea. Although these curious spots seem perfectly level, they have a gentle slope to the north-east, which is the direction of the Zouga. As the rain-water gently gravitates thither it carries with it the salt it has dissolved, which by this means has all been transferred to one pan named Chuantsa, where we have a cake of salt and lime an inch and a half thick. Some of the pans are covered thickly with shells, which are identical with those of the mollusca of Lake

Ngami and the Zouga. There are three varieties—spiral, univalve, and bivalve.

On one side of every saltpan in the country there is a spring of water which is brackish and contains the nitrate of soda. If this supply came from beds of rock-salt the water would not be drinkable, and in some instances, where the salt in the pan has been removed by human agency, no fresh deposit occurs. It is therefore probable that the salt is the leavings of the slightly brackish lakes of antiquity, large portions of which must have been dried out in the general desiccation. We have already seen that Lake Ngami tastes brackish when the water becomes low and is greatly reduced in bulk. My conjecture seems supported by the fact that the largest quantities of salt have been found in the deepest hollows, which have no outlet.

We found a great number of wells in this tufa. As they occasionally become full in seasons when no rain falls, it is probable they receive some water by percolation from the river system in the country beyond. A place called Matlomagan-yána, or the "Links," is quite a chain of never-failing springs. Here we found many families of Bushmen. Unlike those on the plains of the Kalahari, who are generally of short stature and light-yellow colour, these were tall strapping fellows, of dark complexion. Heat alone does not produce blackness of skin, but heat with moisture seems to insure the deepest hue.

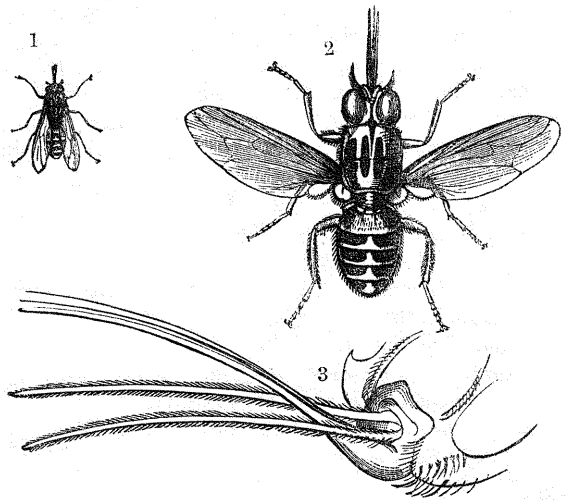
One of the Bushmen, named Shobo, consented to be our guide over the waste between these springs and the country of Sebituane. It is impossible to convey an idea of the dreary scene on which we entered after leaving the Links. The only vegetation was a low scrub in deep sand; not a bird or insect enlivened the landscape. To make matters worse, our guide Shobo wandered to all points of the compass on the trails of elephants which had been here in the rainy season. He would then sit down in the path and say, "No water, all country only;—Shobo sleeps;—he breaks down;—country only." Upon this he would coolly curl himself up and was soon wrapt in slumber. On the morning of the fourth day he professed ignorance of everything, and vanished altogether. We continued in the direction in which we last saw him, and

about eleven o'clock we observed some birds, and next the trail of a rhinoceros. At this we unyoked the oxen, which rushed along towards the river Mabábe, which comes from the Tamunak'le, and lay to the west of us. The supply of water in the waggons had been wasted by one of our servants, and by the afternoon only a small portion remained for the children. The next morning there was still less of water, and the little rogues became thirstier than ever. The idea of their perishing before our eyes was terrible. Not one syllable of upbraiding was uttered by their mother, though the tearful eye told the agony within. In the afternoon of the fifth day, to our inexpressible relief, some of the men returned with a supply of that fluid of which we had never before felt the true value.

The cattle in rushing along to the Mababe probably crossed a small patch of trees containing tsetse, an insect which was shortly to become a perfect pest to us. Shobo had found his way to the Bayeiye, and appeared, when we came up to the river, at the head of a party. As he wished to show his importance before his friends, he walked up boldly and commanded our whole cavalcade to halt, and to bring forth fire and tobacco. We stopped to admire the acting, and, though he had left us in the lurch, we all liked this fine specimen of that wonderful people the Bushmen.

Next day we came to a village of Banajoa, a tribe which extends far to the eastward. They were living on the borders of a marsh in which the Mababe terminates. They had lost their crop of corn (*Holcus sorghum*), and now subsisted almost entirely on the root called "tsitla," a kind of aroidœa, which contains a large quantity of sweet-tasted starch. When dried, pounded into meal, and allowed to ferment, it forms a not unpleasant article of food. The women shave all the hair off their heads, and seem darker than the Bechuanas. Their huts were built on poles, and they make a fire in them at night, that the smoke may drive away the mosquitoes, which abound on the Mababe and Tamunak'le more than in any other part of the country. The head-man of this village, Majáne, seemed a little wanting in ability; but had had wit enough to promote a younger member of the family to the office, who proved an active guide to us across the river Sonta, and to the banks of the Chobe, in the country of Sebituane.

We had come through another tsetse district by night, and at once passed our cattle over to the northern bank, which, though only fifty yards distant, was entirely free from the pest. This was the more singular that we often saw natives carrying over raw meat with many tsetse upon it. This insect, *Glossina morsitans* of the naturalist, is not much larger than the common house-fly, and is nearly of the same brown colour as the honey-bee. The after part of the body has three or four yellow bars across it. It is remarkably alert, and evades dexterously all attempts to capture it with the hand at common temperatures.



1. The Tsetse; size of life.—2. The same magnified.—3. The proboscis.

In the cool of the mornings and evenings it is less agile. Its peculiar buzz when once heard can never be forgotten by the traveller whose means of locomotion are domestic animals; for its bite is death to the ox, horse, and dog. In this journey, though we watched the animals carefully, and believe that not a score of flies were ever upon them, they destroyed forty-three fine oxen. A most remarkable feature is the perfect harmlessness of the bite in man and wild animals, and even calves so long as they continue to suck the cows, though it is no protection to the dog to feed him on milk.

The poison does not seem to be injected by a sting, or by ova placed beneath the skin, for, when the insect is allowed to feed freely on the hand, it inserts the middle prong of three portions, into which the proboscis divides, somewhat deeply into the true skin. It then draws the prong out a little way, and it assumes a crimson colour as the mandibles come into brisk operation. The previously shrunken belly swells out, and, if left undisturbed, the fly quietly departs when it is full. A slight itching irritation follows the bite. In the ox the immediate effects are no greater than in man; but a few days afterwards the eye and nose begin to run, the coat stares, a swelling appears under the jaw, and sometimes at the navel; and, though the poor creature continues to graze, emaciation commences, accompanied with a peculiar flaccidity of the muscles. This proceeds unchecked until, perhaps months afterwards, purging comes on, and the victim dies in a state of extreme exhaustion. The animals which are in good condition often perish soon after the bite is inflicted with staggering and blindness, as if the brain were affected. Sudden changes of temperature produced by falls of rain seem to hasten the progress of the complaint; but in general the wasting goes on for months.

When the carcase is opened, the cellular tissue beneath the skin is found injected with air, as if a quantity of soap-bubbles were scattered over it. The blood is small in quantity, and scarcely stains the hands in dissection. The fat is of a greenish-yellow colour and of an oily consistence. All the muscles are flabby, and the heart is often so soft that the fingers may be made to meet through it. The lungs and liver partake of the disease. The stomach and bowels are pale and empty, and the gall-bladder is distended with bile. These symptoms seem to indicate poison in the blood; the germ of which enters when the proboscis is inserted.

The mule, ass, and goat enjoy the same immunity from the tsetse as man and the game. Many large tribes on the Zambesi can keep no domestic animals except the goat, in consequence of the scourge existing in their country. Our children were frequently bitten, yet suffered no harm; and we saw around us numbers of zebras, buffaloes, pigs, pallahs and other antelopes, feeding quietly in the very habitat of

the fly. There is not so much difference in the natures of the horse and zebra, the buffalo and ox, the sheep and antelope, as to afford any satisfactory explanation of the phenomenon. Is not man as much a domestic animal as a dog? The disgust which the tsetse shows to animal excreta is turned to account by some of the doctors. They mix droppings of animals, human milk, and some medicines together, and smear the animals that are about to pass through an infested district. This, though a preventive at the time, is not a permanent protection. Inoculation does not insure immunity, as animals which have been slightly bitten in one year may perish by a greater number of bites in the next. It is probable that with the increase of guns the game will perish, as has happened in the south, and the tsetse, deprived of food, may become extinct simultaneously with the larger animals. The ravages it commits are sometimes enormous. Sebituane once lost nearly the entire cattle of his tribe, amounting to many thousands, by unwittingly intruding upon the haunts of this murderous insect.

The Makololo whom we met on the Chobe were delighted to see us. As their chief Sebituane was about twenty miles down the river, Mr. Oswell and I proceeded in canoes to his temporary residence. He had started from the Barótse town of Naliéle down to Seshéke as soon as he heard of white men being in search of him, and now came one hundred miles more to bid us welcome into his country. He was upon an island with all his principal men around him, engaged in singing, when we arrived. It was more like church music than the singsong ē ē ē, æ æ æ, of the Bechuanas in the south. They continued the tune for some seconds after we approached. He signified his joy, and added, "Your cattle are all bitten by the tsetse and will certainly die; but never mind; I have oxen, and will give you as many as you need." He presented us with an ox and a jar of honey as food, and handed us over to the care of Mahále, who had headed the messengers sent to Kolobeng, and would now fain appropriate to himself the whole credit of our visit. Prepared skins of oxen as soft as cloth were provided as a covering through the night; and since nothing could be returned to the chief, Mahale became the owner of them. Long before it was day

Sebituane came, and sat down by the fire which was lighted for us behind the hedge where we lay. As his career has been most remarkable, and he was unquestionably the greatest man in that country, I shall give a short sketch of his life.

He was about forty-five years of age; of a tall and wiry form, an olive or coffee-and-milk complexion, and slightly bald. His manner was cool and collected, and he was more frank in his answers than any other chief I have met. He was the greatest warrior ever heard of beyond the colony, and always led his men into batttle himself. When he saw the enemy he felt the edge of his battle-axe and said, "Aha! it is sharp, and whoever turns his back on the enemy will feel its edge." He was so fleet of foot, that all his people knew there was no escape for the coward. In some instances of skulking he allowed the individual to return home. Then he summoned him into his presence and said, "Ah, you prefer dying at home to dying in the field, do you? You shall have your desire." This was the signal for his immediate execution.

