ahead of Barth's in the matter of illustrations. These are as accurate as photographs, and yet much clearer. More than any previous traveller who had written on Africa, Schweinfurth is able to bring to our mental vision the different aspects of vegetation. He describes the tree-lilies (*Dracænæ*), with their bouquets of leaves like bayonets and their short, woody stems, the Candelabra euphorbias, the coral red aloes, the dragon-like *Bucerosia,* the leathery *Sanseviera,* and the gigantic clumps of the grass-green *Salvadora,* which characterise the northern flanks of Abyssinia.

In another place he describes acacia groves on the right bank of the White Nile above Khartum, with their enormous white bulbous thorns,[1] and their oozy lumps of amber-coloured gum. He notes the remarkable fact that little, if any, of the floating vegetation of the Upper Nile reaches Egypt. He describes the jungles of papyrus, "fifteen feet high," the floating grass barriers and the sudd (which he calls *sett*); the *suf* reeds, the water-ferns, the floating *Pistia stratiotes* (like a pale-green lettuce), the duck-weeds, the beautiful white and blue waterlilies. When he reached the vicinity of the water-parting between the Nile and the Congo, he had entered the forest region of West-Central Africa. This mighty tropical forest has no great reverence for geographical boundaries, but overlaps in several places the watershed of the Nile, while

[1] Pierced by the ants so that they become whistles played on by the wind.

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"PAPYRUS, FIFTEEN FEET HIGH."

of course it exists in patches in the basins of the Shari, the Benue, the Niger, and on the coast belt of Upper and Lower Guinea. Perhaps the most marked feature of it, the clearest indication of its West African nature, is the existence of the climbing *Calamus* palm, which is never found in typical East Africa. The wonderful "gallery"[1] forests are described as follows:—

"Trees with immense stems, and of a height surpassing all that we had elsewhere seen (not even excepting the palms of Egypt), here stood in masses which seemed unbounded, except where at intervals some less towering forms rose gradually higher and higher beneath their shade. In the innermost recesses of these woods one would come upon an avenue like the colonnade of an Egyptian temple, veiled in the leafy shade of a triple roof above. Seen from without, they had all the appearance of impenetrable forests, but, traversed within, they opened into aisles and corridors which were musical with many a murmuring fount. Hardly anywhere was the height of these less than seventy feet, and on an average it was much nearer one hundred; yet, viewed from without, they very often failed to present anything of that imposing sight which was always so captivating when taken from the brinks of the brooks within. In some places the sinking of the ground along which the gallery-tunnels ran would be so great that not half the wood revealed itself at all to the contiguous steppes, while in that wood (out of sight as it was) many a 'gallery' might still exist."

[1] First of all revealed to our notice by the Italian explorer, Piaggia, who succeeded Miani and preceded Dr. Schweinfurth.

Most of these gigantic trees, the size of whose stems exceeds any European forest growth, belong to the order of the *Sterculiæ, Boswelliæ, Papilionaceæ, Rosaceæ,* or *Cæsalpiniæ;* to the *Ficaceæ,* the *Artocarpeæ,* the *Euphorbiaceæ,* and the varied order of the *Rubiaceæ.* Amongst the trees of second and third rank are a few *Araliacea,* large-leaved figs, brilliant-flowered Spathodeas, Combretums, and Mussændas, as well as innumerable other rubiaceous or papilionaceous plants. There is no lack of thorny shrubberies; "and the *Oncoba,* the *Phyllanthus,* the *Celastrus,* and the *Acacia ataxacantha,* cluster after cluster, are met with in abundance." "Thick creepers climbed from bough to bough, the *Modecca* being the most prominent of all; but the *Cissus,* with its purple leaf, the *Coccinea,* the prickly *Smilax,* the *Helmiæ,* and the *Dioscoreæ,* had all their part to play. Made up of these, the whole underwood spread out its ample ramifications, its great twilight made more complete by the thickness of the substance of the leaves themselves."

Down upon the very ground, again, there were masses, all but impenetrable, of plants (mainly *Zingeberaceæ* or else Arums) growing large gorgeously painted leaves which contributed to fill up the gaps left in this mazy labyrinth of foliage. First of all there were the extensive jungles of the *Amomum* and the *Costus,* rising full fifteen feet high, and of which the rigid stems (like those of stout reeds) either bar out the progress of a traveller altogether, or admit

[*Face page* 221.

A Path through the Forest.

him, if he venture to force his way among them, only to fall into the sloughs of muddy slime from which they grow.

"And then there was the marvellous world of ferns, destitute indeed of stems, but running in their foliage to some twelve feet high. Boundless in the variety of the feathery articulations of their fronds, some of them seemed to perform the graceful part of throwing a veil over the treasures of the wood; and others lent a charming contrast to the general uniformity of the leafy scene. High above these there rose the large, slim-stemmed *Rubiaceæ* (*Coffeæ*), which by regularity of growth and symmetry of leaf appeared to imitate, and in a measure to supply the absence of, the arboraceous ferns. Of all the other ferns the most singular which I observed was that which I call the elephant's ear. This I found up in trees at a height of more than fifty feet, in association with the *Angræcum* orchis and the long gray beard of the hanging *Usnea*."

Whenever the stems of the trees failed to be thickly overgrown by some of these different ferns, they were rarely wanting in garlands of the crimson-berried pepper. Far as the eye could reach, it rested solely upon green which did not admit a gap. The narrow paths that wound themselves partly through and partly around the growing thickets were formed by steps consisting of bare and protruding roots which retained the light, loose soil together. Mouldering stems, thickly clad with moss, obstructed the passage at wellnigh every turn. "The air was no longer that of the sunny steppe, nor that of the shady grove; it

was stifling as the atmosphere of a palm-house. Its temperature might vary from 70° to 80° Fahr., but the air was so overloaded with an oppressive moisture exhaled by the rank foliage that the traveller could not feel otherwise than relieved to escape."

In the second volume of his work Schweinfurth adds: —

"The cumbrous stems are thickly overgrown with wild pepper, and the spreading branches are loaded with bead moss (*Usnea*) and with that remarkable lichen which resembles an elephant's ear. High among the boughs are the huge dwellings of the tree-termites (white ants). Some stems already decayed serve as supports for immense garlands of *Mucuna* (a bean), and overhung by impenetrable foliage, form roomy bowers, where dull obscurity reigns supreme. Such is the home of the chimpanzee."

Schweinfurth might have extended his researches further into the unknown but for a disastrous camp-fire in the Dyur country, which destroyed the greater part of his collections, journals, drawings, and instruments. Eventually, with such of his collections as he was able to save from the conflagration, Schweinfurth turned his steps northward again, and reached Europe in 1871. He subsequently did much to increase our knowledge of the botany of Abyssinia and Arabia, but never resumed the rôle of African explorer.


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SCHWEINFURTH'S MAP.

# CHAPTER XIX

## STANLEY CONFIRMS SPEKE

DR. SCHWEINFURTH evidently shared Burton's opinions on the subject of the Victoria Nyanza. Speke's great discovery may be said to have reached its low-water mark of depreciation in the map issued in 1873 to illustrate Schweinfurth's book, "The Heart of Africa." On this map a fairly correct estimate of the shape and area of the Albert Nyanza is given, together with some hint of the abrupt commencement of the Congo watershed west of Lake Albert. But the mountainous character of Unyoro is greatly exaggerated, and the area of the great Victoria Nyanza is taken up by five lakes and lakelets. Speke was dead, and Grant was tired of asseverating that the Victoria Nyanza was one huge continuous sheet of water.

