

and of other monsters with which our credulous fathers peopled Africa, you will not the less "seriously incline" to hear his modest, unvarnished tale of adventures among lands as strange as any visited by the knights of old romance, and of dangers encountered and overcome by a spirit not less heroic than theirs.

Through the Masai Country to Victoria Nyanza.

By JOSEPH THOMSON.

(Read at the Evening Meeting, November 3rd, 1884.)

Map, p. 758.

As leader of your expedition to Mount Kenia and Victoria Nyanza, I appear before you to-night to render an account of my stewardship—a task which gives me unspeakable satisfaction.

It must be clear to you that in the time at my disposal I cannot tell you both how my work was performed and what are the scientific results of it.

I am confident, therefore, I shall best meet your wishes by relegating to my map and appendices the dry scientific details of my work, and confining myself to a general narrative of my journey.

It will be remembered that the Society, finding itself in 1882 in a position to undertake a new exploratory expedition, determined to prosecute the work in that region where East African discovery first took its rise, and yet which has been the last to yield up its geographical secrets—I allude to the area lying directly between the coast and Victoria Nyanza.

My commission instructed me to ascertain if a practicable direct route existed through the Masai country to the Lake, to examine Mount Kenia, and to gather data for constructing as complete a map as possible in a preliminary survey.

For the prosecution of this difficult and important task I left England on the 13th of December, 1882, and early in February of the following year I reached Zanzibar. There I was received and entertained most hospitably by Col. S. B. Miles, who entered heartily into the scheme of the Society, and rendered me very material assistance.

As I have such an extent of country to traverse and so much to tell, I will not detain you by a wearisome recital of our preparations and troubles—matters which are only too well known to all readers of African travel. I shall, therefore, pass over in silence my preliminary trip of inquiry to the coast, my difficulties in raising a caravan at Zanzibar, the hard work of selecting goods and the thousand items which the traveller requires; although, had time permitted, I should have liked to detail to you the hearty manner in which the C. M. S.

missionaries at Mombasa co-operated with me in my work of preparation. Suffice it to say that six weeks after my arrival at Zanzibar I found myself at Rabai, to the west of Mombasa, ready for the road.

My caravan consisted of 140 men all told, headed by James Martin, a Maltese sailor, Muinyi Sera, Stanley's former headman, and my old servant Makatubu. My headmen were splendid fellows; my ten askari or soldiers all faithful men and true. But the rank and file of 120 porters can only be described as the very offscourings of Zanzibar villany. They formed one of the most disreputable caravans that ever left the coast, though I am happy to say that after a world of trouble and annoyance I brought them back to Zanzibar improved physically and morally beyond all recognition.

It was, then, with this miserable crew that I was called upon to undertake one of the most hazardous expeditions that I make bold to say has been undertaken for many years in Africa. As I looked at them and thought what was before me, I could not but think of Stanley's significant advice to me before leaving England: "Take a thousand men or make your will!" That reminiscence, however, only came in as a piquant refrain to the song of buoyant hopes which tingled in my heart as I gave the signal to start on the 15th of March. There was a wild rush and scramble for the head of the caravan, with the customary incentive shouts to hurry up and a running fire of farewells as, headed by our flag, the long file of porters passed through the Mission village with its cocoa-crowned heights, its verdant ridges and outer cultivated slopes, and away into the "Nyika" or wilderness beyond.

Seeing that the country and people as far as Kilimanjaro have been so frequently and admirably described by the various travellers who have reached that place, I shall not linger to give you details concerning this part of our journey.

On passing the Rabai Hills the route trends away generally W.N.W. over the undulating country of Duruma, with its dense covering of bush and tangle alternating with thorny scrub, in which are here and there to be found settlements of miserable natives waging war with nature and eking out a meagre existence, ever face to face with famine or flying from the dreaded spear of the Masai.

On the third day we leave all trace of inhabitants behind; and by the fifth day the undulations have disappeared; the bush is replaced by a weird and ghastly assemblage of thorns and gnarled trees; the soil changes from a dark or grey loam to a glaring sterile red sand coincidentally with a change from sandstone to schists and gneiss. Not a drop of water is to be found, except in small holes filled by previous rains, and characterised by a "body" and a "bouquet" which require all the pangs of thirst to make us drink.

This is the true "wilderness." It consists of a great uninhabited plain surrounding the mountains of Teita, and it extends from Usambara

and Paré in the south to Ukambani and the Galla country in the north, and from Duruma on the east to Kilimanjaro on the west.

On the sixth march from Rabai we reach the borders of Teita, and exchange the monotonous wilderness for picturesque isolated mountains with their cool breezes and sparkling rills. These mountains, as they tower up in the surrounding waste to heights varying from 3000 to 7000 feet, may be described as an archipelago of precipitous islands rising from a muddy sea.

An ascent of Ndara which proved to be 5050 feet high, a visit to Mr. Wray who holds the outpost of the Mission army in this field, and a narrow escape from a fight with the Wa-teita, agreeably diversified a two days' stay while the men recruited.

We then crossed to the more picturesque and lofty range of Bura. Here again a fight was with difficulty prevented, and an attempt to stampede the men during the night was only warded off by a timely discovery. From Bura two heavy forced marches took us over the remaining bit of desert, and on the 1st of April we had the satisfaction of successfully completing our first stage by a sudden transition from the sandy wastes to the leafy labyrinths and delicious shade of Taveta.

This district is one of those ideal bits of tropical forest with which the popular imagination clothes the equatorial regions, but which the toil-worn African traveller so seldom sees. Clothing the banks of the snow-fed Lumi, it presents one of the most glorious masses of vegetation conceivable, while the agency of man has been instrumental in forming charming glades, bosky bowers, and rich plantations. The Lumi, deliciously cool and clear, invites the traveller to try its liquid depths, and spreads fertility throughout the year. The neighbouring snow cap of Kilimanjaro tempers the air, and keeps it "cool, though in the depths it lies of burning Africa."

It may indeed be said to be a veritable Arcadia in respect of its charming scenes, and the natives hardly detract from the poetical picture. True Arcadians they are in their peaceable habits, their hospitality, their manly pleasant way and surprising honesty, the only blot to the picture being their excessive lack of common morality.

The Wa-taveta are a blending of two very distinct races, viz. the original Wa-taveta who belong to the Bantu branch, and the Wa-kwafi or Masai who are allied to the Hamitic tribes of the Nile and North Africa. And here by the way let me inform the student of ethnology that the term M-kwafi is a purely Swahili name for a clan of Masai. There is no more distinction between a so-called M-kwafi and a Masai than there is between a Campbell and a Cameron in the Scottish Highlands. I would therefore have you clearly to understand that when I use the term M-kwafi I simply retain the coast name of one among many septa of Masai (just as a Campbell belongs to one among the many Gaelic clans). The Wa-kwafi who are now found in Taveta are there through

the loss of their cattle in their numerous civil wars, they being thus compelled to break their strong caste prejudices and take to the cultivation of the soil.

To the traders from the coast Taveta is admirably suited as a trading and recruiting centre for caravans going to or returning from the Masai country; and hence it has always been a place of great importance.