He came from the country near the sources of the Likwa and Namagári rivers in the south, and was now eight or nine hundred miles from his birthplace. He was not the son of a chief, though related closely to the reigning family of the Basútu. He was one in that immense horde of savages driven back by the Griquas from Kuruman in 1824, and he fled to the north with an insignificant party of men and cattle. At Melita the Bangwaketse collected the Bakwains, Bakátla, and Bahurutse, to "eat them up." Placing his men in front, and the women behind the cattle, he routed the whole of his enemies at one blow. Having thus conquered Makabe, the chief of the Bangwaketse, he took immediate possession of his town and all his goods.

Sebituane subsequently settled at Litubaruba, where Sechele now dwells, and his people suffered severely in one of those unrecorded attacks by white men, in which murder is committed and materials laid up in the conscience for a future judgment. A great variety of fortune followed him in the northern part of the Bechuana country. Twice he lost all his cattle by the attacks of the Matebele, but always kept his people together, and retook more than he lost. He then crossed the Desert by nearly the same path that we did.

Many of his cattle burst away from him in the frenzy of thirst. He stocked himself again among the Batletli, on Lake Kumadau, whose herds were of the large-horned species of cattle.* After some further adventures he moved down the Leeambye among the Bashubía and Batoka. The Batoka lived on large islands in the Leeambye, or Zambesi; and being perfectly secure in their fastnesses, often allured fugitive or wandering tribes on to uninhabited islets on pretence of ferrying them across, and there left them to perish. This was done for the sake of their goods. Sebituane, with his usual foresight, requested the island chief to take his seat in the canoe with him, and there our wily adventurer detained him till all the people and cattle were safely landed. The whole Batoka country was then densely peopled, and they had a curious taste for ornamenting their villages with the skulls of strangers. When Sebituane appeared near the great falls, an immense army collected to make trophies of the heads of the Makololo skulls. Instead of succeeding, they gave the strangers a good excuse for fighting, and they captured so many cattle that they were incapable of taking note of the sheep and goats. He overran all the high lands towards the river Kafúe, and settled in a pastoral country, of gently undulating plains, covered with short grass and but little forest. The Makololo have never lost their love for this fine healthy region.

But the Matebele, a Caffre or Zulu tribe, under Mosilikatse, crossed the Zambesi; and, attacking Sebituane in this choice spot, captured his cattle and women. Rallying his men, he followed and recaptured the whole. A fresh attack was repulsed by him, and he thought of going further down the Zambesi to the country of the whites. He had an idea that if he had a cannon he might live in peace. A prophet induced him to turn his face again to the westward. This man, by name Tlapáne, was called a "senoga"—one who holds intercourse with the gods. He probably had a touch of insanity, for he was in the habit of retiring, no one knew whither,

* We found the Batauána in possession of this breed when we discovered Lake Ngami. One of these horns, brought to England by Major Vardon, will hold no less than twenty-one imperial pints of water; and a pair, brought by Mr. Oswell, and now in the possession of Colonel Steele, measures from tip to tip eight and a half feet.

until the moon was full. He returned emaciated to the tribe, and worked himself into a state of ecstacy. These prophets stamp, leap, shout, and beat the ground with a club till they induce a kind of fit. They pretend that the utterances they give forth under its influence are unknown to themselves. Tlapane, pointing eastwards, said, "There, Sebituane, I behold a fire; shun it; it is a fire which may scorch thee. The gods say, Go not thither." Then, turning to the west, he said, "I see a city and a nation of black men—men of the water; their cattle are red; thine own tribe, Sebituane, is perishing, and will be all consumed; thou wilt govern black men, and, when thy warriors have captured red cattle, let not the owners be killed; they are thy future tribe—they are thy city; let them be spared to cause thee to build. And thou, Ramosínií, thy village will perish utterly. If Mokari removes from that village he will perish first, and thou, Ramosinii, wilt be the last to die." Concerning himself he added, "The gods have caused other men to drink water, but to me they have given bitter water of the chukuru (rhinoceros). They call me away myself. I cannot stay much longer."

This vaticination, which loses much in the translation, I have given rather fully, because it shows an observant mind. The policy recommended was wise, and his prophecy was verified by the destruction soon afterwards of the village, and the death of himself and the two men he had named. It is not therefore wonderful that Sebituane should have followed the warning voice. The fire pointed to was evidently the Portuguese fire-arms, of which he must have heard. The black men were the Barotse, or, as they term themselves, Baloiána; and Sebituane spared their chiefs, even though they attacked him first.

After he had ascended the Barotse valley he was pursued by the Matebele, as Mosilikatse never could forgive his former defeats. Sebituane placed some goats on one of the large islands of the Zambesi, as a bait to the warriors, and some men in canoes to co-operate in the manœuvre. When all the Matebele were ferried over, the canoes were removed, and the enemy found themselves in a trap. They subsisted for some time on the roots of grass after the goats were eaten, but gradually became so emaciated, that, when the Makololo

landed, they had only to perform the part of executioners on the adults, and adopted the rest into their own tribe. Mosilikatse next sent an immense army who carried canoes with them that no such mishap might occur again. Sebituane collected his men and cattle on the island of Loyélo, and watched the Matebele so closely that they could not cross the river without parting their forces. At last he went towards them, and, addressing them by an interpreter, asked why they wished to kill him; he had never attacked them, never harmed their chief: "Au!" he continued, "the guilt is on your side." The Matebele made no reply; but their canoes were found smashed and the owners gone. They set out to return to their own country, but fever, famine, and the Batoka destroyed them, and only five men got back to Mosilikatse.

Sebituane had now not only conquered all the black tribes over an immense tract of country, but had made himself dreaded even by the terrible Mosilikatse. He was as benevolent in peace as he had been courageous in war. He had the art of gaining the affections both of his own people and of strangers. When a party of poor men came to his town to sell their hoes or skins, he would go alone to them, and inquire if they were hungry. He would then order an attendant to bring meal, milk, and honey, and make them feast, perhaps for the first time in their lives, on a lordly dish. Delighted with his affability, they gave him all the information in their power, and he knew everything that happened in the country. He never allowed a party of strangers to go away without giving a present to every one of them, servants and all. Thus his praises were sounded far and wide. "He has a heart! he is wise!" were the usual expressions we heard before we saw him.

He was much pleased with the proof of confidence we had shown in bringing our children, and promised to take us to see his country, that we might choose a part in which to settle. Our plan was, that I should remain in the pursuit of my objects as a missionary, while Mr. Oswell explored the Zambesi to the east. Just however as he had established relations with the white man, which had long been his predominant desire, Sebituane fell sick of inflammation of the

lungs, which originated in an old wound got at Melita. I saw his danger, but I was afraid to treat him medically, lest, in the event of his death, I should be blamed by his people. I mentioned this to one of his doctors, who said, "Your fear is prudent and wise; they would blame you." He had been cured the year before by the Barotse making a large number of free incisions in the chest. The Makololo doctors now scarcely cut the skin. I visited him in company with my little boy Robert on the Sunday afternoon in which he died. "Come near," said Sebituane, "and see if I am any longer a man; I am done." I ventured to assent, and added a single sentence regarding hope after death. "Why do you speak of death?" said one of a relay of fresh doctors; "Sebituane will never die." After sitting with him some time, and commending him to the mercy of God, I rose to depart, when he raised himself up a little, called a servant, and said, "Take Robert to Maunku (one of his wives), and tell her to give him some milk." These were the last words of Sebituane.

The burial of a Bechuana chief takes place in his cattle-pen, and the cattle are driven for an hour or two around and over the grave, that it may be entirely obliterated. We spoke to the people, advising them to keep together and support the heir. They took this kindly; and in turn told us not to be alarmed, for they would not think of ascribing the death of Sebituane to us. He was decidedly the best specimen of a native chief I ever met. I was never so much grieved by the loss of a black man before; and it was impossible not to follow him in thought into the other world, and to realise somewhat of the feelings of those who pray for the dead. The dark question of what is to become of such as he, must, however, be left where we find it. The "Judge of all the earth will do right."

At Sebituane's death the chieftainship devolved on a daughter named Ma-mochisane, who was living twelve days to the north, at Naliele. She gave us perfect liberty to visit any part of the country we chose, and Mr. Oswell and myself proceeded one hundred and thirty miles to the north-east, to Sesheke. In the end of June, 1851, we were rewarded by the discovery of the Zambesi, in the centre of the continent. This was a most important point, for that river was not

previously known to exist there at all. The Portuguese maps all represent it as rising far to the east of where we now were. We saw it at the end of the dry season, and yet there was a breadth of from three hundred to six hundred yards of deep flowing water. At the period of its annual inundation it rises twenty feet in perpendicular height, and floods fifteen or twenty miles of lands adjacent to its banks.

The country over which we had travelled from the Chobe was perfectly flat, except where large ant-hills formed mounds a few feet high. These are generally covered with wild date-trees and palmyras, and in some parts there are forests of mimosæ and mopane. The tract between the Chobe and Zambesi is occasionally flooded, and there are large patches of swamps lying either near the former or on its banks. The Makololo lived among these swamps for the sake of the protection the deep reedy rivers afforded them against their enemies. There was no suitable place for a settlement. The healthy districts were defenceless, and the safe localities were so deleterious to human life, that the original Basutos had nearly all been cut off by the fever. I therefore feared to subject my family to the scourge.

As we were the first white men the inhabitants had ever seen, we were visited by prodigious numbers. One of our visitors appeared in a gaudy dressing-gown of printed calico; others had garments of printed cotton, and of blue, green, and red baize. These had been purchased, in exchange for boys, from a tribe called Mambári, which is situated near Bihé, and who only began the slave-trade with the Makololo in 1850. They had a number of old Portuguese guns, which Sebituane thought would be most important in any future invasion of Matebele. He offered to buy them with cattle or ivory, but their owners refused everything except boys about fourteen years of age. The desire to possess the guns at length prevailed, and eight were obtained in exchange for as many boys. These were not Makololo children, but captives of the black races they had conquered. I have never known in Africa an instance of a parent selling his own offspring. The Makololo afterwards made a foray, in conjunction with the Mambari, against some tribes to the eastward. The Mambari were to have the captives, and the Makololo were to have the

cattle. At least two hundred slaves were carried off that year. In the course of the raid the Makololo met some Arabs from Zanzibar, who presented them with three English muskets, and received about thirty captives in return.