In 1873, just as Dr. Schweinfurth's book was being published, Henry Moreton Stanley, an Americanised Welshman, had returned to London from the discovery and relief of Dr. Livingstone. Soon after his return arrived the news of Livingstone's death. The sorrow over this loss, and enthusiasm at the half-finished discoveries on the great mysterious river

which Livingstone believed to be the Nile and everyone else the Congo, caused the "Daily Telegraph" and the "New York Herald" to unite in furnishing funds for a great expedition which should attempt to clear up many African problems. This expedition Stanley (who therefrom rose to be the greatest of African explorers) commanded.

Starting from the coast opposite Zanzibar, whence so many expeditions had set forth since Maizen[1] and Burton had made the first attempts, Stanley travelled by the Unyamwezi route to the Victoria Nyanza, the south shore of which he reached at the end of February, 1875. On the 8th of March in that year Stanley (having put together a boat which he brought in sections, and which he named the *Lady Alice*) started—accompanied by eleven of his men—on a most adventurous voyage along the eastern and northern shores of the lake. He coasted and named the important south-eastern arm of the Victoria Nyanza, which is known as Speke Gulf. Passing rather hurriedly along the northeast coast of the lake, he made one great blunder, in that he overlooked the very narrow entrance to Kavirondo Bay (which is almost a separate lake), and created instead a broad northern gulf which he called Ugowe Bay. Ugowe Bay actually is the native name of quite a small shallow inlet on the Uyoma coast. Stanley skirted at some distance the much indented shores of Busoga, passed through what is now

[1] A gifted French explorer who attempted to forestall other expeditions in discovering the Central African lakes. He was murdered about a hundred miles inland from Zanzibar.

known as Rosebery Channel, and so on up Murchison Gulf to the native capital of Uganda, then called Rubaga (now known as Mengo). Here he had a splendid reception from Mutesa, and here he met Édouard Linant de Bellefonds,[1] a Belgian in the Egyptian government, who had been sent by Gordon Pasha to report on the state of affairs in Uganda.

Mutesa having agreed to send a large fleet of canoes to transport all Stanley's expedition to Uganda, Stanley then resumed his circumnavigation of the lake, following the western shore. Passing between the mainland of Karagwe and the little island of Bumbiri, he was fiercely and unprovokedly attacked by the natives of that island, who were a savage people ruled over by light-coloured Bahima chiefs. Narrowly escaping disaster, he rushed through the opposing savages, got into the *Lady Alice*, and his men paddled off with boards which they tore up from the bottom of the boat. Having rejoined his expedition, which he had left at a place called Kagehi, near to the modern German station of Muanza, Stanley made one more blunder in his configuration of the lake (which he was the first to set right years afterwards). Deceived by a chain of islands, he curtailed the Victoria Nyanza of its southwestern gulf, which extension of the lake Stanley subsequently named after Emin Pasha.

Reinforced by Mutesa's fleet of canoes, Stanley's

[1] Younger brother of Adolphe Linant, an early Nile explorer of 1827 and 1828.

entire expedition was saved the long march through the Hima kingdoms to the west of the Victoria Nyanza. But on his return journey to Uganda he was obliged to stop and give a severe lesson to the Bumbiri islanders. These warlike people barred the passage with their canoes. Stanley had been warned of this opposition by the natives of Iroba on the mainland. Stanley seized the king and two chiefs of Iroba as hostages, who should negotiate a peace between himself and the king of Bumbiri. These hostages caught for him the king's son. At this moment a large reinforcement of Baganda canoes arrived, and volunteered to go to Bumbiri and negotiate. But they were attacked, and driven off with some loss. Stanley, therefore, was obliged to inflict punishment. On the 4th of August, 1875, he attacked Bumbiri, and drove its natives to the interior of the island. The expedition then pursued its way along the west and north coasts until they entered Napoleon Gulf and arrived at the Ripon Falls, where the Nile leaves the lake. Here they found Mutesa encamped with a large army, engaged in one of his periodical wars with Unyoro.

Stanley not only ascertained the approximate area and shape of the Victoria Nyanza, but he was able to define with some approach to accuracy its principal islands and archipelagoes. After his journey there was no longer any doubt as to Speke's great discovery. The question was settled once and for ever.

Leaving Uganda in December, 1875, Stanley accompanied an expedition sent by Mutesa to the coun-

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THE VICTORIA NYANZA: UGANDA GOVERNMENT STEAMER IN THE OFFING.

tries then governed by the Banyoro at the base of Ruwenzori. Amazing to relate, Stanley was actually encamped under the Ruwenzori range (called, by the Baganda, Gambaragara), and yet was unaware of the importance of his discovery. He guessed that the mountain in front of him might be from fourteen to fifteen thousand feet high, and he called it Mount Edwin Arnold. What is so extraordinary about the matter is that he relates (as though he disbelieved them) the stories of the natives to the effect that white stuff and intense cold characterised the upper parts of this mountain range, yet he evinced little or no curiosity to ascertain the truth of these statements. Of course at the time of his visit all the thirty miles of snow and glaciers were concealed under heavy clouds.

From the vicinity of Ruwenzori the party made its way to Lake Dweru, which Stanley named Beatrice Gulf. This he learned from the natives was (as it is) but a loop of a much larger lake. Years afterwards Stanley was to realise that he had discovered a portion of Lake Albert Edward. Quitting these regions of mysterious lakes and mountains, he journeyed much more prosaically past the volcanoes of Mfumbiro and the Hima kingdoms of Karagwe to Lake Tanganyika, which he reached at Ujiji on its northeast coast. On this portion of the journey Stanley added a good deal to our information regarding the ultimate source of the Nile, the Kagera, though he was somewhat misled by native information, and

perhaps by exaggerated swamps, into the creation of a non-existing lake, which he called the Alexandra Nyanza. His subsequent route across Africa from Tanganyika to the mouth of the Congo does not concern the present narrative.

One interesting result of Stanley's explorations of the Victoria Nyanza, Uganda, and Unyamwezi was that Mr. (now Sir Edwin) Arnold [1] was inspired to propose a Cape-to-Cairo overland telegraph wire to pass via the Zambezi, Lakes Nyasa and Tanganyika, to Uganda and the Egyptian Sudan, thereby forestalling both Cecil Rhodes and the author of this book in the advocacy of a continuous line of British communications between South Africa and Egypt.

It has been mentioned that Stanley's letter to the "Daily Telegraph," summoning missionaries to the court of Mutesa, decided the fate of Uganda. This letter met with an immediate response, and in 1876 two parties of English missionaries were sent out by the Church Missionary Society. The Rev. G. Lichfield, Mr. C. W. Pearson, and Dr. R. W. Felkin were despatched by the Nile route. They travelled from Suakin to Khartum, and thence, by the help of Gordon Pasha, to the Albert Nyanza and Uganda. The other half of the missionary party (Lieutenant Shergold Smith, R.N., the Rev. C. T. Wilson, and, amongst others, Alexander Mackay, a Scottish engineer) made the journey by way of Zanzibar and Unyamwezi.

[1] In a pamphlet written in conjunction with Mr. Kerry Nichols and Colonel J. A. Grant, published in 1876, by William Clowes.


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STANLEY'S IDEA OF THE VICTORIA NYANZA, 1880.

Some of these missionaries were detained at the south end of the Victoria Nyanza. Lieutenant Shergold Smith — a man of great promise — journeyed across the lake in a boat and reached Uganda; but soon after his return to the south end of the lake he was killed in an attack made by the natives of Ukerewe (Bukerebe) on the Arab traders. Leaving Mackay, Lichfield, and O'Neil in Uganda, C. T. Wilson and R. W. Felkin decided to return to Europe, taking with them envoys whom Mutesa wished to send to England. On their return journey they were greatly troubled by the sudd, which then — as frequently before and since — practically blocked the navigation of the main Nile. They therefore made a very interesting overland journey through Darfur and Kordofan, and thence back into Egypt.