On our arrival at this agreeable spot I found I had much to do. Thirty loads of beads had to be strung into certain required lengths, and cloths made up as war dresses for the Masai. This proved to be a very trying business with the band of thieves I had under me. In spite of every precaution, no less than two loads were stolen. Yet we had to treat the scoundrels most tenderly, lest we should cause a general desertion. At that time, as I well know, the great majority were just waiting for an opportunity to decamp. Hence every road had to be guarded night and day; all the guns had to be taken from the men and locked up; the most bloodthirsty orders given to the guards, and stories about Masai war parties judiciously circulated. But for this incessant care I should have got up some morning to find the greater part of my men gone.

This policeman's duty was, however, somewhat compensated by trips through the forest to Lake Jipè, an inspection of the parasitic cones which dot the base of the parent volcano of Kilimanjaro, and a visit to the charming little crater lake of Chala, which now occupies the centre of a volcano fully two and a half miles in diameter. The eruption which originated this lake must have been one of the last paroxysmal efforts of the volcanic forces in this region, extending indeed into historical times as its perfect preservation would suggest—a fact further made certain by a Masai tradition which tells how a Wa-kwafi village once occupied the site and was blown into the air by a terrible convulsion. With a strain of poetry they tell you how you may still hear the lowing of cattle, the barking of dogs, and other characteristic sounds of village life. The view looking across its liquid depths to the great parent cone beyond is one of the most notable in Africa at once for exquisite romantic beauty and stupendous grandeur.

It was during one of my forest strolls that I got my first glimpse of Kilimanjaro. We had been for many days at its base, and yet not a glimpse had rewarded our frequent attempts to view its cloud-enveloped heights. We had almost begun to ask ourselves if after all we were to be doomed to the mere "mental recognition" ascribed to Rebmann. Happily such was not to be our fate, for there stood the "Mount Olympus" of those parts, revealed in all its glory, fitly framed by the neighbouring trees. From the forest-clad pediment of Chaga towered up on the left the grand dome or crater of Kibo with its snowy helmet glancing and scintillating like burnished silver in the rays of the afternoon sun; and beside it on its eastern flank rose in striking contrast the dark rocks and

jagged outlines of the pinnacle or peak of Kimawenzi. I could only stand speechless as I got this glimpse of majestic grandeur and god-like repose, feeling how utterly inadequate were words to describe my feeling. But my opportunity was brief. The veil had only been lifted temporarily, and soon huge cumulus clouds began to tumble and roll along the lower pediment, hiding it from view, though for a time leaving the black peak and the glittering dome projected against the pure azure, hanging apparently in mid heavens and more impressive than ever. At last a veil of stratus mysteriously spread itself out. In a few seconds the whole scene vanished, and I found myself staring blankly at a monotonous expanse of grey, little wondering that the natives of the surrounding desert looked up to this great mountain as the very Holy of holies.

My conversations with traders recently returned from the Masai country gave me for the first time some adequate conception of the difficulties before me. It enabled me to realise as I had not hitherto done that the conditions of travel in this region were very widely different from those of the region further south, and they confirmed my previous belief that my caravan was much too small. I was assured that no one ever dreamed of entering the Masai with less than 300 men, and always more when possible. I learned also that as there were no recognised footpaths, and as watering-places were few and far between, and the population migratory, it would be simply courting defeat to trust to one guide.

The money at my disposal unfortunately would not permit me to enlarge my caravan, but I took an important step in the engagement of Sadi-bin-Ahedi. This gentleman is well known to geographers as Wakefield's informant; but he has also become famous in a less favourable sense as the caravan leader and guide of Baron Von der Decken, and also of the missionary New. He contrived to ruin the hopes of the former and co-operated with the notorious chief Mandara in the plunder of the latter. That I should have engaged a man with such a black record will show you how strongly I felt myself under the necessity of having a second guide and interpreter.

It was the 18th of April before all our preparations were complete. On that date we moved out of our arboreal fortress, and on the following day, after a night of anxiety and incessant watchfulness to prevent desertion, we set our faces towards the Masai country.

Our route lay round the southern and western aspects of Kilimanjaro, skirting the boundary of Chaga. A six hours' march brought us to the Habali stream, and there to my intense dismay I learned that a great Masai party was camped in front of us. What was to be done? To turn back or to go forward seemed equally to involve ruin. But the former course I could not for a moment bring myself to think of; I resolved to stand my chance and to push on. Meantime, however, we must take precautions against surprise. In an hour we surrounded

ourselves with an impenetrable thorn fence, while during the night a strong guard was mounted as much to prevent desertion as in expectation of an attack.

Next day, sending an advance guard ahead, we again set out. We proceeded with every possible precaution, but nothing disturbed our march. It was necessary, however, to leave the pathway and stow ourselves away in the jungle till the Masai should have left. We selected therefore as the most suitable position a place near the residence of the chief Mandara, and there we rested.

Of the interesting events which happened during that enforced pause in our progress I unfortunately cannot enter into details. Suffice it to say that I had an interview with Mandara himself, and was much impressed by his princely bearing and evident intelligence.

To pass the time, I ascended Kilimanjaro to a height of 8777 feet for the purpose of collecting some plants. On my return I heard with relief that the Masai had passed and the road was clear. I had still, however, to settle with mine host, who had no idea of letting me off without a *souvenir* of my visit. Through the treachery of our guide Muhinna we narrowly escaped being plundered, though at that time I was not aware of it. As it was, I was compelled to leave behind a large and varied selection of my personal effects, including my own gun, a complete suit of clothes, an iron box, and numerous other articles. Not at all delighted to introduce the blessings of civilisation in this involuntary manner, I bade adieu to Mandara with a prudent show of much friendliness, though in reality with (I am afraid) most unchristianlike feelings and wishes. Thus relieved of a burden of care as well as a load of very valuable goods, we hurried on more lightly, mentally and physically, and soon forgot our mishaps in the wonderfully beautiful scenery around us.

The numerous mountain torrents from the region of rain and snow have carved the Chaga slopes into a varied scene of hill and dale; here a gallery forest arching over a rushing stream, there a bush-clad ridge; now a beautiful glade, anon a piece of park-like country. To our left the view extends over cultivated fertile slopes from which rise curling columns of smoke. Thence ever ascending higher, the eye scans the dark-green forest region, till, passing the lower pediment, it reaches a barren zone, from which spring cloudward the masses of Kibo and Kimawenzi. To the east a distant view over Taveta and the plain beyond is bounded by the higher peaks of Bura and Kadiaro rising above the horizon like dangerous black rocks. Turning to the south-west, we survey a rich expanse of forest and jungle, dotted every here and there with sugar-loaf volcanic hills or more humpy masses of schists breaking through the lavas and tuffs. The gaze is at last transfixed by a glimpse of the silvery sheet of Lake Jipè, seen past the dark and gloomy range of Ugono. To the south the view extends over the well-watered

depression of the Kahè country to the interesting mountains of Sogonoi. This fine panorama is completed to the west by the magnificent though simple outline of the volcanic cone of Mount Meru, which rises from the surrounding plain like a cyclopean pyramid.

Four marches from Mandara's over this exquisite country, with its surprising number of streams and rivers running south, brought us to the "door" or gateway of the Masai, at a place called Kibonoto, on the west side of Kilimanjaro. This is the district where the trading caravans halt to make their last preparations and collect food for the transit of the Masai country, in which nothing but cattle is to be obtained.

To my great annoyance I here found that in spite of all my efforts I had fallen upon the very route taken by Dr. Fischer, who my inquiries had led me to believe would have taken a different road. That, however, was a small matter compared with the further discovery that a few days before my arrival Fischer had had a fight with the Masai, and that in consequence the whole country was in a state of dangerous excitement. I had now reason to congratulate myself on the fact that there were warriors behind as well as in front of us, my men being thrown into a condition of panic bordering on mutiny.