As there was no hope of the Boers allowing the peaceable instruction of the natives at Kolobeng, I resolved to save my family from exposure to this unhealthy region and send them to England, while I returned to explore the country in search of a healthy district that might prove a centre of civilization, and open up the interior by a path to either the east or west coast. Our route to Cape Town, in April, 1852, carried us through the centre of the colony during the twentieth month of a Caffre war; and those who periodically pay enormous sums for these inglorious affairs may like to know that our little unprotected party could travel with as little danger as if we had been in England. Where does the money go, and who has been benefited by the blood and treasure expended?

My visit to Cape Town was the first I had paid to the scenes of civilization during eleven years. The Astronomer Royal, Mr. Maclear, enabled me recall the little astronomical knowledge which the engrossing nature of missionary duties had effaced from my mind, and he taught me much more, which was of great assistance in enabling me to lay down geographical positions in my subsequent route.

CHAPTER V.

LAST JOURNEY FROM CAPE TOWN.—THE KALAHARI: ITS PLANTS AND ANIMALS. GRIQUAS AND BECHUANAS.

HAVING sent my family home to England, I again started on my travels in the beginning of June 1852. This journey extended from the southern extremity of the continent to St. Paul de Loando, the capital of Angola, on the west coast, and thence across South Central Africa in an oblique direction to Kilimane (Quilimane) in Eastern Africa. I proceeded in the usual conveyance of the country, the heavy lumbering Cape waggon drawn by ten oxen, and was accompanied by

two Christian Bechuanas from Kuruman,—than whom I never saw better servants,—by two Bakwain men, and two young girls, who, having come as nurses with our children to the Cape, were returning to their home at Kolobeng. Waggon-travelling in Africa has been so often described, that I need say no more than that it is a prolonged system of picnicking, excellent for the health, and agreeable to those who are not over fastidious about trifles, and who delight in the open air.

Our route to the north lay near the centre of the cone-shaped mass of land which constitutes the promontory of the Cape. If we suppose this cone to be divided into three zones or longitudinal bands, we find each presenting distinct peculiarities of climate, physical appearance, and population. The eastern zone is often furnished with mountains, well wooded with evergreen succulent trees, on which neither fire nor droughts can have the smallest effect (*Strelitzia*, *Zamia horrida*, *Portulacca afra*, *Schotia speciosa*, *Euphorbias*, and *Aloe arborescens*). Its seaboard gorges are clad with gigantic timber, and it is comparatively well watered with streams and rivers. The supply of rain is considerable, and the inhabitants (Caffres or Zulus) are tall, muscular, and well made; shrewd, energetic, and brave; and altogether merit the character given them by military authorities, of being "magnificent savages." Their splendid physical development and form of skull show that, but for the black skin and woolly hair, they would take rank among the foremost Europeans.

The next division, which embraces the centre of the continent, consists for the most part of extensive, slightly undulating plains. There are few springs, and still fewer streams. Rain is far from abundant, and droughts may be expected every few years. Without artificial irrigation no European grain can be raised, and the inhabitants (Bechuanas), are inferior to the Caffres in physical development.

The western division is still more level than the middle, being only rugged near the coast. It includes the great plain of the Kalahari Desert.

The probable reason why so little rain falls on this extensive tract is that the prevailing winds of most of the interior are easterly, and the water taken up by the atmosphere from the Indian Ocean is deposited on the eastern hilly slope. It is a

familiar law of science that the greater the temperature of the air the more moisture it will hold in an invisible form. When the drifting atmosphere arrives at the Kalahari, and comes in contact with the hot currents from the Desert, its capacity for retaining what remains of humidity is increased. Thus the vapour can never be condensed into raindrops. That the Kalahari should nevertheless be clothed with vegetation may be explained by the geological formation of the country. A rim of ancient rocks surrounds a great central valley. Though vast areas have been so distorted that but little trace of this formation appears externally, it is highly probable that the basin-shape prevails over large districts; and as the strata on the slopes, where most of the rain falls, dip in towards the centre, the water trickles along beneath the surface till it reaches the Kalahari plains.

The route we followed at this time ran along the middle, or skirted the western zone, until we reached the latitude of Lake Ngami, where a totally different country begins. We passed through districts inhabited by the descendants of Dutch and French refugees who had fled from religious persecution. Those living near the capital differ but little from the middle classes in English counties, and are distinguished by public spirit and general intelligence; while those situated far from the centres of civilization are less informed, but are a body of frugal, industrious, and hospitable peasantry. A most efficient system of public instruction was established by Governor Sir George Napier, on a plan drawn up in a great measure by Sir John Herschel. The system had to contend with less sectarian rancour than elsewhere. Until quite recently indeed, that spirit, except in a mild form, was unknown.

Population among the Boers increases rapidly; they marry soon, and continue to have children late. Orphans are never allowed to remain long destitute; and instances are frequent in which a tender-hearted farmer has adopted a fatherless child, and when it came of age has portioned it as his own. Two centuries of the South African climate have not had much effect upon the physical condition of the Boers. They are a shade darker, or rather ruddier, than ordinary whites, and are never cadaverous-looking, as descendants of Europeans are said to be elsewhere. There is a tendency to the development

of steatopyga, so characteristic of Arabs and other African tribes.

The farms of the Boers usually consist of a small patch of cultivated land in the midst of some miles of pasturage. They are thus less an agricultural than a pastoral people. Each farm must have its fountain; and where no supply of water exists the lands are unsaleable. An acre in England is generally worth more than a square mile in Africa; but the value of colonial farms increases year by year, and they are capable of vast improvement. If dams and tanks were formed, greater fruitfulness would certainly follow.

As cattle and sheep farmers the colonists are very successful. Larger quantities of wool are produced every year. But this pastoral system requires a rapid extension of ground, and the farmers are gradually spreading to the north. The movement proves prejudicial to the country behind, by drawing off the labour which would otherwise be directed to the improvement of the territory already occupied. Encroachment upon the interior actually diminishes cultivation, for less land is put under the plough than was before subjected to the native hoe. The Basutos and Zulus, or Caffres of Natal, undersell our farmers wherever they have a fair field and no favour.

The parts of the colony through which we passed were of sterile aspect; and as the present winter had been preceded by a severe drought, many farmers had lost two-thirds of their stock. The landscape was uninviting; the hills, destitute of trees, were of a dark-brown colour, and the scanty vegetation on the plains made me feel that they were more deserving of the name of Desert than the Kalahari. The soil is said to have been originally covered with a coating of grass, which has disappeared with the antelopes which fed upon it, and a crop of mesembryanthemums and crassulas occupies its place. It is curious to observe how organizations the most dissimilar depend on each other for their perpetuation. Here the first grasses owed their dissemination to the animals, which scattered the seeds. When, by the death of the antelopes, no fresh sowing was made, the African droughts proved too much for the crop. But another family of plants stood ready to prevent the sterility which must otherwise have ensued. The mesembryanthemums possess seed-vessels which remain firmly

shut while the soil is dry, and thus the vegetative power is preserved during the highest heat of the torrid sun. When rain falls the seed-vessel opens and sheds its contents just when there is the greatest probability of their growth. In other plants it is *heat* and *drought* which cause the seed-vessels to burst and scatter their progeny over the soil.

One of this family is edible (*Mesembryanthemum edule*); another possesses a tuberous root, which may be eaten raw; and all are furnished with thick fleshy leaves, having pores capable of imbibing and retaining moisture. If a leaf is broken during a period of the greatest drought, it shows abundant sap. The plants of this family are found much further north, but the excess of grass prevents them from making any show. There, however, they are, ready to fill up any gap which may occur in the prevailing vegetation. It is a reserve supply which would answer the same end as a fresh act of creative power.

Another of the family, *M. turbiniforme*, is so coloured as to blend in hue with the soil and stones around it. A *gryllus* of the same colour feeds on it, and is compensated for its deficiency in the power of motion by thus eluding the notice of birds. The continuation of the species may be presumed in the case of the insect to be the end in view, and with the plant the same device is perhaps adopted, that by hiding it from animals at one period its extensive propagation may serve at another to sustain them.

As this plant is better adapted for sheep and goats in a dry country than grass, the Boers imitate the process by which graminivorous antelopes have disseminated the seeds of the herbage on which they feed. A few waggon-loads of mesembryanthemum-plants, in seed, are given to the sheep. The seeds by this means get dropped over the grazing-grounds. While noticing a clever imitation of one process in nature by the Cape farmers, I venture to suggest another for their consideration. The country beyond south lat. 18° abounds in three varieties of grape-bearing vines; and one of these is furnished with oblong tubers, which are less affected than the common root by the scorching sun. This increase of power to withstand the effects of climate might prove of value in the more arid parts of the Cape colony, grapes being an excellent restorative in the debility produced by heat, and, by

engrafting, a kind might be secured better adapted to the country than the foreign vines at present cultivated. The Americans find that some of their native vines yield wines superior to those made from the very best plants imported from France and Portugal.

The slow pace at which we wound our way through the colony made almost any subject interesting. The attention is attracted to the names of different places, because they indicate the former existence of buffaloes, elands, and elephants, now to be found only hundreds of miles beyond. A few blesbucks (*Antilope pygarga*), gnus, bluebucks (*A. cerulea*), steinbucks, and the ostrich (*Struthio camelus*), continue, like the Bushmen, to maintain a precarious existence. The elephant, the most sagacious of animals, flees from the sound of firearms first; the gnu and ostrich, the most wary and the most stupid, vanish last. The earliest emigrants found the Hottentots in possession of prodigious herds of fine cattle, but no horses, asses, or camels. The natives universally believe that they travelled hitherward from the north-north-east. They brought cattle, sheep, goats, and dogs: why not the horse, the delight of savage hordes?

The tsetse would not prove a barrier after its well-defined habitat was known, but the disease passing under the term of horse-sickness (*peripneumonia*) exists in such virulence over nearly seven degrees of latitude that it would be certainly fatal. It is only by great care in stabling that the horse can be kept anywhere between 20° and 27° S. from December to April. One attack seems to secure immunity from a second. Cattle are also subject to the disorder at intervals of a few, or sometimes many, years; but it never makes a clean sweep of a herd, as it would do of a troop of fifty horses. This appears to be the reason why the Hottentots did not succeed in bringing the horse to the south with their cattle, sheep, and goats.

The disease attacks wild animals. During our residence at Chonuane numerous tolos, or koodoos, were attracted to the gardens of the Bakwains, which were abandoned at the period of harvest because there was no prospect of the corn (*Holcus sorghum*) bearing that year. The koodoo is fond of the green stalks of this kind of millet, and free feeding produced the fat-

ness favourable for the development of the disease. No fewer than twenty-five died on the hill opposite our house. Great numbers of gnus and zebras perished from the same cause, but the mortality produced no sensible diminution in the quantity of the game.