# CHAPTER XX

## GORDON AND HIS LIEUTENANTS. — JUNKER AND THE NILE-CONGO WATER-PARTING

IN 1874 Colonel Purdy and Colonel Colston (Englishmen) were despatched by the Egyptian government respectively into Darfur and Kordofan for surveying purposes. By their expeditions a good deal of the country along these half-dry affluents of the Bahr-al-Arab and the water-parting between the Shari and the Nile was explored and made known. Their work was added to in some respects (1875–1876) by Sidney Ensor, a civil engineer, who surveeyed the route for a railway from Wadi Halfa to Al Fasher, the capital of Darfur.

The energetic work undertaken by Sir Samuel Baker of suppressing the slave-trade in the Equatorial Province of the Egyptian Sudan was carried much further by the celebrated Charles Gordon, who was destined to die at Khartum under circumstances conferring on him lasting fame. Gordon Pasha (as he subsequently became) had, as it is hardly necessary to state, been an engineer officer. It was thought that his appointment to the supreme government of the Egyptian Sudan (an appointment which Baker had not

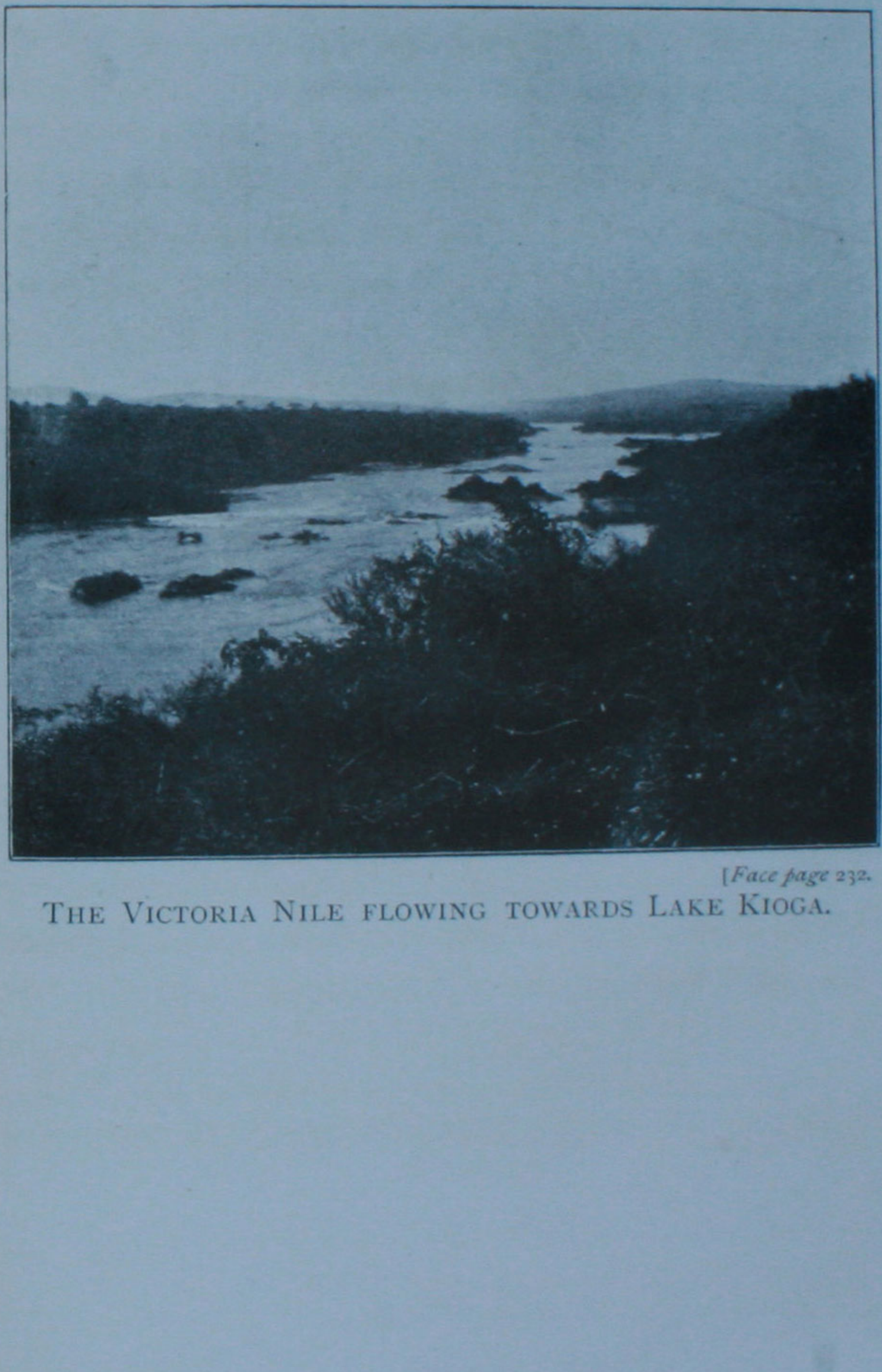
held, since he worked with an Egyptian Governor-General at Khartum) would — as it did — materially assist the improvement of communications. Gordon made an interesting survey of the country between Suakin and Berber on the Nile, and together with Lieutenants Watson and Chippendall mapped the main Nile from Khartum to Gondokoro and Lake Albert. He also caused the circumnavigation of that lake to be effected.

Soon after Gordon had taken up the work begun by Sir Samuel Baker, a curious theory had been started concerning Lake Albert Nyanza. In those days, when so much personal feeling was very naturally imported into Nile exploration, and one great explorer vied with another, theories were often started by A to minimise the work of B or to exaggerate the results of A's own discoveries. It has been already recounted how Burton, piqued by Speke's great discovery of the Victoria Nyanza, which might have fallen to Burton's own lot had he been less crippled with fever, subsequently strove to prove the non-existence of that lake as a continuous sheet of water. Speke in the most wonderful manner had not only discovered the Victoria Nyanza, but had, by the collection of native information and the deductions he drew therefrom, made, on the whole, a remarkably accurate forecast of the Nile system in the region of the equatorial lakes. He had put Lake Albert on the map, merely from report, in a shape and position closely in accordance with actuality. Not, however, being able to visit this lake him-

self, he had handed the task over to Sir Samuel Baker, who had discovered the Albert Nyanza, but had not been able to ascertain its area and shape. Both Speke and Baker, however, assumed that the Victoria Nile entered Lake Albert, and quitted that lake as the main stream of the White Nile. Neither explorer, however, nor most that came after them, could state positively that they had mapped the Victoria Nile along its whole course from the Ripon Falls to Lake Albert, nor had they traced the course of the Nile from Lake Albert northward to Gondokoro. Therefore in the early seventies some theorist had started the ingenious idea that Lake Albert belonged either to the system of the Congo or the Shari, and that its waters drained away by an unknown river at the south end, or else by an outlet to the north, which was not the Nile, as generally assumed, but a river which flowed westward to the unknown. The discovery about this time of Lake Kioga further confused notions about the Nile system, and it was thought that the Victoria Nile discovered by Speke did not enter Lake Albert, but in some tortuous way joined the Asua, and so flowed on past Gondokoro, leaving Lake Albert altogether out of its system.

To settle these doubts, Gordon resolved to despatch Romolo Gessi,[1] who was then little more than a steamer engineer, though, having been the mate of a

[1] Romolo Gessi was a Levantine Italian, born at Constantinople in 1831, who had gradually drifted into the employment of the Egyptian government. He became a Pasha after Gordon's departure from the Sudan in 1880.