The problem thus presented was certainly not a pleasant one. How should we be able to get into the country with only 150 men, when Fischer with a combined caravan of four times that number had been compelled to fight? The position was pretty much that of a forlorn hope, but I could see only one course open to me. I must at least make the attempt to pass before I confessed myself beaten.

That attempt was made. We crossed the threshold, traversed a grassy treeless plain, and reached the kraals of the Masai at Ngaré, N'Erobi in Sigirari. Our greeting was at first most encouraging. With much cheerfulness they relieved us of the care of nearly ten loads of goods. As the day advanced, however, matters became ominous. The warriors grew boisterous and rude. One man attempted to stab me because I pushed him away, and we had to remain under arms from morn till night.

On the third day our worst fears were realised. We had been deluded and entrapped, and the entire country was up in arms to take revenge on our small party for their failure to annihilate Fischer. I had, moreover, by this time seen only too good reason to entertain the gravest doubts about the good faith of my guides, who at the best were manifestly cowards. It was with bitter feelings of disappointment and chagrin that I had to confess there was no course open to me but retreat. I might, it is true, have gone in for a policy of sensationalism and adventure, but I felt that that was not what I was sent out for, and I had not yet lost faith in the Italian proverb which I had adopted as my motto, "He who goes gently goes safe; he who goes safe goes far."

Prompt action was now required. News reached us that we would probably be attacked next day. I therefore resolved to exercise a wise discretion and to anticipate the enemy's approach. The night came on gloomy and dark. Drops of rain fell. With hearty satisfaction we saw that a storm was brewing. The word was passed to pack up—a work performed with eager though silent celerity—and thus our retreat commenced in pitchy darkness. The kraals were passed safely to our unspeakable relief. Without misadventure the rest of the country was traversed, and towards the morning we reached our camp at Kibonoto in the midst of a terrific thunderstorm.

A few days later we re-entered Taveta. There leaving Martin in charge of the caravan, I selected ten of my best men and made a forced journey to Mombasa. This place we reached in six stages, having tramped from 35 to 40 miles a day. In one of our marches we did little short of 70 miles within the twenty-four hours and that without a drop of water or bit of food.

My object in making this visit to the coast was to get a few more men, to replenish my sadly diminished goods, and if possible to replace the traitor Muhinna by another man if one could be got. The latter object I failed to attain, and was compelled to return with the scoundrel, who of course was meanwhile kept in ignorance that I suspected him.

In a not very enviable state of mind, but imbued with Mr. Micawber's notion that "something would turn up," I regained Taveta after another series of swift marches, to find Martin and the caravan safe and in good health. There had been fortunately no desertion, owing to the precaution we had taken to secure the guns—for the men were too much afraid of the Masai to trust themselves to the wilderness unarmed.

To my great joy I found that the much-desired "something" had "turned up." There was a large caravan from Pangani about to start in a few days for the interior. I at once put myself in communication with the leader, Jumba Kimameta, who for a consideration agreed to let me accompany him past the first stage. It required, however, a vast amount of diplomacy and "soft sawder" to get round the other traders, who to a man were dead against having any connection with me. The negotiations ended, however, in the very worst of them declaring that rather than see me stopped he would carry me on his own shoulders.

My worst suspicions about Muhinna and Sadi were here confirmed, and it was conclusively proved to my mind that they had systematically done all they could to ruin the expedition, having been probably instigated thereto by the Governor of Mombasa. Their villany was laid bare in time to prevent their success in a renewed attempt at Taveta. Yet so absolutely necessary were they to me, that I studiously concealed my knowledge of all they had done.

With our combined caravans it was now unanimously determined to adopt the route which passes to the east of Kilimanjaro. That road

had been closed for many years owing to the numerous fights which had taken place between the traders and the Masai of Lytokitok. But with such a caravan as ours we felt we should be quite a match for any number of warriors likely to be brought against us.

On the 17th of July we for the second time advanced upon the Masai country. This time, however, we had no misgivings as to the result. Our route lay due north along the eastern aspect of Kilimanjaro through a beautiful reach of pasture-land which here spreads out between the base of the mountain and the Lumi—the tree-lined banks of that stream distinctly marking off the fertile area from the barren waste of the Nyika, and at the same time indicating the line of separation between the volcanic rocks and the metamorphic.

The second march brought us to the Useri stream which along with the Kimangelia tributaries form the head-waters of the Tzavo branch of the Sabaki river. These streams are remarkable for the way in which they well forth at the base of Kilimanjaro. In this respect they differ wholly from the Chaga streams which rise high up on the mountain.

As we proceed north the ground gradually rises till it culminates beyond Kimangelia in a broad flat ridge 5000 feet high. Game here is surprisingly numerous. I had several narrow escapes from rhinoceroses which on various occasions broke through the caravan. One especially charged me furiously, and I only succeeded in stopping its advance with my last cartridge when it was within less than its own length of me. At Kimangelia also an old buffalo bull scattered our caravan, pitched a donkey in the air, nearly killed two men, and was only stopped running further amuck by a bullet of mine which laid it low.

Our march as far as Kimangelia was characterised by numerous vexatious delays, in collecting food from the Wa-chaga, in sending back wounded men to Taveta, and from various other causes. At last the day arrived for once more crossing the Masai frontier, and the most strict precautions had to be adopted to ensure our safety.

Crossing the ridge of which I have spoken, our route trended more to the west. We rounded the mountain and reached the great plain of Ngiri. Here we renewed our acquaintance with the Masai, and from the few elders who visited us we were rejoiced to learn that all the warriors in that region had left on a great war raid. This was indeed good news. It would save us a world of trouble and danger, and it would lessen enormously the demand on our goods.

Ngiri proved to be the dried-up bottom of a great lake which formerly had occupied this region, and doubtless had supplied Kilimanjaro with the water that seems to be such a necessary element in volcanic activity. It lies at a level of 3550, and there are still numerous indications of its former condition in the shape of ponds, marshes and swamps fed by springs—for curiously enough not a single stream descends from Kilimanjaro or rises at its base, along the whole of the north side.

The view from the centre of the Ngiri plain is one of the most weird and impressive spectacles I have ever seen.

Imagine yourselves standing in the centre of a great level plain without a single inequality to relieve the monotony, and not a blade of grass to lighten the barren aspect of the damp muddy sand, which charged with various salts effectually prevents the formation of vegetation. Here and there in the distance, however, are to be detected a few sheets of water surrounded by rings of green grass; while a few straggling trees or scrubby bushes mark the positions of fresh-water springs. Other tracts are seen to be covered with a crust of natron and saltpetre formed by efflorescence or by the evaporation of the water from the springs. These appear to the eye as sheets of pure white snow or lakes of charmingly clear water; and when struck by the rays of the sun they shine with the blinding splendour of that luminary itself.

In spite of the desolate character of the scene, it is not without abundance of wild life. The giraffe, fit habitant of such a waste, is seen browsing among the bushes which surround the distant ponds. The wildebeest frisks and gambols with uncouth movements or slowly wanders in great herds across the natron plains, while the zebra, most beautiful of all animals, paces leisurely in long lines from some distant pasture ground, with waving tail and head low down, doubtless with the feeling of contentment in a sense of repletion. Various other animals enliven the outlook in numbers sufficient to evoke wondering expressions of inquiry as to how they live in this extraordinary desert. In the morning very perfect mirages are to be seen elevating the game phantom-like till they appear to be moving high in the atmosphere, while a marvellously beautiful effect is produced by the heated air rising from the sands giving a curious wavy motion to the black and white stripes of the zebra, reminding one somewhat of the electric advertisements to be seen about railway stations at home.