When the flesh of animals that have died of peripneumonia is eaten, it causes a malignant carbuncle; and when this appears over any important organ, it proves rapidly fatal. It is more especially dangerous over the pit of the stomach. The effects of the poison have been experienced by missionaries who had partaken of food not visibly affected by the disease. Many of the Bakwains who persisted in devouring the flesh of animals which had perished from the distemper died in consequence. The virus is destroyed neither by boiling nor roasting. This fact, of which we have had innumerable examples, shows the superiority of experiments on a large scale to those of physiologists in the laboratory, for a well-known physician of Paris, after careful investigation, considered that the virus was completely neutralized by boiling.

Before we reached the Orange river we saw the last portion of a migration of springbucks (*Gazella euchore*, or tsépe). They come from the great Kalahari Desert, and, when first they cross the colonial boundary, are said to exceed forty thousand in number. I cannot venture on an estimate, for they spread over a vast expanse of country, and make a quivering motion as they graze, and toss their graceful horns. They live chiefly on grass; and as they come from the north about the time when grass most abounds, it cannot be want of food that prompts the movement. Nor is it want of water, for this antelope is one of the most abstemious in that respect. The cause of the migration would seem to be their preference for places where they can watch the approach of a foe. When oxen are taken into a country of high grass, their sense of danger is increased by the power of concealment which the cover affords, and they will often start off in terror at the ill-defined outlines of each other. The springbuck possesses this feeling in an intense degree, and, being eminently gregarious, gets uneasy as the grass of the Kalahari grows tall. The vegetation being scantier in the more arid south, the herds turn in that direction. As they advance and increase in numbers,

the pasturage gets so scarce, that in order to subsist they are at last obliged to cross the Orange river, and become the pest of the sheep-farmer in a country which contains little of their favourite food. If they light on a field of wheat in their way, an army of locusts could not make a cleaner sweep of the whole. They have never been seen returning. Many perish from want, and the rest become scattered over the colony. Notwithstanding their constant destruction by firearms, they will probably continue long to hold their place. The Bakalahari take advantage of the love of the springbuck for an uninterrupted view and burn off large patches of grass, both to attract the game by the fresh herbage which springs up, and to form bare spots for them to range over.

On crossing the Orange river we come into the independent territory inhabited by Griquas and Bechuanas. By Griquas is meant any mixed race sprung from natives and Europeans. These were of Dutch extraction, through association with Hottentots and Bushwomen. Half-castes of the first generation consider themselves superior to those of the second, and all possess in some degree the characteristics of both parents. They were governed for many years by an elected chief named Waterboer, who proved a most efficient guard of our north-west boundary. He drove back a formidable force of marauding Mantatees that threatened to invade the colony, and, except for his firm and brave rule, there is every probability that the north-west would have given the colonists as much trouble as the eastern frontier. Large numbers among the original Griquas had as little scruple about robbing farmers of cattle as the Caffres, but, on his election to the chieftainship, he declared *that no marauding should be allowed.* Some of his principal men disregarded the injunction and plundered certain villages of Corannas. He seized six of the ringleaders, summoned his council, and tried, condemned, and publicly executed them all. This produced an insurrection, and the insurgents twice attacked his capital, Griqua Town. He defeated both attempts, and during his long reign of thirty years no plundering expedition ever issued from his territory.

Ten years after he was firmly established in power, he entered into a treaty with the Colonial Government; and,

during the twenty years which followed, not a single charge was ever brought against either him or his people. Sir George Cathcart not only abrogated the treaty with the Griquas, but prohibited their purchasing gunpowder for their own defence. An exception was made in favour of the Transvaal Boers and Caffres, our avowed enemies, while the Bechuanas and Griquas, our constant allies, are debarred from obtaining a single ounce. Such an error could not have been committed by a man of local knowledge and experience, and such instances of confounding friend and foe, under the idea of promoting colonial interests, will probably lead the Cape community to assert the right of choosing their own governors.

Many hundreds of both Griquas and Bechuanas have become Christians and partially civilized through the teaching of English missionaries. My first impression was that the accounts of the effect which the Gospel had had upon them were too highly coloured. When, however, I passed on to true heathens in countries beyond the sphere of missionary influence, I came to the conclusion that the change produced was unquestionably great.

The Griquas and Bechuanas were in former times clad much like the Caffres, if the expression may be used when there was scarcely any clothing at all. A bunch of leather strings about eighteen inches long hung from the lady's waist in front, and a prepared skin of a sheep or antelope covered the shoulders. The breast and abdomen were left bare. The men wore a patch of apron about as big as the crown of a hat, and a mantle exactly like that of the women. To protect the skin from the sun by day and from the cold by night, they smeared themselves with a compound of fat and ochre: the head was anointed with pounded blue mica schist mixed with grease. The particles of shining mica, as they fell on the body and on strings of beads and brass rings, were considered highly ornamental. They now come to church in decent clothing. Sunday is well observed, and, even in localities where no missionary lives, religious meetings are regularly held, and children and adults taught to read, by the more advanced of their fellow-countrymen.

It is a proof of the success of the Bechuana Mission that when we came back from the interior we always felt on

reaching Kuruman that we had returned to civilized life. The people are more stingy and covetous than our poor at home; but in many respects the two are exactly alike. On asking an intelligent chief what he thought of the converts, he replied, "You white men have no idea how wicked we are; we know each other better than you; some feign belief to ingratiate themselves with the missionaries; some profess Christianity because they like the new system, which gives so much more importance to the poor, and desire that the old system may pass away; and the rest—a pretty large number —profess, because they are really true believers." This account is very nearly correct.

There is little prospect of their country ever producing much material for commerce with the exception of wool. At present the chief article of trade is karosses or mantles. Ivory is next in importance, but the quantity cannot be great now that the powder for shooting elephants is debarred entrance into the country. A few skins and horns, and some cattle, make up the remainder of the exports. English goods, sugar, tea, and coffee are the commodities received in exchange. The natives soon become extremely fond of coffee. The acmé of respectability among the Bechuanas is the possession of cattle and a waggon; and though the waggon requires frequent repairs, not a man among them has ever learnt to mend it. Forges, tools, and teachers have been at their service, but, beyond putting together a camp-stool they have made no effort to acquire a knowledge of the trades. They will watch a missionary at work until they understand whether a tire is well welded, and, having pronounced upon its merits with great emphasis, their ambition is satisfied. It was in vain I tried to indoctrinate them with the idea that criticism did not imply any superiority over the workman, or even an equality with him.

CHAPTER VI.

KURUMAN.—MISSIONARIES: THEIR DUTIES AND LABOURS.—OUTRAGE OF BOERS.—RETALIATION.—NOTICES OF BAKWAINS.

THE permanence of the Kuruman station depends entirely on the fine ever-flowing fountain of that name. The water usually issues at a temperature of 72° Fahr., and probably comes from the old silurian schists, which formed the bottom of the great primæval valley of the continent. I could not detect any diminution in the supply during my residence in the country; but when Mr. Moffat first attempted a settlement here, thirty-five years ago, he made a dam six or seven miles off, which is now never reached by a single drop of the fountain water. There are places fourteen miles below the Kuruman gardens, which are pointed out as being frequented by hippopotami within the memory of living people, and having pools sufficient to drown both men and cattle. This diminution of the water must be ascribed to the general desiccation of the country, though much of what formerly passed onwards is consumed by the irrigation carried on at the mission station along both banks of the stream.

The Kuruman district presents evidence that this dry southern region was at no distant date as well watered as the country north of Lake Ngami is at present. Ancient river-beds abound, and the very eyes of fountains long since dried up may be seen, in which the flow of centuries has worn these orifices from a slit to an oval form. On their sides are the tufa, which was abundantly deposited from the primitive waters. Many of these fountains run no longer, because the outlet is now too high, or because the elevation of the western side of the country lifts the land away from the water-supply below. If a cutting is made from a lower level to the springs they gush forth in a perennial stream. Several of these ancient fountains have been resuscitated by the Bechuanas near Kuruman. Their hydraulic works are not always remarkable for the intelligence displayed in them. They will

labour for months at deep cuttings, which, having once begun, they feel bound in honour to persevere in, though told by a missionary that they can never force water to run up hill.

The Boers in this region make long and deep canals from lower levels up to spots which afford no other indication that water exists beneath than a few rushes and a coarse reddish-coloured grass. These grow in a hollow, which anciently must have been the eye of a fountain, but is now filled up with soft tufa. In other instances rushes growing on a long sandy ridge a foot or two in height, instead of in a furrow, is the sign of the water which lurks below. A deep transverse cutting made through the ridge is rewarded by a running stream. The ground over the water is raised above the surrounding level by the dust and sand which get blown against the rushes. The moisture which rises at night fixes the particles securely among the roots, and a height instead of a hollow is the result.

The aspect of this part of the country during most of the year is of a light yellow colour; but for some months during the rainy season a pleasant green predominates over the yellow. Ranges of hills appear in the west, but east of them we find hundreds of miles of grass-covered plains. Large patches of these flats are covered with white calcareous tufa, and the vegetation upon it consists of fine grass growing in tufts among low bushes of the "wait-a-bit" thorn (*Acacia detinens*), with its annoying fish-hook-like spines. Where the soil consists of yellow sand tall coarse grasses grow among berry-yielding bushes, named moretloa (*Grewia flava*) and mohatla (*Tarchonanthus*), the last of which has sufficient aromatic resinous matter to burn brightly, though perfectly green. In more sheltered spots we come on clumps of the white-thorned mimosa (*Acacia horrida*, and *A. atomiphylla*), great abundance of wild sage (*Salvia Africana*), and various leguminosæ, ixias, and large-flowering bulbs. The *Amaryllis toxicaria* and *A. Brunsvigia multiflora* (the former a poisonous bulb) yield in the decayed lamellæ a soft silky down, which is a good material for stuffing mattresses.

In some few parts of the country the remains of ancient forests of wild olive-trees (*Olea similis*), and of the camel-thorn (*Acacia giraffæ*), are still to be met with; but when the camel-

thorns are felled in the proximity of a Bechuana village no successors spring up. It is probable that this is the tree of which the Ark of the Covenant and the Tabernacle were constructed, as it is reported to be found on the spot where the Israelites were at the time these were made. It is an imperishable wood, while that which is usually supposed to have been the "shittim" (*Acacia nilotica*) wants beauty, and soon decays.