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THE VICTORIA NILE FLOWING TOWARDS LAKE KIOGA.

Mediterranean steamer, he was able to take astronomical observations. Gessi was therefore instructed to circumnavigate Lake Albert. This task he carried out in 1876. He ascertained positively that the Victoria Nile entered Lake Albert and left it again, and he connected his rough survey of the Albertine Nile with the work which was being carried on up stream from Gondokoro by two English engineer officers in Gordon's employ, Lieutenants Watson[1] and Chippendall. In 1877 Colonel Mason (an American) took advantage of the first steamer being placed on Lake Albert to make a survey rather more careful than that of Gessi, but neither of these explorers ascertained the existence of the Semliki River or of the snow-range of Ruwenzori, though it is said that in some of Gessi's private letters mention was made of a strange apparition "like snow-mountains" in the sky, which had appeared to some of his men at the south end of Lake Albert, — a remark that attracted no attention at the time. Gessi also records having seen the mouth of a large river at the south end of Lake Albert, but it never seems to have occurred to him that this river was probably of the greatest geographical interest.

Nevertheless, when Gessi returned to Khartum to report the result of his Albert Nyanza explorations to Gordon, the latter exclaimed, "What a pity you are not an Englishman!" This remark is supposed to have

[1] Now Colonel Watson, R.E. In 1874–1875 Lieutenant C. M. Watson, accompanied by Lieutenant Chippendall, made an admirable survey of the main Nile from Khartum to Gondokoro, and later assisted Gordon in completing this survey up to Lake Albert.

been made from pique that the two English officers despatched by Gordon (Watson and Chippendall) had not arrived in time to accomplish what a Levantine Italian had successfully performed. Gessi was already somewhat offended, because he considered that he had done an excellent piece of work, and he had only received as a reward a present of a few hundred francs and the decoration of the Mejidieh, third class. He therefore flung his fez at Gordon's feet and tendered his resignation. He journeyed to Italy, and was received with great distinction by the Italian Geographical Society at Rome, who presented him with their Gold Medal. He resolved, however, to return to work as an explorer, giving particular attention to anthropological and zoölogical researches. He engaged two Austrian-Italians — Giacomo Morch and Riccardo Buchta — to accompany him. Buchta deserves special notice, as he was the first careful photographer to visit the regions of the Upper Nile. His photographs of the native types and scenery of these countries taken between 1878 and 1882 are remarkably interesting.

Soon after Gessi's arrival in Egypt with all his stores, he was informed that a fire had broken out at Suez railway station, resulting in the complete destruction of all his goods, involving a monetary loss of something like twelve hundred pounds. He therefore returned to Italy, gave up the idea of exploring the Bahr-al-Ghazal, and instead resolved to start for the river Sobat, and work his way from the upper waters of that stream to the southern

regions of Abyssinia, where two Italians — Cecchi and Chiarini — were supposed to be wandering. His second expedition was financed by generous Italians and by the late King of Italy. He was accompanied by Dr. Pellegrino Matteucci, who was subsequently to cross Africa from east to west and die at the end of his journey.

Ernst Marno, a Viennese, had attempted, in 1870, to ascend the Blue Nile and then enter the country of the Galas to the south of it. After penetrating, however, as far as Fadasi, he was obliged to turn back, owing to the hostility of the people. The same obstacles turned back Gessi and his companions, and the expedition to Kaffa was given up. Returning to Khartum, Gessi was preparing to attempt the ascent of the Sobat when Gordon returned to his post, from which he had been absent, and invited Gessi to reenter the service of the Egyptian government. A serious revolt had occurred in the western part of the Egyptian Sudan. The great slave-trader, Zubeir, who had conquered Darfur, had become a danger to the Egyptian power. By dint of a wily invitation he was lured to Cairo, and once in Egypt, was prevented by the Khedive from returning to the Sudan. His son Suleiman, however, remained in Darfur, and attempted to rise against the Egyptian government. His attempt was frustrated by Gordon, who, however, pardoned him, and appointed him sub-governor of his country with a handsome salary. But in 1878 Suleiman openly espoused the cause of the Nubian

and Arab slave-traders whose devastations of the Bahr-al-Ghazal and the White Nile regions had been sternly suppressed by Baker and Gordon. Putting himself at the head of these disaffected people, Suleiman practically subjugated all the vast territory of the Bahr-al-Ghazal, and proclaimed his independence. Gessi proceeded with a small force on steamers to Lado, on the White Nile, where he met Emin Pasha. From this point he started for the Nyam-nyam country,[1] picking up on the way all the soldiers he could obtain from the various stations of the Sudan government. He found that Suleiman had proclaimed himself "Lord of Bahr-al-Ghazal, Rōl, and Makarka." At Dem Idris, in the most western part of the Bahr-al-Ghazal province, the great battle took place.[2] The people of the country were on the side of Gessi and the Egyptian forces, because of the incessant slave-raiding of Suleiman and his men. Gessi had entrenched himself and his small force, which at the outside amounted to seven thousand men, regulars and irregulars. He had several pieces of artillery that fired grape-shot. His entrenchments were assaulted by Suleiman's forces, and as the result of this attack Suleiman lost his flags, much of his ammunition, and most of his guns, together with several thousand of his men. Nevertheless, in spite of the

[1] A portion of this is often called Makarka.

[2] During this struggle Gessi was hard put to it for food, but he quaintly notes that "Of all our troops only the Makarka and Nyam-nyam remained healthy, owing to their feeding on human flesh. Directly after a battle they cut off the feet of the dead, and consumed these, together with their brains."

recovery of Egyptian prestige throughout the Sudan, Suleiman's power was not yet at an end. He gathered up more forces, and continued to attack Gessi. At last reinforcements arrived from the north which enabled Gessi to take the offensive. He captured stronghold after stronghold. In the spring of 1879 Suleiman was flying for his life with only a thousand men. Gessi destroyed almost all the strongholds of the slavers (some of which had existed for twenty-five years, and had devastated all the country around) in the province of Bahr-al-Ghazal.

Gordon Pasha had now come to Gessi's assistance, and established himself at Shakka on the Nile. He also invaded Darfur, reconquered that country, and prevented reinforcements reaching Suleiman from that direction. Eventually, after a hundred fights, Gessi succeeded in tracking Suleiman to his last refuge. At the time he had no more than two hundred men with him, whilst Suleiman had eight hundred. Taking the camp entirely by surprise, he tried a game of bluff, and sent a messenger to tell Suleiman that he had surrounded his place with a large force, and that resistance was hopeless. Suleiman therefore surrendered. Gessi tried him by court-martial, and had him shot in November, 1879. This ended the first of the great rebellions which menaced Anglo-Egyptian authority in the Sudan. Gessi was made a Pasha for his services, and Governor of the Bahr-al-Ghazal province. He slowly brought about peace among the distracted Negro tribes.

During all the operations undertaken by Gordon and Gessi a good many additions were made to the geography of the Bahr-al-Ghazal, the Bahr-al-Arab, and Darfur. After Gordon's departure from the Sudan Gessi found it impossible to work with the Egyptian Governor-General, Raiūf Pasha. He was also extremely ill. He therefore decided to return to Europe, but got no farther than Suez, where he died in 1881, having uttered several premonitions as to the possibility of another revolt. As a matter of fact, the Mahdi, who had just begun to make himself known as a rebel, did little more than carry on the reaction against the anti-slave-trading policy of the Anglo-Egyptian control. All the elements of Suleiman's revolt which had been destroyed by the splendid valour of Gessi and Gordon gathered round the new leader, and brought about that cataclysm which closed the area of Nile exploration for fourteen years.