Through a ghastly haze Kilimanjaro may be discerned abruptly springing cloudward at a very high angle with perfectly even uninhabited slopes. On the W.S.W. stands the pyramidal Mount Meru. On the north-west are the peaks of Ndapduk and the frowning mass of Donyo Erok. To the north are the less imposing hills of Matumbato, and away to the north-east and east are the mountains of Ulu and Kyulu.

It was very fortunate that game was so abundant here, as our food fell short. I had to supply the entire caravan by my rifle, which caused me to run into more dangers than I bargained for, as I was not at all desirous of reaping glory by shooting rhinoceroses.

Four marches across Ngiri, at first west, then north, brought us to the Ngaré Na Lala, at the base of Donyo Erok el Matumbato; and here we exchanged once more the volcanic for the metamorphic area. Here also we first met the Masai in considerable numbers, and our miseries commenced in right earnest.

It is quite impossible to picture to you the wretched life we were now called upon to lead among the most unscrupulous and arrogant savages to be found in all Africa, who indeed look down upon all other tribes as inferior beings. Even with our large caravan we had to submit with the meekness and patience of martyrs to every conceivable indignity. Though they had pulled our noses, we should have been compelled to smile sweetly upon them.

On reaching camp each day our first business was to construct a strong thorn fence with all possible celerity. Inside this the goods were protected by an inner circle, and covered over from prying eyes. Another fence was placed round the tents, and the entrance guarded by several men who with bland manners and soothing words sought to mitigate the horrors of a Masai invasion. In spite of everything, however, they would frequently push the men aside and swagger into the tent, bestowing their odoriferous, greasy, clay-clad persons on my bed or whatever object best suited their ideas of comfort. After formal salutations and assurances (with "asides") of how delighted I was to see them, begging would commence, and string after string of beads would be given them in the hope of hastening their departure. Finally, after exhibiting to their untutored gaze all the marvels of my own white person, they might be cajoled out, leaving behind them most unsavoury tokens of their visit.

Till night no man might lay aside his gun or leave a single object exposed to view, and it was only in large numbers they dared go outside to draw water or collect food. At sunset the Masai would retire, and then a sense of relief would be experienced. The gate was closed, and a night guard appointed. After that guns might be dispensed with, fires lit, and food cooked. As the night crept on, tongues would be loosened and general animation aroused, only now and then broken as a prowling Masai thief would be challenged or a charge of powder fired to frighten him off. The stir of the camp would reach its maximum three hours after sunset, and then gradually die away as the porters, wearied with the work of the day and filled to repletion, sank one by one to rest. Then only the horrible laughing and yelling of hyenas, the roaring of lions, and the cries of jackals or wild dogs were to be heard in the midnight air.

As we have now seen something of the Masai, it may not be out of place to say a few words more immediately descriptive of them. A more remarkable or unique race does not exist on the continent of Africa—indeed I might safely say in the two hemispheres. In their physique, manners and customs, and religious beliefs, they are distinct alike from the true negroes and from the Galla and Somali. They are the most magnificently modelled savages I have seen or even read of. Beautifully proportioned, they are characterised by the smooth and rounded outline of the Apollo type, rarely showing the knotted and brawny muscles of the true athlete.

The women are very decently dressed in bullock's hide. They wear by way of ornament from 20 to 30 lbs. of thick iron wire coiled round the limbs, arms, and neck, beside a great assortment of beads and iron chains. The men wear only a small kid-skin garment round the shoulders and breast, that being of somewhat more ample dimensions among the married men.

The most remarkable distinctions characterise the various epochs in the life-history of the Masai. The boys and girls up to a certain age live with their parents, and feed upon meat, grain, and curdled milk. At the age of twelve with the girls, and from twelve to fourteen years with the boys, they are sent from the married men's kraal to one in which there are only young unmarried men and women. There they live in a very indescribable manner till they are married.

At this stage the men are warriors, and their sole occupation is cattle-lifting abroad and amusing themselves at home. The young women attend to the cattle, build the huts, and perform other necessary household duties. Both sexes are on the strictest diet. Absolutely nothing but meat and milk passes their lips. Spirits and beer, tobacco, or vegetable food are alike eschewed. So peculiar indeed are they in their notions, that they will not even eat the meat of any wild animal. Moreover, the meat and milk are never taken together. For several days the one is their sole diet, to be followed by the other after partaking of a powerful purgative. On killing a bullock they drink the blood raw, which doubtless supplies them with the necessary salts. In eating meat they always retire to the forest in small parties accompanied by a young woman.

So pleasant does the Masai warrior find this life that he seldom marries till he has passed the prime of life and begins to find his strength decline. The great war spear and heavy buffalo-hide shield, the sword and the knobkerry, are then laid aside. For a month he dons the dress of an unmarried woman, and thereafter becomes a staid and respectable member of Masai society. He goes no more to war, but devotes himself to the rearing of a brood of young warriors. His diet changes with his mode of life, and he may indulge in vegetable food, drink beer or spirits, and smoke or chew tobacco. At death, the body is simply thrown out to the hyenas and the vultures.

The habits of this strange tribe are purely nomadic. They move about according to the pastures. Their houses are formed by bent boughs plastered over with dung, hides forming an additional protection in the wet season. Their mode of government, their peculiar religious belief, and their distinctive customs in peace and war, all form interesting and attractive matter, but must be left undescribed at present.

From Donyo Erok our route lay almost due north, through the district of Matumbato, a region resembling the Nyika in its sterile

character, its red soil, and geological formation, but differing from it in its greater abundance of water, broken surface, and numerous inhabitants.

On our fifth march from Donyo Erok we reached a great area of sterile desert which stretches westward to Ngurumani and the Maū Mountains. Our route now skirted the base of the Kaptè plateau, the perpendicular escarpment of which here frowns dark and threatening over the plains. This topographical feature marks the line of a great fault running generally north and south, its geological character being further indicated by numerous volcanic cones which have sprung up along the line.

Five more marches through Masai in great numbers, and we left the plain. Ascending the plateau we reached Ngongo-a-Bagas at an elevation of 6150 feet. It is here and in the immediate neighbourhood that the Athi river of Ukambani takes its rise, forming the southern boundary of Kikuyu.

At this delightful spot we spent a fortnight, recruiting our men, and laying in a supply of grain which was brought in extraordinary quantities by the intractable Wa-kikuyu.

Our purchases completed, we resumed our march laden with a month's provisions, while the traders had more than double that quantity.

The first camp from Ngongo we passed through a night of adventures, resulting in the death of two Pangani porters and several Wa-kikuyu who surrounded us in thousands. The night was stormy, and we were in a dense forest without our usual thorn fence, so that it was a marvel we escaped with so little loss. In the morning a large capture of Wa-kikuyu was effected, and it was with difficulty I saved them from having their throats cut by the enraged traders.