In company with the camel-thorn we find a curious plant, named ngotuané, which bears a profusion of fine yellow flowers, and which have so strong a scent that they perfume the air. Nearly all the other plants in the dry parts of Africa have either no smell or else emit a disagreeable odour. The ngotuane contains an active poison, and a mere taste of it causes a burning sensation in the throat. A French gentleman, having drunk a mouthful or two of an infusion of its flowers as tea, was rendered nearly powerless. The poison is neutralized when mixed with vinegar. A single glassful of this antidote proved with the Frenchman a complete and instantaneous cure. As soon as he had taken it he felt, he said, as if electricity had run along his nerves. The usual proximity of the ngotuane to the camel-thorn may be accounted for by the *probability* that the giraffe, which feeds on the tree, makes use of the plant as a medicine.

During the period of my visit at Kuruman, Mr. Moffat, who has been a missionary in Africa upwards of forty years, was engaged in carrying the Bible, in the language of the Bechuanas, through the press at his station. As he was the first to reduce their speech—which is called Sichuana—to a written form, and has had his attention directed to the study for thirty years, he may be supposed to be better adapted for the task than any man living. The comprehensive meaning of the terms in this tongue may be inferred from the fact that there are fewer words in the Pentateuch in Mr. Moffat's translation than in the Greek Septuagint, and far less than in our English version. It is fortunate that the task has been completed before the language became adulterated with half-uttered foreign words, and while those who have heard the eloquence of the native assemblies are still living. The young who are brought up in our schools know less of the tongue than the

missionaries. The Sichuana vocabulary is extraordinarily copious. Mr. Moffat never spends a week at his work without discovering new words. Yet a person who acted as interpreter to Sir George Cathcart told him that the language of the Basutos was not capable of expressing the substance of a chief's diplomatic paper, though the chief who sent it could have worded it again off-hand in three or four different ways. The interpreter could scarcely have done as much in English. The Sichuana is, however, so simple in its construction, that its copiousness by no means requires the explanation that the people have fallen from a former state of civilization. Language seems to be an attribute of the human mind. Since the vocabulary is so extensive, the phenomenon of any man who, after a few months or years' study of a native tongue, cackles forth a torrent of words, may well be wondered at. Though I have had as much intercourse with the purest idiom as most Englishmen, I am always obliged to utter an important statement very slowly, and repeat it afterwards, lest the foreign accent, distinctly perceptible in all Europeans, should render the same unintelligible. In this I follow the example of the Bechuana orators, who, on matters of moment, always speak deliberately, and with reiteration. Both rich and poor talk their language correctly; there is no vulgar style. Children have a *patois* of their own, and use many words in their play which men would scorn to employ. The Bamapela have adopted a click into their dialect, and a large infusion of the ringing ñ, which seems to have been introduced for the purpose of preventing others from understanding them.

It would be no cause for congratulation if the Bechuana Bible was likely to meet the fate of Elliot's Choctaw version, in which we have God's word in a language which no tongue can articulate, and no mortal can understand. A better destiny seems in store for Mr. Moffat's labours, for the Sichuana has been introduced into the new country beyond Lake Ngami, where it is the court language, and will carry a stranger through a district larger than France. The Bechuanas in addition probably possess that imperishable property which forms so remarkable a feature in the entire African race.

When converts are made from heathenism it becomes an

interesting question whether their faith has the elements of permanence, or is only an exotic too tender for self-propagation when the fostering care of the foreign cultivators is withdrawn. If habits of self-reliance are not encouraged the most promising converts are apt to become like spoiled children. In Madagascar a few Christians were left with no other aid than their Bibles; and though exposed to persecution, and even death itself, they increased tenfold in numbers, and are, if possible, more decided believers than when, by an edict of the queen of that island, the missionaries ceased their teaching. In South Africa such an experiment could not be made, for a variety of Christian sects have followed the successful footsteps of the London Missionary Society, and if any converts are thrown on their own resources they are eagerly adopted by one of these denominations. The people are in this way more likely to be injured than trained to the manly Christian virtues. Another misfortune is that the Missionary Societies consider the Cape Colony itself as the proper sphere for their operations, although, in addition to a well-organised Dutch Established Church, and schools for secular instruction, maintained by Government, in every village of any extent, there are a number of other sects—Wesleyans, Episcopalians, Moravians—all labouring at the same good work. It is deeply to be regretted that so much zeal should be expended in a district where there is so little scope for success, to the neglect of the millions of unenlightened beings in the regions beyond. I would earnestly recommend all young missionaries to go at once to the real heathen.

When Sechele understood that we could no longer remain with him at Kolobeng, he sent his five children for instruction in all the knowledge of the white men to Mr. Moffat, at Kuruman, who liberally received the young folks and their attendants into his family.

Having been detained at Kuruman about a fortnight by the breaking of a waggon-wheel, I was providentially prevented from being present at the attack of the Boers on the Bakwains. The news was brought by Masebele, the wife of Sechele, who had herself been hidden in a cleft of a rock, over which a number of their assailants were firing. She brought Mr. Moffat a letter, which tells its own tale:—

"Friend of my heart's love, and of all the confidence of my heart, I am Sechele; I am undone by the Boers, who attacked me, though I had no guilt with them. They demanded that I should be in their kingdom, and I refused; they demanded that I should prevent the English and Griquas from passing (northwards). I replied, These are my friends, and I can prevent no one (of them). They came on Saturday, and I besought them not to fight on Sunday, and they assented. They began on Monday morning at twilight, and fired with all their might, and burned the town with fire, and scattered us. They killed sixty of my people, and captured women, and children, and men. And the mother of Baleriling (a former wife of Sechele) they also took prisoner. They took all the cattle and all the goods of the Bakwains; and the house of Livingstone they plundered, taking away all his goods. The number of waggons they had was eighty-five, and a cannon; and after they had stolen my own waggon and that of Macabe, then the number of their waggons (counting the cannon as one) was eighty-eight. All the goods of the hunters (certain English gentlemen hunting and exploring in the north) were burned in the town; and of the Boers were killed twenty-eight. Yes, my beloved friend, now my wife goes to see the children, and Kobus Hae will convey her to you.

"I am, SECHELE,

"The Son of Mochoasele."

This statement is in exact accordance with the account given by some of the Boers themselves to the public colonial papers. The only cause they alleged was that "Sechele was getting too saucy." Their demand that he should be subject to them and prevent the English traders passing northwards was kept out of view. Soon after Pretorius had despatched this marauding party against Kolobeng he was called away to the Great Tribunal. His policy is justified by the Boers from the instructions given to the Jewish warriors in Deuteronomy xx. 10-14. Hence the obituary notice of him ended with the words, "Blessed are the dead who die in the Lord."

The report of this outrage on the Bakwains, coupled with the denunciations against myself for having, as it was asserted, taught them to kill Boers, produced such a panic in the

country, that I could not prevail upon a single servant to accompany me to the north. Loud vows of vengeance were uttered against me by the Boers, and threats of instant pursuit by a large party on horseback, should I dare to go into or beyond their country. After I had been detained for months at Kuruman from inability to procure waggon-drivers, I at last found three servants who, in spite of imprecations, were willing to risk the journey. A man of colour, named George Fleming, who wished to establish a trade with the Makololo, had managed to get a similar number. To be sure they were all the worst possible specimens of those who imbibe the vices without the virtues of Europeans, but we had no choice, and were glad to get away on any terms.

We left Kuruman on the 20th of November. When we reached Motito, forty miles off, we met Sechele, on his way, as he said, "to the Queen of England." Two of his children, and their mother, a former wife, were among the captives seized by the Boers; and as he had a strong belief in English justice, he was convinced that he should obtain redress from our sovereign. He employed all his eloquence to induce me to accompany him, and I in turn endeavoured to dissuade him from his project. "Will the Queen not listen to me," he inquired, "supposing I should reach her?" I replied, "I believe she would listen, but the difficulty is to get to her." "Well," said he, "I shall reach her." When he got to Bloemfontein he found the English army just returning from a battle with the Basutos, in which both parties claimed the victory, and both were glad that a second engagement was not tried. Our officers invited Sechele to dine with them, heard his story, and collected a handsome sum of money to enable him to pursue his journey to England. He proceeded as far as the Cape, when, his resources being expended, he was obliged to go back to his own country, one thousand miles distant, without accomplishing his intention. On his return he adopted the punishment he had witnessed in the colony, of making criminals work on the public roads. He has since, I am informed, become himself the missionary to his own people. He is very dark; and his subjects swear by "Black Sechele." He has great intelligence, reads well, and is a fluent speaker. Such is his influence that numbers of the

tribes, formerly living under the Boers, have taken refuge under his sway, and he is now greater in power than before the attack on Kolobeng.

Having parted with Sechele, we skirted along the Kalahari Desert, and sometimes went within its borders, giving the Boers a wide berth. A larger fall of rain than usual had occurred in 1852, which completed a cycle of eleven or twelve years, when the same phenomenon is reported to have happened on three occasions. An unusually large crop of melons had appeared in consequence. We had the pleasure of meeting with Mr. J. Macabe returning from Lake Ngami, which he had reached by going right across the Desert from a point a little to the south of Kolobeng. His cattle had subsisted on the water-melons for twenty-one days; and when they reached water did not seem to care much about it. Before the lake was discovered Macabe wrote a letter in one of the Cape papers recommending a certain route as likely to lead to it. The Transvaal Boers fined him 500 dollars for writing about "onze velt," *our* country, and imprisoned him till the fine was paid. I now learned from his own lips that this story was true. His companion, Mahar, was mistaken by a tribe of Barolongs for a Boer, and shot as he approached their village. When Macabe came up and explained that the victim was an Englishman, they expressed the utmost regret, and helped to bury him. We afterwards heard that there had been some fighting between these Barolongs and the Boers, and that there had been capturing of cattle on both sides. If the report was true, it was the first time that I ever knew of cattle being taken by Bechuanas. This was a Caffre war in stage the second; the third stage is when both sides are equally well armed and afraid of each other; the fourth, when the English take up a quarrel not their own, and the Boers slip out of the fray.