Édouard Linant de Bellefonds, the Belgian official in Gordon's employment of whom mention was made in the previous chapter, and who had met his death at the hands of the Bari, was avenged by the American C. Chaillé-Long, who inflicted severe chastisement on the Bari and allied tribes at and around Gondokoro. Chaillé-Long was made a colonel by the Egyptian government. He was despatched by Gordon on a mission to Uganda to spy out the land; but owing to the intervention of Sir John Kirk from Zanzibar, the British government stayed the ambitious Khedive from attempting to include Uganda in the Egyptian Sudan.

Chaillé-Long added a little to our knowledge of the Victoria Nile, and gave a more detailed report of Lake Kioga than had been previously gleaned from the unscientific journey of Piaggia. He named this lake "Ibrahim." Chaillé-Long also travelled to the west of the Mountain Nile in the Nyam-nyam countries. His book ("Central Africa: Naked Truths of Naked People") is unfortunately marred by much incorrect information, and by the erroneous spelling of native names. Mutesa, the ruler of Uganda, is disguised as "M'tse;" Uganda becomes Ugunda, while preposterous plurals are invented for the people of Uganda and Unyoro, who are called the Ugundi, Unyori, etc. Chaillé-Long's one practical contribution to Nile exploration was the definite discovery of Lake Kioga, which had only been hesitatingly reported by the unlearned Piaggia.

Ernst Marno, the Viennese, surveyed a good deal of country west of Lado and the Mountain Nile, — the valley of the Yei among other rivers. Casati, an Italian officer, journeyed all over the lands of the Egyptian Sudan; but as he was an unscientific observer and lost all his journals in the troubles that followed on the Mahdi's revolt, his contributions to our knowledge of the Nile regions are practically worthless.

Dr. Gustav Nachtigal, one of the great African explorers, was born at Eichstadt, near Magdeburg, in Germany. He was despatched on a mission to Bornu by the King of Prussia. After years spent

with great advantage to science in the Sahara, round Lake Chad, and on the Shari River, he passed from Wadai into the Nile basin in the country of Darfur, and added somewhat to our geographical knowledge of this little known part of the Nile basin. Nachtigal reached Khartum at the end of 1874. Another German was to contribute his share to the opening up of the Nile basin. Dr. Wilhelm Junker was born at Moscow in 1840 of German parents, and was educated in Germany. He started for Egypt in 1875 with the intention of going to Darfur, but he spent some time examining the Libyan Desert and the curious blocked outlet of the Nile in the Fayum. After exploring the Atbara as far as Kasala and journeying thence across country to the Blue Nile, he travelled up the Sobat River to Nasr (a point at which all exploration of the Sobat stopped for many years), and then made his way to the White Nile and the Makarka (Nyam-nyam) country. His journeys through the Bahr-al-Ghazal province took him as far south as the Kibali or Welle River. After a visit to Europe with his collections and notes, he returned to the Welle and the Mangbettu country. He explored the Welle and its tributaries for some distance eastward and westward. Munza, the celebrated king of the Mangbettu, about whom Schweinfurth wrote so much, had been murdered by the Nubian slave-traders, and the country about the Upper Welle was much disordered. Junker reached the Nepoko River, which is an affluent of the Aruwimi. His journeys westward to the

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NUÊR VILLAGE, SOBAT RIVER.

Welle River near its confluence with the Mbomu convinced him that this mysterious stream, the existence of which had first been reported by Miani and Potagos (a Greek trader), was after all the most northern affluent of the Congo, and not the Upper Shari. Junker's journeys were now interrupted by the news of the Mahdi's revolt.

Frank Lupton (Bey), a native of Essex, and once a mate on a small steamer plying between the Red Sea ports, had entered Gordon's service, and had become in time Governor of the Bahr-al-Ghazal province. Lupton added a good deal to our knowledge regarding the many affluents of the Bahr-al-Ghazal. He unhappily fell into the hands of the Dervishes, and eventually lost his life. Lupton managed to warn Junker of the outbreak, and the Russo-German traveller then made his way across country to Lado. There he stayed until the news arrived of the fall of Khartum. He then started for Uganda, crossed the Victoria Nyanza by the help of the English missionaries, and travelled to Zanzibar by way of Unyamwezi. Junker brought home with him the invaluable journals of Emin Pasha. His own two great works on the Nile basin are full of interesting information concerning the natives. He added much to our knowledge of the southern tributaries of the Bahr-al-Ghazal, but the chief value and glory of his work lay in the Congo basin and was concerned with the identification of the Welle-Kibali with the Ubangi. He also discovered the important northern tributary of the Welle, the Mbomu.

Junker's observations regarding natural history are not altogether trustworthy or accurate. His work in this respect is not to be compared with that of Schweinfurth or Emin. His books are badly illustrated, the drawings of beasts and birds being seldom recognisable, and the pictures of the people quite without any scientific value.

Two Italian officers, Massari and Matteucci, crossed the Nile basin just before the uprising of the Dervishes closed the Sudan to exploration for sixteen years. They passed through the northern frontier lands of Abyssinia, descended the White Nile, and ascended the Bahr-al-Ghazal, entered Darfur and quitted the Nile basin on the borders of Wadai, which excessively hostile Muhammadan state they actually traversed unharmed. From Wadai they reached the West Coast via Bornu and the Niger, but only to die respectively in England and Italy soon afterwards. For daring and courage the journey was a marvel; for geography it was a nullity.

When the intensity of the Dervish rule was slackening, in the early nineties of the last century various Belgian officers, such as Lieutenant Van Kerckhoven, passed the Congo basin to the Bahr-al-Arab and the westernmost tributaries of the Bahr-al-Ghazal, and threw a little fresh light on the still mysterious hydrography of the Nile-Shari water-parting. They pointed the way, however, to Joseph Marchand and his associates. This gallant band of Frenchmen, in 1897, made their way from the Mbomu River (Congo

*Photo by Maull & Fox.*] [*Face page 242.*

JOSEPH THOMSON AND WILHELM JUNKER.