The next march was a long one without water, and ended in a still more marvellous scene of disorder and panic. Men fell down exhausted. Lions attacked the donkeys, killing several. The donkeys fled braying, kicking off their loads, and in the darkness many were shot down as lions. Men threw down their loads and fled for camp or spent the night up trees. Lions roaring, donkeys braying, guns firing, shouts and cries of panic-stricken porters and excited masters, produced an effect such as I shall never forget, while fear-maddened cattle broke away from all control and crashed through the bush. Aply seconded as I was by Martin and my headmen, I succeeded in keeping my porters together, and got everybody and everything safe into camp. One half of the Pangani caravan, however, under the belief that the Masai or the Wa-kikuyu had attacked those in front, dared not advance, but huddled together like a flock of sheep, seeing lions in every waving bush and Wa-kikuyu in every stump. To hunt up lost donkeys and cattle, collect loads thrown away, and otherwise repair the disasters of that night, required a halt of three days; and even then we departed with a serious loss.

On leaving G. Kidong where we had stopped, we reached the base of a remarkable extinct volcanic crater named Donyo Longonot or Suswa.

It rises 3000 feet above the surrounding plain to a height of 9000 feet in the shape of a truncated cone, the centre of which forms a great circular pit about two miles in diameter and many hundreds of feet deep. So sharp is the rim that I actually sat astride of it, with one leg, dangling into the abyss below and the other down the steep face of the mountain.

The view from this extraordinary crater is one of the most varied and imposing imaginable. To the south, from the great desert plain rises another larger but less regular crater called Donyo La Nyuki. On the east, tower the frowning mountains of Kaptè, over which may be seen the higher peaks of that magnificent range of mountains known to geographers as Settima. To the north lies Lake Naivasha with its pretty isles bounded to the west by the great escarpment of Maū—the counterpart of the Kaptè plateau.

From this place a single march brought us to the south end of Lake Naivasha; and the next morning we camped at the north end. Here I found that for a second time I had fallen upon Dr. Fischer's route, only to learn, however, that he had been compelled to turn at this point.

Naivasha is a comparatively shallow fresh-water lake, forming an irregular square 12 miles long by 9 broad, lying at an elevation of 6000 feet. It has been formed by the piling up of volcanic débris across the narrow trough lying between Maū and Kaptè, damming back the waters of the Murundat and Guaso Giligili. Around the lake we find everywhere evidences of a comparatively recent period of volcanic activity, in cones and craters, the steaming mountain of Buru, faults producing angular outlines (a peculiarity not generally found in districts modelled by surface agents), besides numerous hot springs and steaming rents.

Time will not permit me to tell you how we literally bored our way past the Masai of Naivasha after a ten days' plundering. Suffice it to say that we did surmount all difficulties. I here made up my mind to attempt a dangerous enterprise, namely, to visit the district of Lykipia and Mount Kenia. This seemed to offer the only chance of my seeing that hitherto unseen snow-clad peak, and I consequently turned a deaf ear to the remonstrances of the traders and to the abject entreaties of my cowardly guides Sadi and Muhinna.

My plans were soon matured. Remembering my experience in Urua in my first expedition, I determined to take as small a number as possible, and rely more upon my character as a medicine-man than on men and guns. We foresaw a possible flight, and in consequence took only what was absolutely indispensable. With a select party of thirty men, I set out on my hazardous trip on the 6th of October, leaving Martin to go on to Baringo with my good friend Jumba Kimameta.

Passing out of the meridional trough, with its string of charming lakes, we ascended 8400 feet, to find ourselves once more on the plateau here called Lykipia, and occupied by great numbers of Wa-kwafi. We

now entered a splendid forest of coniferous trees, forming a landscape more suggestive of the heart of Europe than of Equatorial regions.

On the following morning I had the satisfaction of finding myself enveloped in a dense, raw Scotch mist, and the thermometer at the freezing point. My men, however, presented a miserable sight, cringing half dead over enormous fires, and we were compelled to remain in camp till the sun had driven off the mist and warmed up the air. We then continued our way, crossing a beautiful rolling country with grassy hollows and forest-clad ridges, and shortly after reached the Masai (or that clan of the tribe known as Wa-kwafi).

A trial of meekness and patience now commenced such as I hope I shall never again be called upon to endure. Indeed, it would have been absolutely impossible to proceed another step but for the reputation I obtained as a great Lybon or medicine-man. You will perhaps form some idea of what we had to put up with from the fact that a trip which should have occupied little more than ten days extended over a whole month. To detail our trials and troubles would but weary your patience, and I will therefore pass them over in silence. Suffice it to say that we had our reward in traversing one of the most interesting tracts of country to be found in the Equatorial regions.

Our route led us among conifers, heaths, and Cape calodendrons, across hills and treeless plains with streams and rills in endless numbers flowing into the mysterious Guaso Nyiro. We visited a beautiful waterfall on the Urürü or N'Erok, and crossed a magnificent range of mountains. As this range had no name I have taken the liberty to give it that of our respected President. The Aberdare Mountains extend from north to south, and rise to a height of little short of 14,000 feet. Finally, with goods exhausted, and driven almost mad with days of worry and nights of incessant watchfulness, we triumphantly found ourselves standing at the base of Kenia, looking up at its grand proportions but simple outline, quite satisfied that we had not endured in vain.

Kenia rises as a great volcanic cone, nearly 30 miles in diameter at its base, from a thorn-clad plain 5700 feet in altitude. Up to a height of 15,000 feet the angle is very low and the slope is unbroken comparatively by ridge or glen. From that level the mountain suddenly springs into a sugar-loaf peak—the resemblance to a sugar-loaf being made all the more striking by the glittering facets of snow which characterise the uppermost 3000 feet.

The sides of the peak are so steep that the snow cannot lie on many places, the unclad parts showing through the white, as black spots. Hence its Masai name of Donyo Egaré (the speckled or grey mountain).

Unfortunately we were not allowed much time to examine this fine sight, which, like Kilimanjaro, is only to be seen, as a rule, in the morning and evening. The Masai were in great numbers. My goods were finished, and as I had no better stock in hand than a couple of

artificial teeth and some Eno's fruit salt to keep up my reputation as the Wizard of the North, my position became doubly dangerous.

Then, what was even worse, we were subsisting upon the most atrocious food imaginable. A strange disease had attacked the Masai cattle, and was sweeping them off in myriads. In many districts not a head was left, and our customary mode of travelling was with fingers holding our noses through miles of country covered with decomposing bodies.

The consequence of this was, that the people were dying of hunger. In their despair they made my life miserable, demanding, at the point of the sword, medicines to stay the ravages of the disease. For the most exorbitant prices we were able to buy only bullocks at the point of death. Of these only small portions were at all eatable, the rest being absolutely putrid, and even the bones were like mud. Such was our food in Lykipia. It is true that the country swarmed with buffalo, but then we rarely dared fire our guns or leave the camp to hunt.

Our souls began to revolt against this disgusting diet, while our position was daily becoming more perilous. We were compelled to take French leave at last, and fly in the middle of the night. We had almost to make a run of it, and having no loads, we soon put a considerable distance between ourselves and our persecutors. We had further to take the precaution of not going in single file, so as to hide our track. Fortunately we met with success, and on the second day we could breathe more freely in the uninhabited wilderness.

I found myself, however, in a very curious position. We were marching for Lake Baringo, which was only conjectured to be in a particular direction and at a certain distance. The piquancy and romance of the position, however, were most enjoyable, and we had no misgivings, as there were no Masai in front, while game was numerous and sparkling streams everywhere.

Our route lay W.N.W. through dense forest for the most part, which we traversed by means of the buffalo and elephant tracks, assisted by my compass.