During the dry seasons which succeed our winter and precede our rains, a hot wind occasionally blows over the Desert from north to south. It feels as if it came from an oven, and seldom lasts longer than three days at a time. It resembles in its effects the harmattan of the north of Africa, and at the time the missionaries first settled in the country, thirty-five years ago, it came loaded with fine reddish-coloured

sand. It is so devoid of moisture as to cause the wood of the best seasoned English boxes and furniture to shrink. The air is full of electricity, and a bunch of ostrich-feathers held for a few seconds against the wind becomes as strongly charged as if attached to a powerful electrical machine. Even at other times the movement of a native in his kaross will often produce a stream of small sparks. The first time I noticed this appearance was while a chief was travelling with me, when the fur of his mantle, being slightly chafed by the movement of the waggon, assumed a luminous appearance. I rubbed it smartly with my hand, and it gave out bright sparks, which were accompanied with a sharp crackling sound. "Don't you see this?" said I. "The white men did not show us this," he replied; "we had it long before white men came into the country, we and our forefathers of old." Otto von Guerrike is said to have been the first that ever observed the phenomenon in Europe. It had been familiar to the Bechuanas for ages, but nothing came of it. The human mind has here remained stagnant in reference to the physical operations of the universe. No science has been developed, and few questions are discussed except those which have connexion with the wants of the stomach.

Large flocks of swifts (*Cypselus apus*) were observed flying over the plains north of Kuruman. I counted a stream of them which must have numbered upwards of four thousand. Only a few of these birds breed in this country. I have often observed that there was no appearance of pairing, no chasing of each other, nor any playing together. There are several other birds which continue in flocks, and move about during the breeding season, which happens in this country between the cold and hot weather; for cold acts here like the genial warmth of spring in less sultry climes. Are these the migratory birds of Europe, which return there to breed and rear their young?

On the 31st December, 1852, we reached the town of Sechele, which is called Litubaruba from the part of the range on which it is situatad. Near the village there exists a cave named Lepelole, which no one dared to enter, for it was the common belief that it was the habitation of the Deity. I proposed to explore it. The old men said that every one who

went in remained there for ever, and added, "If the teacher is so mad as to kill himself, let him do so alone, we shall not be to blame." The declaration of Sechele, that he would follow where I led, produced the greatest consternation. There was little enough to reward curiosity. An entrance about ten feet square became narrowed into two water-worn branches, ending in round orifices through which the water once flowed. The only inhabitants it seems ever to have had were baboons.

I never saw the Bakwains looking so haggard and lean as at this time. Most of their cattle had been swept away by the Boers, and all their corn, clothing, and furniture had been consumed in the flames. They were now literally starving. Some young men having ventured to go to meet a party of Boers returning from hunting, the latter were terrified and ran off. The young men brought their waggons to Litubaruba, and the affrighted colonists conceived an idea that the Bakwains had commenced a guerilla war. The Boers sent four of their number to ask for peace! I was present and heard the condition: "Sechele's children must be restored to him." Strong bodies of armed Bakwains occupied every pass in the hills; and had not the four ambassadors promised much more than they performed, that day would have been their last. The commandant Scholz had taken the children of Sechele to be his own domestic slaves. I saw one of them returned to his mother. He had been allowed to roll into the fire, and there were three large unbound sores on his body. His mother and the women received him with floods of tears. I took down the names of some scores of boys and girls, many of whom I knew to be our scholars; but I could not comfort the weeping mothers with any hope of their return from captivity. The Boers know from experience that adults may as well be left alone, for escape is so easy in a wild country that no fugitive slave-law can come into operation. They therefore seize only the young, that they may forget their parents and remain in perpetual bondage.

The Bechuanas are universally much attached to children. A little child who toddles near a party of men while they are eating is sure to get a handful of the food. The parents take the name of the offspring, and often address them as Ma (mother),

or Ra (father). Mrs. Livingstone, after the birth of our eldest boy Robert, was always addressed as Ma-Robert.

I have examined several cases in which a grandmother has suckled a grandchild. Sina, of Kuruman, married when she was seventeen or eighteen, and had twins; Masina, her mother, after an interval of fifteen years since she suckled a child, applied one of them to her shrivelled breast, the milk flowed, and she was able to nurse the infant entirely. She was at this time at least forty years old. I have witnessed several other analogous cases. Is it not possible that the story in the 'Cloud of Witnesses,' of a man yielding milk when he put his child to his breast during the persecution in Scotland may have been literally true? As anatomists declare the structure of male and female breasts to be identical, there is nothing impossible in the alleged result. Indeed Baron Humboldt quotes an instance where the male gave forth milk.

In conversation with some of my friends I learned that Maleke, a chief of the Bakwains, had died from the bite of a mad dog. I never heard of another case, and could not satisfy myself that this was real hydrophobia. While I was at Mabotsa some dogs were affected by a disorder which led them to run about in an incoherent state; but I doubt whether it was anything but an affection of the brain. No animal took the complaint by inoculation from their teeth; and the prevailing idea that hydrophobia does not exist within the tropics appears to be correct.

The diseases of the Bakwains are few. There is no consumption or scrofula, and insanity and hydrocephalus are rare. Cancer and cholera are quite unknown. Small-pox and measles passed through the country about twenty years ago and committed great ravages; but though the former has since repeatedly broken out on the coast, neither malady has again travelled inland. Inoculation for the small-pox was common. In one village they seem to have selected the matter from a virulent case, for nearly all the inhabitants were swept off by the scourge in its malignant confluent form. In other parts the natives inoculated the forehead with some animal deposit. Where the Bakwains got the idea I cannot conceive. When they adopted the practice they had no intercourse whatever with the southern missionaries. They readily make use of the vaccine virus when it is brought within their reach.

A certain loathsome disease which decimates the North American Indians, and threatens extirpation to the South Sea islanders, dies out in the interior of Africa. The Bangwaketse, who brought it from the west coast, lost it when they came into their own land south-west of Kolobeng. It seems incapable of permanence in the centre of the country in persons of pure African blood. Among the Portuguese, Corannas, and Griquas of mixed breed it produces the same ravages as elsewhere. The virulence of the secondary symptoms, in all the cases that came under my care, seemed in exact proportion to the amount of European blood. Among the Barotse I found a disease called manassah, which closely resembles that of the *fœda mulier* of history.

Stone in the bladder and gravel are unknown, though the waters are often so strongly impregnated with sulphate of lime that kettles quickly become incrusted with the salt. Some of my patients, who were troubled with indigestion, believed that their stomachs had got into the same condition with their kettles. The immunity from calculi would appear to be one of the privileges of the Negro race, for seldom in the United States have the most famed lithotomists met with a case among them.

The most prevalent diseases are pneumonia, produced by sudden changes of temperature, and other inflammations, as of the bowels, stomach, and pleura, with rheumatism, and disease of the heart. These become most rare as the people adopt the European dress. Every year the period preceding the rains is marked by an epidemic. Sometimes it is general ophthalmia, resembling that which prevails in Egypt. At another time it is a kind of diarrhœa, which no medicine will cure until there is a fall of rain, when anything acts as a charm. Once the annual visitation was a disease which looked like pneumonia, but with the peculiar symptom of great pain in the seventh cervical process. The persons who died of it were in a comatose state for many hours or days. As no inspection of the body is allowed by these people, and the place of sepulture is carefully concealed, I had to rest satisfied with conjecture. Frequently the Bakwains buried their friends in the huts where they died, for fear the witches (Baloi) should disinter them and use some part of the corpse in their fiendish arts. Scarcely is the breath out of the body when it is hurried away

to be interred. An anteater's hole is often selected, to save the trouble of digging a grave. On two occasions while I was there the buried men returned home to their affrighted relatives. They had recovered while in their graves from prolonged swoons.

In ophthalmia the doctors apply the pungent smoke of certain roots to the eyes, the patient at the same time taking strong draughts of it up his nostrils. Two or three grains of nitrate of silver dissolved in an ounce of rain-water answered the end so much more effectually, that every morning the people came in crowds for the remedy. This solution is a good preventive of an acute attack if poured into the eyes as soon as the pain begins, and might prove valuable for travellers. The native practitioners also cup on the temples for the disorder. The skin is scarified, and the large end of a goat or antelope horn placed over the cuts. The edges of the horn are wetted with water to make it adhere more completely. At the small end a little hole is pierced, through which the air is sucked out till a vacuum is formed. The hole is then stopped up with wax, and the pressure of the atmosphere having been removed from the blood it flows out into the horn. The operation is well performed, though the doctor cannot always resist the temptation to join quackery with science, and occasionally separates the fibrine from the blood in a basin of water by his side, and pretends that he has extracted something pernicious. He thus explains the rationale of the cure, and the ocular demonstration is convincing to the patient.

Those doctors who have inherited their profession as an heirloom generally possess some valuable knowledge, the result of long observation. The rest are usually quacks. With the regular practitioners I always remained on the best terms, and refrained from appearing to doubt their skill in the presence of their patients. Any explanation in private was thankfully received, and wrong treatment readily changed for more rational methods. English drugs were eagerly accepted; and we always found medical knowledge an important aid in convincing the people that we were anxious for their welfare.

The surgical skill of the natives is at a low ebb. No one ever attempted to remove a tumour except by external application. A man had one on the nape of his neck as large

as a child's head. Some famous doctor attempted to dissolve it by kindling on it a little fire made of a few small pieces of medicinal roots. I removed this tumour, as I did an immense number of others, with perfect safety. They are chiefly of a fatty and fibrous kind. All the natives have the *vis medicatrix* in remarkable activity. Both men and women submit to an operation without wincing. The women pride themselves on their ability to bear pain. A mother will address her little girl, from whose foot a thorn is to be extracted, with "Now, Ma, you are a woman; a woman does not cry." A man scorns to shed tears. The son of an aged father was drowned in one of the deep wells in the Kalahari, while playing on its brink. The father uttered an exceedingly great and bitter cry, the only instance I ever met with of a man weeping in this country.

Their ideas on obstetrics are unscientific, and for a medical man to go near a woman at her confinement would appear to them more out of place than a female medical student would appear to us in the dissecting-room. A case of twins occurred in which the ointments of all the doctors of the town proved utterly unavailing. A few seconds of English art afforded relief, and the prejudice vanished at once. I reserved myself for the difficult cases; and had often the satisfaction of rendering great assistance to mothers in their hour of sorrow. The poor creatures are often placed in a little hut built for the purpose, and are left without any aid whatever. Umbilical hernia was frequent in consequence. They suffer less at their confinement than in civilised countries; perhaps from their treating it as a simple operation of nature, which requires no change except a feast of meat and abundance of fresh air. The husband on these occasions is bound to slaughter for his lady an ox, goat, or sheep, according to his means.