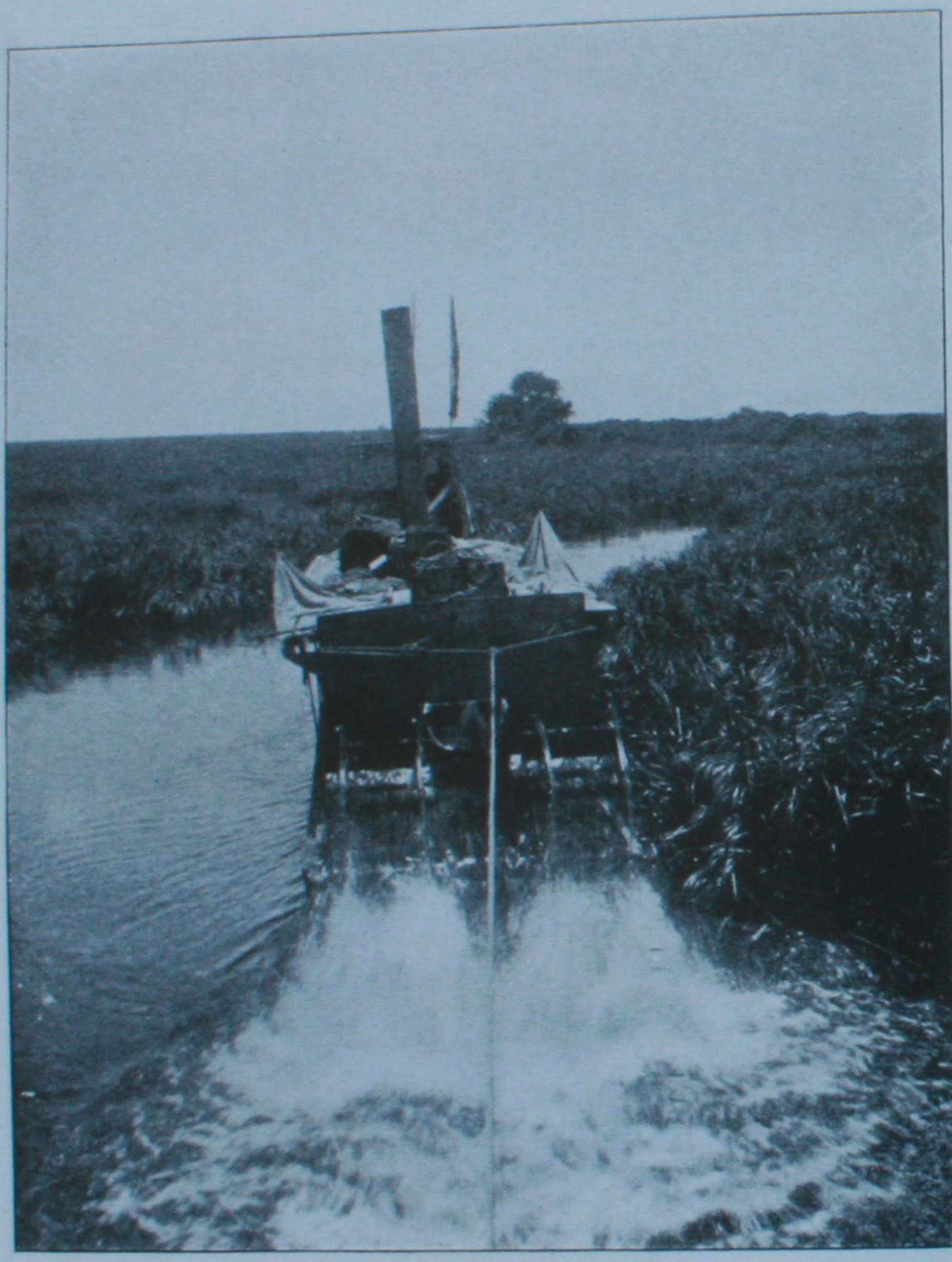
basin) down the Jur (Sue) to the Bahr-al-Ghazal and the White Nile, to face England at Fashoda. Marchand was accompanied, amongst other European officers and non-commissioned officers, by Lieutenants A. H. Dyé and Tanguedec. Tanguedec remained till 1900 on the Mountain Nile near the Bahr-az-Ziraf. Dyé gave, in 1902, some account of the explorations of the Bahr-al-Ghazal region undertaken by the Marchand expedition. The swamps which characterise the north-eastern part of the Bahr-al-Ghazal province render the definite mapping of the lower courses of its great rivers extremely difficult. Nevertheless, in the most systematic way, Marchand and his companions, in their little steam launch *Faidherbe,* surveyed the Sue or Jur (the longest stream flowing into the Bahr-al-Ghazal estuary), the Bahr-al-Arab, Bahr-al-Hamr, the Tonj, and Rōl.

The Bahr-al-Ghazal itself, from Mashra-ar-Rak downwards, was carefully surveyed, and many indications were found of the changes which have taken place since the days of its early explorers, though M. Dyé considers the sketch given by Lejean in 1862 as wonderfully correct in its general outlines.

After describing the ferruginous laterite plateau, which occupies the whole southern part of the Bahr-al-Ghazal province, as well as adjoining parts on the Congo basin, Lieutenant Dyé sketches the transition from this region, in which the streams flow in steep-sided valleys to the sea of swamps which lies along the ninth parallel. It is in about 7° 20′ north that

the first change occurs, the river-banks opening out and leaving between them an alluvial-flood plain, grassy and intersected by swamps, through which the river winds in a tortuous course, much choked by sand-banks. At the height of the rains this is entirely flooded. Still lower, the rocky valley sides entirely disappear, and the clayey banks sink below the mean water-level, the rivers becoming more and more narrow, and diminishing in depth until they are finally lost, each in its own belt of swamp, which forms a sea of grass, "Um Suf" [fleecy reeds], and papyrus.

Lieutenant Dyé, in his description, divides the estuary or drainage channel of the Bahr-al-Ghazal below Mashra-ar-Rak into three sections, each with its particular characteristics, the general trend of the estuary, however, below Mashra-ar-Rak being north, then northeast, and lastly east. The first section near Mashra-ar-Rak is at times of great width, as at the expansion known as Lake Ambady' or Ambach. There is much floating vegetation, and the channels frequently change with the winds. The depth is nowhere greater than thirteen feet in this section, which is distinguished as the region of lakes, lagoons, and reed-beds. In the second section, characterised by the growth of papyrus, the channel becomes much narrower, and reaches depths of twenty feet and more, though the figures given by former travellers seem somewhat exaggerated. The width becomes greater again in the last section, the banks of which are, as a rule, marked by ant-hills covered with brushwood.



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A STERNWHEEL STEAMBOAT.

Forcing its way up the Jur (Sue) or main affluent of the Bahr-al-Ghazal.

Schweinfurth was mistaken in saying that the current of the Bahr-al-Ghazal is imperceptible, for, except in expansions and side branches, some movement can always be traced, and in the narrowest section it reaches a speed of one mile and a quarter an hour. A remarkable characteristic of the region is the small variation of water-level between the seasons, owing to the impounding of the water in the marshes. The maximum flood-level occurs on the Bahr-al-Ghazal in November and December, or two months later than that on the Sue, and various facts are quoted showing the slight effect which a rise in the upper courses of the streams has on the water-level of the swamp region.

Given their resources and the distance they had to traverse (from Loango on the West Coast to Fashoda on the Nile, and afterwards to Abyssinia and Somaliland via the Congo, Ubangi, Mbomu, Sue, and Bahr-al-Ghazal), the enemies they had to encounter, the allies they had to win, the privations they had to endure: the journey of Marchand and his companions is one of the most splendid feats in African exploration, and well deserves the admiration accorded to it in France and England.

# CHAPTER XXI

## JOSEPH THOMSON, MT. ELGON, AND KAVIRONDO BAY

IT will be remembered that a remarkable turn was given to Nile exploration when between 1849 and 1855 the German missionaries in the employ of the Church Missionary Society at Mombasa reported their explorations of inner East Africa,—explorations which revealed the existence of snow-mountains, and which gathered reports of great lakes in the interior. The outcome of these researches on the part of Krapf and Rebman was the despatch of Speke and Burton in search of the Nile lakes. We read that only Burton's excessive prudence prevented this first expedition to the lakes from starting inland from Mombasa and following the trading route right through the Masai country to the Victoria Nyanza. This was the route followed by Arab traders as far back as 1850. The terror caused by the Masai led to great exaggerations of the dangers of this direct journey. Its chief difficulty lay in the fact that owing to the ravages of the Masai and the somewhat waterless character of the intervening country, there were no inhabitants for a distance of some two hundred miles between the coast regions on the east and the fertile lands bordering the Victoria Nyanza on the west. The missionaries, German and

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N.E. Corner of Victoria Nyanza (with Samia Hills in distance).

Near where Joseph Thomson struck the lake shore at the end of his long march, December, 1883.