On the sixth day from Kenia we once more reached the edge of the plateau, and were overjoyed to find that we had marched straight for Baringo. There it lay glittering several thousands of feet below! I have now looked upon many wonderful lake and mountain scenes in Africa, but not one approaches the striking spectacle which now spread out before me. From the Lykipia Mountains, at a height of nearly 8000 feet, we look down on the meridional trough which extends from Naivasha. The western side of this trough is formed by the abrupt narrow range of Kamasia. Behind springs up the stern face of Elgeyo, from whose summit shades gently away the treeless "Red Plain" of Guas'-Ngishu, while at right angles lie the great mountains of Chib-charagnani. To the north the view is shut in by the serrated outline of

Donyo Silali and the high range of the Suk Mountains. Past these can be descried in the far horizon the isolated masses of Nyiro and the Galla country. Around us, in the more immediate vicinity of the glittering isle-besprinkled lake, rise numerous volcanic hills, a curious assemblage of straight lines, abrupt walls, and sharp angles, all telling their tale of igneous disturbances.

At this place I lost my party, and had to spend the night with two men under very unpleasant circumstances. Fortunately next day I contrived to reach Njemps, and there I found the caravan all safe, though very anxious at my non-appearance. Njemps is a colony of M-kwafi, who have been compelled to take to agriculture and a settled mode of life through the loss of their cattle, and who now live in constant dread of their brethren of Lykipia. Like the Wa-kwafi of Taveta, they have improved enormously in the matter of honesty with their new mode of life, and their district has become an important business centre for the ivory traders.

On arrival I lost no time in making my preparations to continue my journey to Kavirondo. This undertaking seemed only too likely to prove one of the most hazardous. The last three caravans which had entered that region had each lost more than 100 men—these having been killed in the numerous fights that took place—and yet I proposed to penetrate to Lake Victoria Nyanza with only 100 men altogether. Muhinna, who knew it well, was so thoroughly frightened that he feigned extreme illness to avoid going; and so profound was my detestation and distrust of him, that I was only too glad to leave him.

On the 16th of November, leaving all the weak and incapable behind, and taking only such goods as were required, we started. Our course bore almost due west. We first crossed the Kamasia Mountains to the narrow valley beyond, in which a considerable stream flows to Lake Samburu. We then ascended the Elgeyo precipices to a height of 7750 feet, and entered upon the plateau of Guas'-Ngishu, which extends in treeless unbroken monotony, bounded by the low hills near Kabaras and the great volcanic mountain of Masawa or Elgon—a counterpart of Kenia without the upper peak. To the N.W. we got a glimpse of a very high mountain, Donyo Lekakisera, described as occasionally streaked with snow. The inhabitants of Kamasia and Elgeyo are a race allied in language and certain customs to the Masai, but they differ from them in the fact that they have settled habitations and subsist chiefly by agriculture. Guas'-Ngishu, on the other hand, was formerly occupied by Wa-kwafi. These, however, have been scattered by their brethren of the plains and their cattle swept off. They have in consequence taken refuge in Kavirondo where, too proud to work, they live like paupers and are rapidly spoiling the Wa-kavirondo.

Five weary marches across this shelterless region brought us to the district of Kabaras in Kavirondo; and for the first time since leaving

Taveta we revelled in such luxuries as fowls and eggs, Indian corn, sweet potatoes, ground-nuts and other good things which tasted simply delicious after the fare of the Masai country.

I was agreeably surprised to find that the Wa-kavirondo were a pleasant race, though dangerous when excited or drunk; and I soon proved that the traders must have had themselves to blame if they fought.

Both men and women go about in an almost nude condition, the only apology for a dress being worn by the married women in the shape of a small bunch of cord worn in the fashion of a tail—to which indeed it has a ludicrous resemblance.

Though the unity of this tribe is suggested by the universal similarity of their manners, mode of life, houses, &c., yet it is clearly formed of two distinct races. The people to the north are allied to the Wawahili races, while those further south clearly belong to the Nile tribes—a fact which their language indisputably indicates.

The country itself surrounds the north-east aspect of Victoria Nyanza. It extends to within 40 miles of the Nile and does not reach further than 30 miles south of the Equator. My observations indicate that a considerable part of Kavirondo lies where Victoria Nyanza is placed on our maps.

From Kabaras three marches brought us to the large town of Kwa-Sundu on a fine river named the Nzoia. Finding food here in marvellous abundance at ridiculously low prices I camped the men and with a small party proceeded towards the lake. We passed through the most densely populated region I have yet seen in Africa, and after a variety of adventures—such as checkmating attempts to block our way, and to enforce compulsory stoppages—in one of which adventures I had a narrow escape from being speared—I had the supreme satisfaction of drinking the waters of Victoria Nyanza some 45 miles east of its outlet to the Nile. This event happened in the district of Samia on the 10th of December.

Unlike most other African lakes, the Nyanza is not bounded by ranges of mountains. The ground descends gradually to its shores; and peacefully the water laps the muddy and marshy beach, though not unfrequently it is lashed into the furious aspect of a troubled sea.

I would now have pushed on to the Nile, but the good fortune which so far had happily attended my footsteps began to desert me. My stores were exhausted and I was attacked by fever. I did not know what reception I might meet with in the new country beyond. I determined therefore to turn back rather than risk detention or failure.

On my return to Kwa-Sundu I began to recover a little, and then I celebrated Christmas Day—not with the prosaic adjuncts of roast goose and plum-pudding—but with the more delicious inward feast of satis-

faction at the thought that my mission was accomplished and that my face was now homeward.

I adopted a return route through a more northerly district for the purpose of visiting Elgon or Ligonyi. At this splendid mountain, which almost reaches the snow-line, I arrived after a three days' march through the district of Masawa, which had lately been devastated by a coast caravan, in which therefore we had everything to fear from the revengeful feelings of the natives.

The chief feature of Elgon is its artificial caves. These are extraordinary in number and vast in extent. They are cut out of a very compact volcanic agglomerate. They all occupy one particular horizon near the base of the mountain and numbers of them are occupied by whole villages with their cattle. That such was not their original object is shown by the nature of the excavations which extend far away into utter darkness. Their number, and great size, their occupying a certain horizon, and the fact that the present inhabitants have no tradition regarding them lead me to conclude that they have been mines in some very remote period. By whom the mines could have been worked I cannot conjecture, and the subject will remain doubtless for some time to come a problem for the curious.

Though I was burning to make some more careful investigation of these wonderful phenomena, I was compelled perforce to hurry on. No food was to be got and an uninhabited plain lay before us which had to be traversed with no better guide than my compass.

The last day of the year was marked by one of those interesting episodes which enliven African travel and make the life endurable. I had planted six balls in various parts of an old buffalo bull for the purpose of supplying our larder to duly celebrate the day. These had been sufficient to bring him to the ground, and thinking his days ended I went up to secure my prize. A few seconds later I *went up* in a sense I had not anticipated. Caught on the horn of the infuriated brute, I was promptly propelled skyward and turning a graceful somersault in mid air I came down unconscious. The shock of the fall brought me round somewhat, and raising my head slightly, I found myself under the disagreeable gaze of the bull. Seeing me move he was about to give me my quietus, but at this moment fortunately a gun was fired by my faithful servant Brahim. This had the effect of momentarily diverting the enemy's attention, and as he turned round, I staggered a bit aside and simultaneously we dropped, the bull dead, and I fainting from loss of blood. In the evening I recovered sufficiently to celebrate in buffalo soup the end of the year, and my providential escape from untimely closing my career. Next day I enjoyed the unwonted luxury of being carried on a stretcher, where I could amuse myself with the jocularities of my carriers, who in allusion to their wages named me "their dollars," and incited each other to hurry up and not leave their dollars behind in the wilderness.