My knowledge of midwifery procured for me great fame in a department in which I could lay no claim to merit. A woman came a distance of one hundred miles to consult me in a complaint which seemed to have baffled the native doctors. A complete cure was the result, and some twelve months after she bore a son to her husband, who had previously reproached her for being barren. She sent me a handsome present, and proclaimed that I possessed a medicine

for the removal of sterility. The result was, that I was teased with applications from husbands and wives from all parts of the country. Some came upwards of two hundred miles to purchase the boon, and it was in vain for me to explain that I had prescribed for an entirely different complaint, whatever might have been the consequential effects of the case. The more I denied, the higher their offers rose; they would give any money for the "child medicine;" and it was really heart-rending to hear the earnest entreaty, and see the tearful eye, which spoke the intense desire for offspring. "I am getting old," a woman would say; "you see grey hairs here and there on my head, and I have no child; you know how Bechuana husbands cast their old wives away; what can I do? I have no child to bring water to me when I am sick," &c.

The whole of the country adjacent to the Desert, from Kuruman to Kolobeng, or Litubaruba, and beyond up to the latitude of Lake Ngami, is remarkable for the salubrity of its climate. Europeans whose constitutions have been impaired by an Indian residence, feel its restorative powers. The health and longevity of the missionaries have always been fair, though mission-work is not usually conducive to either. Cases have been known in which patients have come from the sea-side with complaints which closely resembled consumption; and they have recovered by the change of residence alone. The parts near the coast, where we have such favourable reports of the health of the British troops, are inferior for persons suffering from pulmonary complaints to any locality which is not subjected to the influence of sea-air.

Mr. Oswell thought the climate much superior to that of Peru, and, were it not for the great expense of such a trip, I should have no hesitation in recommending the borders of the Kalahari Desert as admirably suited for pulmonary complaints. It is the complete antipodes of our raw English atmosphere. The winter, which begins in May and ends in August, is perfectly dry. Not a drop of rain falls during that period, and damp and cold are never combined. During many months there is scarcely any dew. However hot the day might have been at Kolobeng,—and the thermometer sometimes rose to 96° in the coolest part of our house,—yet the

atmosphere never had that steamy feeling and those debilitating effects which prevail in India and on the coast of Africa itself. Nothing can exceed the balminess of the evenings and mornings throughout the year. You wish for an increase neither of cold nor heat.

CHAPTER VII.

DISEASES OF ANIMALS.—THE LION.—SERPENTS.—NATIVE CUSTOMS. BAMANGWATO HILLS.—THE OSTRICH.

HAVING remained five days with the wretched Bakwains, we prepared to depart on the 15th January, 1853. Several dogs had taken up their residence at the water. No one would own them; it was plain they had

"Held o'er the dead their carnival"

after the slaughter committed by the Boers, and hence the disgust with which they were viewed.

On our way from Khopong, along the ancient river-bed which forms the pathway to Boatlanama, I found a species of cactus. I had seen only two before in the country,—one in the colony with a bright red flower, and another at Lake Ngami, the flower of which was liver-coloured. The present specimen was not in bloom.

On the 21st January we reached the wells of Boatlanama, and found them for the first time empty. Lopepe, where I had formerly seen a stream running from a large reedy pool, was also dry. We pushed on for the delicious waters of Mashüe. In travelling through this region the olfactory nerves are frequently excited by a strong disagreable odour, which is caused by a large jet-black ant named "Leshónya." It is nearly an inch in length, and emits a pungent smell when alarmed, in the same manner as the skunk.

Occasionally we lighted upon land tortoises, which, with their unlaid eggs, make a very agreeable dish. It is wonderful how this reptile holds its place in the country, for it possesses neither speed nor cunning; even its bony covering,

from which the teeth of the hyæna glance off foiled, does not protect it from man. Its yellow and brown colour, by its similarity to the surrounding grass and brushwood, helps to render it indistinguishable. The young are taken for the sake of their shells. These are made into boxes, which the women fill with sweet-smelling roots and hang them round their persons. When older the animal is eaten, and its armour converted into a rude basin to hold food or water. When about to deposit its eggs, it lets itself into the ground by throwing the earth up round the shell, until the top only is visible; the eggs laid, it covers them up and leaves them. When the rains begin to fall and the fresh herbage appears, the young ones come out, and, unattended by their dam, begin the world for themselves. Their food is tender grass and a plant named thotona. They frequently devour wood-ashes, and travel great distances to places where they can get health-giving salt.

Inquiries among the Bushmen and Bakalahari, who are intimately acquainted with the habits of the game, lead to the belief that many diseases prevail among wild animals. I have seen the kokong or gnu, káma or hartebeest, the tsessébe, kukama, and the giraffe, so mangy as to be uneatable even by the natives. Numerous zebras are found dead with masses of foam at the nostrils, exactly as occurs in the common "horse-sickness." I once found a buffalo sightless from ophthalmia by the fountain Otse; when he attempted to run he lifted up his feet in the manner peculiar to blind animals. The rhinoceros has often worms on the conjunction of his eyes; but the inability to see correctly which makes him charge past a man who has wounded him, if he stands perfectly still, in the belief that his enemy is a tree, probably arises from the horn being placed in the line of vision. All the wild animals are subject to intestinal worms. The zebras and elephants are seldom without them. The zebra, giraffe, eland, and kukama, sometimes become mere skeletons from decay of their teeth. Lions get lean and perish miserably from the same cause. When they grow too old to catch game, they frequently take to killing goats in the villages: a woman or child who happens to go out at night falls into their clutches. As they have no other resource, they continue to visit in-

habited places; and from this circumstance has arisen the idea that the lion, when he has once tasted human flesh, loves it better than any other. A man-eater is invariably an old lion; and when he comes for goats, the people remark, "His teeth are worn, he will soon kill men." They at once turn out to destroy him. When living far away from the haunts of men, or when he entertains a dread of the Bushmen and Bakalahari, he begins, as soon as old age overtakes him, to catch mice and other small rodents. He even eats grass, though this perhaps he does, like dogs, as medicine. The natives, observing undigested vegetable matter in his droppings, follow up his trail in the certainty of finding him under some tree scarcely able to move. They then despatch him without difficulty.

The fear of man often remains excessively strong in the carnivora. The lioness, in the vicinity of towns where the large game have been driven away by fire-arms, has been known to assuage her hunger by devouring her young.* Yet so many lions came about our half-deserted houses at Chonuane while we were removing to Kolobeng, that the natives were terrified to stir out-of-doors in the evenings.

The African lion is somewhat larger than the biggest dog, and the face, which is not much like the usual drawings, partakes very strongly of the canine features. If he is encountered in the daytime he turns slowly round after first gazing a second or two, walks as slowly away for a dozen paces looking over his shoulder, quickens his step to a trot till he thinks himself out of sight, and then bounds off like a greyhound. As a rule, there is not the smallest danger of a lion which is unmolested attacking man in the light. When the moon was shining we seldom tied up our oxen, but let them lie loose by the waggon, while on a dark rainy night, if there was a single beast in the neighbourhood, he was almost sure to attempt to kill one of our cattle. His approach is always stealthy except when wounded. A lion however with whelps will brave almost any danger. A person has only to cross where the wind blows from him to the animals, and both male and female will rush at him. In one case a man was

* Bitches have been known to eat their pups. This may arise from that same craving for animal food which is felt by man in these parts.

bitten before he could climb a tree; and occasionally a man on horseback has been caught by the leg under the same circumstances.

When a lion is very hungry, and lying in wait, the sight of an animal may excite him to go after it. A hunter who was stealthily crawling towards a rhinoceros happened to glance behind him, and found to his horror a lion *stalking him*. He only escaped by springing up a tree like a cat. At Lopepe a lioness sprang on the after quarter of Mr. Oswell's horse, which started away, and the rider, caught by a wait-a-bit thorn, was dragged to the ground and rendered insensible. His dogs saved him. The lion has a characteristic which he seems to possess in common with the rest of the feline species, that any appearance of a trap brings him to a stand. When a goat is picketed in India on a plain as a bait for a tiger, the latter whips off the animal so quickly that no one can take aim. A small pit is therefore dug, and the goat is tied to a stake at the bottom. This renders the tiger suspicious, and he walks round and round the pit, which allows the hunter, who is lying in wait, to have a fair shot. The lion is equally cautious; one sprang at Captain Codrington, who shot him dead in the neck. A horse ran away, and was stopped by the bridle catching a stump. He remained a prisoner two days, and Captain Codrington found the whole space around marked by the footprints of lions. They had been afraid to attack the haltered horse, from the apprehension that it was a trap. A couple came by night to within three yards of the place where the oxen were tied to a waggon, and a sheep to a tree. They stood roaring, but were afraid to make a spring. On another occasion three of our party were lying sound asleep, when a lion approached within a yard or two and began to roar. The fact that their riding-ox was fastened to the bush deprived him of the courage to seize his prey. He retired to a knoll three hundred yards distant, where he roared all night, and continued growling as the men moved off next morning.

Nothing that I ever learned of the lion would lead me to attribute to it either the ferocious or noble character ascribed to it elsewhere. He chiefly preys upon defenceless creatures; and frequently, when a buffalo calf is caught by him, the cow rushes to the rescue, and a toss from her often kills him. On the plain, south of Sebituane's ford, a herd of these animals

kept a number of lions from their young by the males turning their heads to the enemy. A toss, indeed, from a bull would put an end to the strongest lion that ever breathed. It is questionable if a single beast ever engages a full-grown buffalo, for when one falls a victim the amount of roaring seems to indicate that there has been a league to effect the slaughter. Messrs. Oswell and Vardon once saw three lions combine to pull a buffalo down, and they could not accomplish it without a struggle, though he was mortally wounded by a two-ounce ball. I have been informed that in India even the tame buffaloes will chase a tiger up the hills, bellowing as if they enjoyed the sport. The calves of elephants are sometimes torn by lions, but every living thing retires before the lordly parent, though even a full-grown specimen would be an easier prey than the rhinoceros. The mere sight of the latter is sufficient to make the lion rush away. Yet of his great strength there can be no doubt. The immense masses of muscle around his jaws, shoulders, and forearms, proclaim tremendous force, but he seems in this respect to be inferior to the Indian tiger. When he performs such feats as taking away an ox he does not carry the carcase, but drags it along the ground.

It is doubtful whether the lion ever attempts to seize an animal by the withers, and he seldom mounts on its hind-quarters. He either springs at the throat below the jaw or flies at the flank. The last is the most common point of attack, and it is the part he begins to feast on first. An eland may be seen disembowelled so completely, that he scarcely seems cut up at all. The entrails and fatty parts form a full meal for even the largest lion. When gorged, he falls fast asleep, and is then easily despatched. He sometimes lays dead the jackal by a stroke from his paw as he comes sniffing about the prey.