English, who were settled at or near Mombasa, continued to collect information from Arab caravans. In this way news arrived of the existence of the Rift valley, with its chain of lakes, salt and fresh, and of some greater lake beyond called "Samburu," afterwards known as Lake Rudolf; also of the Nilotic Negroes in the country of Kavirondo, on the north-east coast of the Victoria Nyanza. Much of this information was industriously gathered up by a most excellent missionary, the late Mr. Wakefield,[1] who sent his notes and theories to an eminent geographer, E. G. Ravenstein. Mr. Ravenstein prepared this information for the use of the Royal Geographical Society, and in about 1880 had gathered together all that was known from surveys and reports into maps illustrating Eastern Equatorial Africa.

As the result of the interest these maps inspired, the Royal Geographical Society resolved, in 1882, to despatch on this search for a direct route to the Victoria Nyanza, Joseph Thomson, a very young and very brilliant African explorer, who had already performed a remarkable journey to lakes Nyasa and Tanganyika. Joseph Thomson left Mombasa in the spring of 1883, and after several checks and disappointments, finally crossed Masailand (Dr. Fischer, a German, had discovered the Rift valley and Lake Naivasha a year previously), settled at last the existence of the much exaggerated Lake Baringo, and

[1] Whose encyclopædic work on the Galas will soon be published. Mr. Wakefield died in 1902.

finally reached the northeast coast of the Victoria Nyanza, in Kavirondo Bay, on the borders of Busoga. So far as Nile exploration was concerned, the chief immediate result of Joseph Thomson's remarkable journey was to draw attention to Stanley's blunder about Ugowe Bay. But Thomson himself only made a step towards the delineation of this gulf; his work had subsequently to be finished by Mr. C. W. Hobley and Commander Whitehouse. He discovered Mount Elgon, however (previously alluded to by Stanley as Mount Masawa), and was, politically, the forefather of the Uganda Railway.

The present writer supplemented Thomson's work in the neighbourhood of the snow-mountain Kilimanjaro, and laid the foundations there of the British Protectorate of East Africa. Bishop Hannington followed in an attempt to repeat Thomson's journey to the Victoria Nyanza, and thus enter Uganda. The missionary bishop was murdered on the confines of Uganda, and his plucky enterprise added nothing to our geographical knowledge. Then came Count Samuel Teleki von Szek (a Hungarian) and Lieutenant von Höhnel (an Austrian naval officer) in 1887. Although the expedition led by these gentlemen never actually entered the Nile basin, it achieved the most important results of discovering lakes Rudolf and Stephanie, and thereby limiting the Nile basin on the southeast. Ernest Gedge and F. J. Jackson crossed what is now British East Africa in 1889–1890, and reached Elgon, the Victoria Ny-


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*Photo by Jamieson & Co.*] JOSEPH THOMSON.

anza, and Uganda. Dr. Carl Peters made the same journey in 1890, but did not add to our geographical knowledge in the basin of the Nile. All these expeditions were the direct result of Joseph Thomson's work.

# CHAPTER XXII

## EMIN PASHA

THE remarkable man whose name is given to this chapter was a German Jew, — Eduard Schnitzer, — born in Silesia about 1830. Becoming a doctor of medicine, he gradually drifted to Austria and thence to Turkey, where he engaged in much medical service in the suite of high officials. To some extent he adopted the religion of Islam, and changed his name to Dr. Emin. Attracted by the mystery of Central Africa, he found his way to Khartum, and from being a mere medical practitioner, became a Bey in the service of the Egyptian government under General Gordon. He did a great deal to add to our knowledge of the eastern tributaries of the Bahr-al-Ghazal and the western tributaries of the Mountain Nile. He explored the Nile-Congo water-parting, and made very interesting notes on Unyoro, Uganda, and the Albert Nyanza. He also added considerably to our knowledge of the Latuka, Bari, and Acholi countries. Strange to relate, though he lived so much between 1877 and 1888 on the Albert Nyanza, he never once sighted the remarkable snow-range of Ruwenzori. This extraordinary omission may have been due to the fact that he was very short-sighted. He would,

therefore, not himself have noticed any remarkable appearance in the sky, and probably the Negroes and Turks around him were too dull-witted to draw his attention to the snow-peaks on the rare occasions on which they were visible. In travelling along the west coast of Lake Albert Nyanza, however, he discovered the Semliki River flowing into that lake, and called it the river Dweru.[1] Emin Pasha's journals and letters, which were brought to England by Dr. Junker, were issued as a book in 1888. Regarding this compilation, it may be classed as one of the few great books that have ever been written about tropical Africa. It is full of concise and valuable information on natural history, anthropology, languages, and geography.[2] He gives a very interesting description of the mountainous country of Lotuka (Latuka), and of the regions further east.

He had been received by Latome, "an elderly gentleman of medium height and rather pleasing features," who was the ruler of the nude and handsome Lotuka Negroids: —

"Meantime a motley crowd assembled in the yard, — women and girls, the former with leather aprons, the latter entirely nude; men of different districts, all armed with shields and spears, — the genuine Lotuka people,

[1] Dweru, like Nyanza, is a very common Bantu word which is applied equally to lake and river. It simply means "whiteness." With different prefixes it becomes Mweru, Jeru, and so forth.

[2] In giving extracts from this as from other works of Nile explorers the present writer often summarises. He also employs sometimes more modern spelling in scientific nomenclature to avoid puzzling the reader habituated to the most recent descriptions.

recognisable by their slight figures and long faces, — all nude, and adorned with iron ornaments, ivory rings on the upper arm, broad copper rings as necklaces, and helmets of shining brass or copper plates, surmounted by waving ostrich plumes. Some of them wore caps made of basket work. After our reception was over, we visited the summit of the hill, whence a splendid view is obtained, extending from Mount Loligono in the Bēr country, northwards over the whole Lokoya range, to the west, and to the high peaks of the Obbo Mountains, in the south and southwest, where the horns of Jebel Asal tower up, — so named on Baker's map, but called by the Bari "Ekara," and by the Lotuka "Chufal," — then away to the long lofty ranges of Molong and Killio, the defile leading to Tarangole, with its hills rising up like sentinels, and finally the long range of Lafit, which closes the scene on the northeast, — a typical Alpine landscape."

The Lotuka people, it might be mentioned, are very similar in appearance and language to the Elgumi tribe, which is much farther south, in the vicinity of Mount Elgon. Both these peoples are nearly related in origin to the Masai. They should properly be styled Lotuka.[1]

Of the Lotuka country Dr. Emin writes: —

"The sky was overclouded when we left Tarangole. Taking a southeasterly course along Khor Kos,[2] through beautiful park land, we reached the ford in about half an hour. The *khor* was here about twenty-two yards broad, and full of yellowish water, which reached up to our

[1] Vide chap. ix. p. 107.

[2] This stream, joining others from farther east, enters the Mountain Nile near the bifurcation of the Giraffe River. — H. H. J.

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Dr Emin Bey

EMIN PASHA.

thighs, and flowed over a sandy, rocky bottom. We had a pleasant march over a good firm road, across sandy country covered with open wood, the ground being rather wet in some places; the predominance of acacias (*Acacia albida, A. mellifera,* and *A. campylacantha*) and *Balanites* gave a gray tone to the scenery. Khor Oteng, now very insignificant, is said to pour such large volumes of water into Khor Kos [1] in the rainy season that the passage is often rendered impossible for hours. The ford of Khor Kos is called Chuchur; a splendid forest of doleb palms (*Borassus*) yielding an abundance of odorous fruits, skirts the khor, copses of various other trees intervening. Large flat blocks of friable granite, with white streaks, lie across the road that leads direct to the foot of the hill of Loguren, which is about four hundred feet high. Its summit is crowned with the dome-shaped huts of the village bearing the same name.