Skirting the base of the high range of Chibcharagnani we soon reached Elgeyo, recrossed Kamasia, and once more entered Njemps.

It was quite a month before I was able properly to walk again. But as soon as I could effectively use my limbs, I started off for a fortnight's trip to examine the country round Baringo, and if possible, to shoot an elephant. I was successful in both objects and returned loaded with hunting trophies and happy in the possession of new geographical material.

My luck, however, in the matter of good health had now fled. I had just recovered from fever to be nearly killed by a buffalo; and I had only got over the effects of that adventure to fall a prey to the fell disease dysentery.

As the first symptoms appeared in me we had just commenced the hazardous task of repassing the Masai country. Our route lay direct to Naivasha by way of the long narrow trough which connects Baringo with that lake and includes in the space between the two salt lakes of Nakuro and Elmeteita. On the first day I was able to walk. On the second and third I had partly to ride. By the fourth I had to ride entirely. After that I completely collapsed and had to be held on the donkey while we pushed on to Naivasha. Further than that I could not proceed, and for two days I lay at death's door. At this time the only European article I had was tea; even our salt was finished weeks before.

A two days' stay pulled me round a little, and as the men were at the starving point we started for the top of the plateau to try and get food from the Wa-kikuyu. In this we were successful. There, however, I suffered a relapse, and for two months I hovered between life and death under circumstances which added tenfold to the horrors of my situation. My sole food was clear soup made from diseased meat supplied by the Masai. I lost all count of the days. Owing to the wet and bitter cold I was compelled to shut myself up in a dark grass hut without fire or light, and I could not drag myself even to the door.

At last, finding myself getting no better, I concluded that as I was bound to die if I remained there, I might as well do so in making an attempt to reach the coast. A hammock was rigged up, and more dead than alive I left the cold bamboo-clad heights of Mianzini and started coastward.

To my agreeable surprise, I began to improve rapidly, and making forced marches we reached Ngongo-a-Bagas. Thence striking westward through the dangerous district of Kaptè, we reached Ulu. We were now among friendly natives, and the wearying worry and dangers were past. I was, however, still unable to stand on my legs; our goods were nearly exhausted, and a famine was devastating the land. It was consequently necessary to push on with all haste. The men, now completely regenerated, worked like heroes. Not a grumble was

heard, not a remonstrance expressed. They tramped on from morn till dewy eve, often in straits for water and frequently on less than half rations. In this manner we crossed the sterile wastes of Kikumbuliu, and performed feats of travel probably never equalled by a caravan of the same size.

On the 26th of May we once more camped at the base of Ndara, and the 2nd day of June found us emerging from the wilderness and greeting our friends at Rabai.

And so ended the labours of your expedition, in course of which I had penetrated through the most dangerous tribes in Africa, traversed a region unequalled in that continent for the interest and magnificent variety of its topographical features, and for the unique peculiarities of its inhabitants. I had done all this without the loss of a single man by violence or the necessity of shooting a single native, and thus I had illustrated (as I am proud to say I had done before) the truth of my motto, "He who goes gently goes safe; he who goes safe goes far."

After the paper,

The Right Rev. BISHOP HANNINGTON wished to pay his tribute of admiration to Mr. Thomson for the wonderful journey that he had performed. He himself had not done much in the way of African travel, having only been to Victoria Nyanza and back by a route that was very well known, but he had seen enough to know how tremendous were the difficulties to be encountered in crossing some of the desert tracts which Mr. Thomson had referred to. The Masai were a terror to the other natives all round the district, and it was marvellous to think that he should have penetrated through the Masai country with so small a caravan and have returned without lifting his hands against the natives, and without losing any of his own men. He himself had passed through some districts where no white man had ever been seen before. The people would look at him with most unfeigned astonishment, and the remark that they generally made was, "He is not very beautiful." He certainly was able to return the compliment. One great chief, Roma, to the south of the Nyanza, said that he would be glad to see him, and he sent two oxen as a present. On his arrival at the village he saw a long procession of twelve medicine men carrying antelopes' horns; behind them came Roma, very nearly seven feet high, and behind him about twelve of his wives, likewise carrying antelopes' horns. They came down close to the tent and then stopped. Roma sent a man to say, "I want you to put a seat for me in the middle of your tent." He then glided into the tent, and the medicine men and wives put the horns around him in a kind of magic circle. Those horns were filled with rancid butter mixed with blood, and to make himself secure against all spells, Roma had anointed himself with castor-oil from head to foot, so that he shone just like a looking-glass. He soon began to ask the Europeans to stop in his country, and in fact the big chiefs were always anxious to be taught, but they would be sure to extort loads of beads out of the traveller.

Mr. F. W. W. HAYDON added his testimony to the accuracy of the descriptions which Mr. Thomson had given. His own experience had been obtained when serving on the west coast of Africa in the old slave-trading days, and had to make treaties with the native kings.

Commander V. L. CAMERON said that Mr. Thomson's journey had done more for the geography of Equatorial Africa than any other expedition since Stanley's descent

of the Congo. He wished to offer Mr. Thomson, therefore, his hearty congratulations on the success he had achieved. The whole of the Masai country had previously been almost a *terra incognita*, and it was curious to notice that the idea with which the Germans were working on the West Coast was corroborated by Mr. Thomson's travels. That idea was that by means of the volcanic chain a healthy route might be found from the Cameroons into the interior. Some people, among whom Captain Burton was one, thought that at one time a great volcanic chain stretched across the continent north of the Victoria Nyanza. The President had alluded to the British Commercial Geographical Society, which now had a great number of members, and he wished to thank his Lordship for the kind words he had spoken about it. It had occasionally been supposed that the British Commercial Geographical Society was in opposition to the Royal Geographical Society, but it would ill become him, who owed his geographical reputation to the latter Society, to do anything against it. His object was to bring the specially commercial aspects of geography before men of business in the City, and as similar societies had been established in Germany, France, and other countries, he thought it would be advantageous to England to have one in London.

Mr. F. GALTON said that the paper afforded some curious additional information with respect to the great depression or trough that runs from north to south over so large a part of the earth's surface, in this meridian, and which begins with the Dead Sea, extends down the Red Sea, and ends at Tanganyika. The rounding off of the north-eastern corner of Victoria Nyanza was a new and acceptable piece of information. Those members of the Society who recollected the time when Speke and Grant came back, would remember the great interest that was then excited by Lake Baringo. Known to Speke only by native rumour, its locality could not be fixed, and it was at last delineated as an ear-like appendage to the north-east of Victoria Nyanza, though it looked unnatural to so indicate it. No map maker had ever succeeded in drawing a map of an untravelled country that looked natural. The account which Mr. Thomson had given of the huge cave dwellings was most extraordinary. They occurred in hard conglomerate rock, very difficult to quarry; they were 30 feet high, and extended far away into the darkness, much further than Mr. Thomson had time to penetrate. The caverns were supported by columns, and must have been hewn out by some race long since extinct, and who apparently had left no further tokens of their work and existence. What these caves would reveal when examined by artificial light, and what scorings there were on the rocks, were subjects for some future explorer. Perhaps to the general reader one of the most curious parts of the paper was the description it gave of the great beauty of much of the country. Africa as a whole was not a picturesque country, but the sides of Kilimanjaro and Kenia seemed to afford many scenes of great artistic interest; and the favourable impression which Mr. Thomson had brought back was abundantly confirmed by Mr. Johnston, who was at present on the slopes of Kilimanjaro making sketches of the scenery. It had been his (Mr. Galton's) good fortune to listen to many most interesting papers read before the Society, but he had never heard one that was more full of charm and more instructive than that which Mr. Thomson had just read.