Where game is abundant, lions may be expected in proportion. They are never seen in herds, but six or eight, who are probably of one family, occasionally hunt together. There is less danger of being devoured by them in Africa than of being run over when walking in the streets of London. Hunting them with dogs involves little peril when compared with hunting the tiger in India, for the dogs drive them from the

THREE LIONS ATTEMPTING TO DRAG DOWN A BUFFALO, AS SEEN BY MR. OSWELL AND MAJOR VARDON.

cover, and as they stand at bay the sportsman has plenty of time for a deliberate shot. In short, nothing that I have seen or heard about lions would constitute a barrier in the way of men of ordinary courage.

The same feeling which has induced the modern painter to exaggerate the form of the "king of beasts" has led the sentimentalist to consider his roar the most terrific of earthly sounds; "majestic" is the common epithet applied to it. It is calculated to inspire fear when heard in a pitchy dark night amidst the tremendous peals of an African thunderstorm, and the vivid flashes of lightning which leave on the eye the impression of stone-blindness, while the rain pouring down extinguishes the fire, and there is neither the protection of a tree, nor a chance that your gun will go off. But when any one is snug in a house or waggon, the roar of the lion inspires no awe. A European cannot distinguish between the note of a lion and that of an ostrich. In general the voice of the former seems to come deeper from the chest; but to this day I can only pronounce with certainty from which of the two it proceeds, by knowing that the ostrich roars by day and the lion by night. The natives assert that they can detect a difference at the commencement of the sound. There is, it must be admitted, a considerable distinction between the singing noise of a lion when full and his deep gruff growl when hungry.

The African lion is of a tawny colour, like that of some mastiffs. The mane in the male is large, and gives the idea of great power. In some specimens the ends of the hair are black, and these go by the name of black-maned lions, though as a whole they look of the usual yellow tawny colour. At lake Ngami Messrs. Oswell and Wilson shot two animals of another variety. One was an old lion, whose teeth were mere stumps, and his claws worn quite blunt; the other was full grown, in the prime of life, with white perfect teeth. Both were destitute of mane. The lions in the country near the lake give tongue less than those further south. We scarcely heard them roar at all.

In the country adjacent to Mashue numbers of different kinds of mice exist. The ground is often so undermined with their burrows that the foot sinks in at every step. Little hay-

cooks, about two feet high, and rather more in breadth, are made by one variety of these little creatures. This is done for obvious reasons in regions which are annually covered with snow, but it is difficult to divine the purpose of the haymaking in the climate of Africa.*

Wherever mice abound, serpents may be expected, for the one preys on the other. A cat, by clearing off the food which attracts these reptiles, is a good preventive against their entrance into a house. Occasionally, however, they find their way in. At Mabotsa one morning a man came to me early, and going to the door in the dark I set my foot on a serpent. The moment I felt the cold scaly skin twine round my leg I jumped up higher than I ever did before, or hope to do again. The reptile was shaken off by my leap. Several varieties, when alarmed, emit a peculiar odour, which betrays their presence in a house. In the country these reptiles inspire none of that loathing which we experience when sitting reading about them in England. Even the most venomous sorts bite only when put in bodily fear, or when trodden upon, or when the sexes come together. I once found a coil of their skins, denoting that a number of them had twisted together in the manner described by the Druids of old.

Some of the serpents are particularly venomous. One species (picakholu) which we killed at Kolobeng continued to distil clear poison from the fangs for hours after its head was cut off. So copious is the supply that, when a number of dogs attack it, the first bitten dies almost instantaneously, the second in about five minutes, the third in an hour or so, while the fourth may live several hours. This reptile commits great havoc in a cattle-pen. Our specimen was of a dark brown, nearly black colour, and eight feet three inches long. It is probably the same kind as that which passes by the name of the "spitting serpent," and which is believed to be able to eject its poison into the eyes when the wind favours its forcible expiration. We have the puff-adder in Africa, various vipers and cobras (*Naia haje*, Smith) of several colours. When annoyed they raise their heads about a foot from the ground,

* *Euryotis unisulcatus* (F. Cuvier), *Mus pumelio* (Spar.), and *Mus lehocla* (Smith), all possess this habit in a greater or less degree. The first of these may be seen running from danger with its young hanging to the after-part of its body.

flatten the neck, and dart out the tongue and retract it with great velocity, while their fixed glassy eyes glare as if in anger. All reptiles require water, and go long distances to the Zouga, and other rivers and pools, in search of it.

There is a serpent named by the inhabitants "Noga-putsane," or serpent of a kid, which utters a cry by night exactly like the bleating of that animal. I heard one at a spot where no kid could possibly be. It is supposed by the natives to lure travellers by this device. The mode in which some of the snake tribe catch their prey is curious. The *Bucephalus viridis* climbs trees in search of birds and eggs, and is soon discovered by all the birds in the neighbourhood collecting and sounding an alarm.* The fangs of this species are not so much formed for injecting poison on external objects as for preventing any animal or bird of which they have got hold from escaping from their jaws. The *Dasypeltis inornatus* (Smith) has small teeth, which permit the passage of thin-shelled eggs without breaking till within the gullet or about 2 inches behind the head. There they come in contact with the gular teeth, which crack the shells without the contents being spilled, as would

* "The *Bucephalus Capensis* is generally found upon trees, to which it resorts for the purpose of catching birds, upon which it delights to feed. The birds of the neighbourhood collect around it and fly to and fro, uttering the most piercing cries, until some one, more terror-struck than the rest, actually scans its lips, and, almost without resistance, becomes a meal for its enemy. During such a proceeding the snake is generally observed with its head raised about ten or twelve inches above the branch round which its body and tail are entwined, with its mouth open and its neck inflated, as if anxiously endeavouring to increase the terror. Whatever may be said in ridicule of fascination, it is nevertheless true that birds, and even quadrupeds, are, under certain circumstances, unable to retire from the presence of certain of their enemies; and, what is even more extraordinary, unable to resist the propensity to advance from a situation of actual safety into one of the most imminent danger. This I have often seen exemplified in the case of birds and snakes; and I have heard of instances equally curious, in which antelopes and other quadrupeds have been so bewildered by the sudden appearance of crocodiles, and by the grimaces and contortions they practised, as to be unable to fly or even move from the spot towards which they were approaching to seize them." (Dr. Andrew Smith's 'Reptilia.')

In addition to the statements of this most able naturalist, it may be added that fire exercises a fascinating effect on some kinds of toads. They may be seen rushing into it in the evenings without once starting back on feeling pain. Contact with the hot embers rather increases the energy with which they strive to reach the hottest parts, and they never cease struggling to get to the centre even when their juices are coagulating and their limbs stiffening in the roasting heat. Scorpions turn from the fire in fierce disgust, and inflict at that time, from irritation, their most painful sting.

happen if the front teeth were large. The shell is then ejected. Some snakes are eaten, such as the python, metse pallah, or tāri, of which the largest specimens are about 15 or 20 feet in length. They live on small animals, chiefly the rodentia, though occasionally the steinbuck and pallah fall victims, and are sucked into its comparatively little mouth in boa-constrictor fashion. To man they are perfectly harmless. One which we shot through the spine was 11 feet 10 inches long, and as thick as a man's leg. It was still capable of lifting itself up about five feet high, and opened its mouth in a threatening manner, but its inclination was to crawl away. The flesh is much relished by the Bakalahari and Bushmen. Each carries away his portion on his shoulders like a log of wood.

Some of the Bayeiye we met at Sebituane's ford pretended to be unaffected by the bite of serpents, and lacerated their arms with the teeth of the harmless kinds. Dr. Andrew Smith put their sincerity to the test by offering them the fangs of a poisonous variety, and found they shrank from the experiment.

When we reached the Bamangwato the chief Sekomi was particularly friendly, brought all his people to our religious services, and explained his reasons for obliging some Englishmen to surrender up to him a horse. "They would not sell him any powder, though they had plenty; so he compelled them to give it and the horse for nothing. He would not deny the extortion to me; that would be swindling." He thus thought extortion better than swindling; but his ideas of honesty are the lowest I have met with in any Bechuana chief. Englishmen have always refused to countenance the idea, which would hereafter prove troublesome, that payment ought to be made for passage through a country.

All the Bechuana and Caffre tribes south of the Zambesi practise circumcision (*boguera*), but the rites observed are carefully concealed. At Bamangwato I was once a spectator of the second part of the ceremony, called "sechu." Just at the dawn of day, a row of boys, nearly fourteen years of age, stood naked in the kotla. Each had a pair of sandals as a shield on his hands. The men, equally naked, were ranged opposite to them, and were armed with long wands, of a tough,

supple bush called moretloa (*Grewia flava*). They started off into a dance named "koha," in the course of which they put questions to the boys, as "Will you guard the chief well?" "Will you herd the cattle well?" As the lads give an affirmative response, the men rush forward, and each aims a full blow at his vis-à-vis. The boy shields his head with the sandals, and causes the supple wand to descend upon his back. Every stroke makes the blood squirt out from a wound a foot or eighteen inches long. By the end of the dance the whole back is seamed with wheals, of which the scars remain through life. The beating is intended to harden the young soldiers. After this initiation has been gone through, and they have killed a rhinoceros, they may marry a wife.

In the "koha" dance the same respect is shown to age as in many other of their customs. A younger man, who exercises his wand on the boys, may himself be chastised by an older person. On the occasion on which I was present, Sekomi received a severe cut on the leg from a grey-haired disciplinarian. I joked with some of the young fellows on their want of courage, notwithstanding the scourgings of which they bore marks, and hinted that our soldiers did not need so much suffering to make them brave. A man rose up and said, "Ask him if, when he and I were compelled by a lion to stop and make a fire, I did not lie down and sleep as well as himself." In other parts a challenge would have been given to run a race: grown men frequently adopt this mode of testing superiority, like so many children.

The sechu is practised by three tribes only. Boguera, which is a civil rather than a religious rite, is observed by all the Bechuanas and Caffres, but not by the negro tribes beyond 20° south. All the boys between ten and fourteen or fifteen are selected to be the companions for life of one of the sons of the chief. They are taken to some retired spot in the forest, and huts are erected for their accommodation. There the old men teach them to dance and initiate them into all the mysteries of African government. Each is expected to compose an oration in praise of himself, called a "leina" or name, and must repeat it with fluency.

When at Sekomi's we generally heard his praises sounded by a man who rose at break of day and uttered at the top of