Mr. RAVENSTEIN said that Mr. Thomson's explorations were a great addition to our knowledge of Equatorial Africa, and no other expedition ever sent out by the Society had brought back a larger amount of new and most important information at so small an expense. Several travellers, such as Baron Von der Decken and Thornton, had come into contact with the Masai, but Mr. Thomson had gone right across the country. The Gallas were, according to some, very bad, immoral, cruel, and barbarous, but even among the Gallas the Masai had a bad reputation, and no greater insult could

be offered to a Galla than to ask him if he was like a Masai. Mr. Thomson had not only verified the position of Kenia and given it a definite place on the maps, but he had made careful observations of latitude and longitude, and thereby enabled a delineation to be made of the Masai country with its volcanoes, its old lake basins, and that curious lake Baringo. He had not, however, told them whether Baringo drained into any other lake.

Mr. THOMSON said it was quite an inland basin nearly 3000 feet above the sea-level, and not salt.

The PRESIDENT said the evening's proceedings must create increased confidence in the President and Council of the Royal Geographical Society. Rather more than 3000*l.* had been laid out on Mr. Thomson's expedition, and he thought the Fellows would approve of the action of the Council in so doing and especially of their choice of the agent to carry out their views. Of course they would hardly have entrusted the conduct of so important and costly an expedition to a man who was utterly inexperienced, but Mr. Thomson in his expedition to the other side of Lake Tanganyika proved that he was admirably fitted for encountering the tremendous dangers which it was known he would meet with in the Masai country. The Masai were to all that region very much like the Huns and Vandals at the beginning of the Christian era to Europe; they ravaged the country from the shores of Victoria Nyanza to the Indian Ocean, and to have travelled among such a people under such difficulties and to have escaped without having recourse to violence argued that Mr. Thomson was a man of undaunted courage, of extraordinary resources, and that he possessed all the qualities necessary for African travel. Of course the paper only gave an account of a very small part of Mr. Thomson's adventures, and related but little of the scientific results of his expedition, but Sir Joseph Hooker was of opinion that the botanical collections which Mr. Thomson had made were of great scientific importance, showing that some genera and species of Abyssinian trees and representatives of the flora of the Cape of Good Hope here met on the equator. In Mr. Thomson the Society had a man of great courage, enterprise, and intelligence, and one who in addition possessed the knowledge necessary for the making of a good geographical explorer, and he (the President) wished to congratulate both Mr. Thomson and the Society on the result of an expedition which had been looked forward to with so much interest. No doubt there were still dangers to be encountered in completing the geography of Africa, but probably no expedition remained to be made of equal interest to that which Mr. Thomson had just described, and he was sure that the Fellows of the Society would look forward with the greatest interest to the work which Mr. Thomson was preparing for the press.

The following are the observations which have been supplied by Mr. Thomson for the compilation of his map, in addition to a rough traverse survey, and material collected from native sources:—For latitude: 7 meridian altitudes of ☉, and 40 meridian altitudes of * s; for error of watch: 11 sets of equal altitudes of ☉; for local time: 7 sets of altitudes of ☉, and 4 sets of altitudes of * s; for ☉'s true bearing and error of compass: 2 sets of altitudes of ☉; for longitude: 5 sets lunar distances ☉ and ☾; 5 sets lunar distances ☽ and ♃; 1 set lunar distance ☽ and α Virginis; 3 observations of the eclipse of ♃'s first satellite; for difference of level: 123 aneroid readings, 37 mercurial barometer readings, 48 hypsometric observations. All the altitudes were observed in a George artificial horizon, and the instruments employed in taking the above were:—One 6-inch sextant, 1 half-chronometer watch, 1 telescope of 2½ inch clear aperture, 1 prismatic compass, 1 George mercurial barometer, 1 aneroid, 1 hypsometer.—[JOHN COLES, *Instructor in Practical Astronomy and Surveying*, R. G. S.]

Journey from Mozambique to Lakes Shirwa and Amaramba.

By HENRY E. O'NEILL, H.M. Consul, Mozambique.

Map, p. 758.*

PART II.—EXPLORATION OF THE NORTHERN AND NORTH-EASTERN SHORES OF LAKE SHIRWA, AND DISCOVERY OF THE LAKES AMARAMBA AND CHIÛTA, THE TRUE SOURCES OF THE LUJENDA RIVER.

SOME months before I left Mozambique on my present journey, I had been collecting information respecting the line of route along which I intended to pass, more especially with regard to the eastern and northern shores of Lake Kilwa, or Shirwa, and the supposed connection of this lake with the Lujenda river. My inquiries, made from sources I had no reason to discredit, resulted in my receiving a great deal of information which contradicted in many main particulars that which has been hitherto accepted respecting the northern limit of this lake and the sources of the Lujenda. When sifted, the chief points in which my information differed from that by which we have, up to this, been guided, were the following:

1. Immediately north of Lake Kilwa, it was reported to me, there were two smaller lakes called Amaramba and ChiÛta.
2. The Lujenda river was said not to approach Lake Kilwa, but to commence at the northern extremity of Lake Amaramba, of which it was the outlet.
3. Between lakes Kilwa and ChiÛta there was said to be a distinctly elevated ridge, across which the waters of Lake Kilwa never passed.
4. From information I received a little later, I was also led to

* The map is based upon seven detached topographical sketches, the diary, and the numerous astronomical observations of Mr. O'Neill. Information from other sources has been introduced sparingly. In laying down Mr. O'Neill's route we have adopted the whole of his observed latitudes, that for Namlugu alone excepted. "Namlugu" is probably an error, as an inspection of the inset map, showing Mr. O'Neill's route from Namlugu to Egwoli shows, and the observation was perhaps made at the camp, a couple of miles to the south-east of Egwoli. All longitudes, up to Shalawe, and all those beyond, being the means of lunars and chronometer observations (Mkuburo alone excepted), have been adopted. Najiwe (Nambewe) and Yano, depending upon the chronometer alone, have been shifted five miles to the east, whilst Makanyero, derived from six lunars, has been shifted as much to the westward. The longitude of Nawaruma, derived from no less than 45 sets of lunars, unfortunately reached us too late to be utilised in the compilation of the map. The whole of the route from the coast to the lake had then been plotted and placed in the hands of the engraver. Nawaruma, on our map, however, occupies its true position relatively to the Namuli Peaks. The adoption of the longitude resulting from these lunars would necessitate the rejection of all observations for longitude to the northward and westward of it, and would have completely deranged the topographical features of the country, as they appear upon Mr. O'Neill's own sketches. The 45 sets of lunar observations are, however, reported by Mr. Coles to be perfectly satisfactory and the new position for Nawaruma (lat. 15° 41' 22" S., long. 37° 5' 34" E.) correct. The present map must be considered, therefore, as provisional only.—[E. G. RAVENSTEIN.]