"Dum Palms (*Hyphæne thebaica*) grow here, as they do at the ford of Khor Kos. It appears, therefore, that the southern limit of this tree runs along the Bahr-al-Jabl between Bor and Lado, and then advances farther to the south, no doubt owing to the sandy soil which connects the Lotuka and Somal districts.[2] Picturesque groups of rocks, inhabited by the restless Hyrax, well-tilled fields, and here and there small clumps of doleb palms are seen along the road to Elianga, where, on the edges of the rocks, numerous clay vessels containing human bones seem to say 'Memento mori,' a rather unnecessary warning in Central Africa."

[1] Khor Kos flows into the Oguelokur, and thus into the Bahr-az-Ziraf. See chap. xxvi.

[2] The distribution of the branching Hyphæne Fan palm is very peculiar. It is found right across the Sahara, south of latitude 25°, to the vicinity of the Atlantic. It avoids the better watered regions of Nigeria and the Bahr-al-Ghazal, but on the east extends across Somaliland and down the coast to Mombasa. — H. H. J.

Emin describes the Lotuka villages as being dreadfully dirty, in contrast to the Bari settlements, which are always kept scrupulously clean within, though their environments are filthy. Hundreds of rats and mice infest the Lotuka huts. These latter are built upon round substructures about four and one-half feet high, usually caulked and overlaid with mud. The huts are surmounted by bell-shaped roofs (sometimes peaked), which project considerably over the substructures. A small doorway is left open, about two and a half feet high, which must, of course, be entered on all fours. The interior is kept fairly clean, but is quite dark. The thatch is generally made of grass; many huts are covered with split leaves of the *Borassus* palm, which are more durable and compact, —a very desirable quality for withstanding tropical rain. Sheep and goats are the only domestic animals kept here; the former are long legged and of a superior breed. The Lotuka do not seem to keep dogs. Agriculture, as is usual among hunting tribes, is rather neglected, although the soil is excellent, and the Sudanese soldiers stationed in Lotuka grew without difficulty durrah, maize, ground-nuts, and splendid watermelons.

Ostriches are caught when young, and are tamed in the Lotuka settlements. Sometimes they are hatched from eggs buried in the sand. Snakes of many kinds, especially viperine, frequent the Lotuka villages unmolested by the people, and often making their way into the huts after the rats. A poisonous species of *Echis* is, however, much dreaded.

Okkela in the Lotuka country was a paradise for a natural history collector like Emin. The belt of wood round this settlement was full of treasures. There were many Colobus monkeys, whose white dorsal mane and tail-tuft gleamed through the dark foliage, small families of them being led by white-bearded old males which gazed fearlessly at the stranger. Close by a brown baboon mother might be giving her offspring rough lectures on good manners, which, to judge from the howling, were not much appreciated; "tall, fox-coloured baboons, white on the under side,[1] were chasing one another along the tree-tops, and barking and yelping like hoarse dogs. A small mouse-coloured monkey with a black face, and quite unknown to me, skulked away through the thick bush; two varieties of *Funambulus* squirrels ran up and down the long tendrils of the creeping plants, and the graceful *Xerus leucumbrinus* squirrel roved about upon the ground. Small cats, ichneumons, rats, and mice had also found a comfortable shelter in the woods, and other creatures, quite unknown, to judge from the description, are said to haunt it, especially at night."

Birds were even more numerous and striking. "Gorgeous blue kingfishers (*Halcyon senegalensis* and *H. semicærulea*) and beautiful bee-eaters (*Merops bullockii* and *M. albicollis*) were perched on the dry boughs waiting for insects; a large gray cuckoo, probably a new variety,[2] could be heard in the tree-

[1] Probably Emin refers to the lanky *Cercopithecus patas*.
[2] Really a plantain-eater — *Schizorhis* or *Gymnoschizorhis*. — H. H. J.

tops, as also the handsome *Cuculus capensis*, whose loud cry the Nile Negroes interpret by the word *lashakong* (my gourd), and a charming little falcon (*Nisus* sp.) joined them with a sharp chirp, which the natives call *lefit*, a happy imitation of its cry. Snow-white *Terpsiphone* and brilliant golden cuckoos (*Chalcites cupreus* and *C. clasii*) were swinging in the green leafy bowers, and cunning barbets (*Pogonorhynchus rolleti, P. diadematus,* and *P. abyssinicus*) came into sight for a moment, to disappear again directly like woodpeckers. In the thick copsewood *Bessornis heuglinii* flew off at my approach with a sudden cry of fear, and *Cichladusa guttata* sang as loudly, but was not quite so shy. An *Aedon* warbled its beautiful song among the thickest briars, and was accompanied by the tapping of numerous woodpeckers. I caught *Picus nubicus,* the rarer *P. minutus,* and another kind which I think is new; it closely resembles *P. schoensis,* and it is equally handsome."

Animal life abounded also in the open country of Lotuka, — a land covered with shrubs, with broad, grassy clearings and sandy flats. The ground was strewn with the shells of *Achatina zebra;* small lizards and snakes of various kinds — among them the rare *Typhlops* — glided over the sand, and larger snakes hissed frightfully and retreated. A concert of croaking frogs would arise from the reedy margins of the half-dry rivers, and on the sandy islands of the Kos enormous crocodiles were watching the children bathing close by. Herds of *Cobus leucotis* [1] grazed on the

[1] The white-eared Kob antelope. — H. H. J.

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RAPHIA PALMS BY A CENTRAL AFRICAN STREAM.

young grass; large wart hogs issued from holes in the ground. "They were," writes Emin, "no despicable antagonists, for they can make very good use of their huge tusks. Going further into the bush, I saw the elegant form of a wild cat stealing off with its tail in the air, and heard a loud growl from a leopard which disapproved of my presence. Lions were most plentiful."

A herd of zebras grazing on the fresh green grass is a pleasant picture, whether surrounded by their frolicking young or running away at a thundering gallop. One does not often meet with the scaly ant-eater, *Manis temmincki,* still less with the earth-pig (*Orycteropus æthiopicus*), but a fine example of the latter edentate having fallen into a pitfall, Emin was able to attest its presence in Nile land.

Emin's journeys in the region of the Bahr-al-Ghazal and along the water-parting between the basins of the Nile and the Congo added greatly to our knowledge of those countries. The forests in these regions he described as magnificent "gallery" woods, in which all the marvels of vegetation unfolded themselves before the enchanted gaze of the botanist. These forests border the streams, and exist only near to running water. The region, however, of immense unbroken forests, in which one may wander for hours without seeing a sunbeam, and where one hears the rain beating upon the summits of the trees without feeling a drop, commences only a little to the west of the Nyam-nyam (Zande) country. There is no doubt that much

of the Bahr-al-Ghazal region was originally quite covered with forests, to judge from the remains of virgin woods which still exist. The gradual disappearance of the forest is to be attributed to the comparatively thick population, the constant removal of villages and fields, and to the inroads of both axe and fire. Emin saw the remains of many a gigantic and magnificent forest-tree lying rotting on the ground, having been cut down, and given to decay because it spread too much shade over the crops. After many years of wandering among these regions, he was inclined to think that in ancient times the true Central African forest region, that is, the permanence of evergreen woods containing westerly species, extended much farther to the north than it does to-day. Towards the east of the Nyam-nyam country, as far as the district of Janda, he observed such West African forms as *Artocarpus* and *Anthocleista*, but he states that the valley of the Mountain Nile throughout its whole length, as far south as Lake Albert, is characterised by steppe vegetation, as is also the entire eastern region of the Nile basin.

# CHAPTER XXIII

## STANLEY DISCOVERS THE MOUNTAINS OF THE MOON AND LAKE ALBERT EDWARD. — THE END OF EMIN

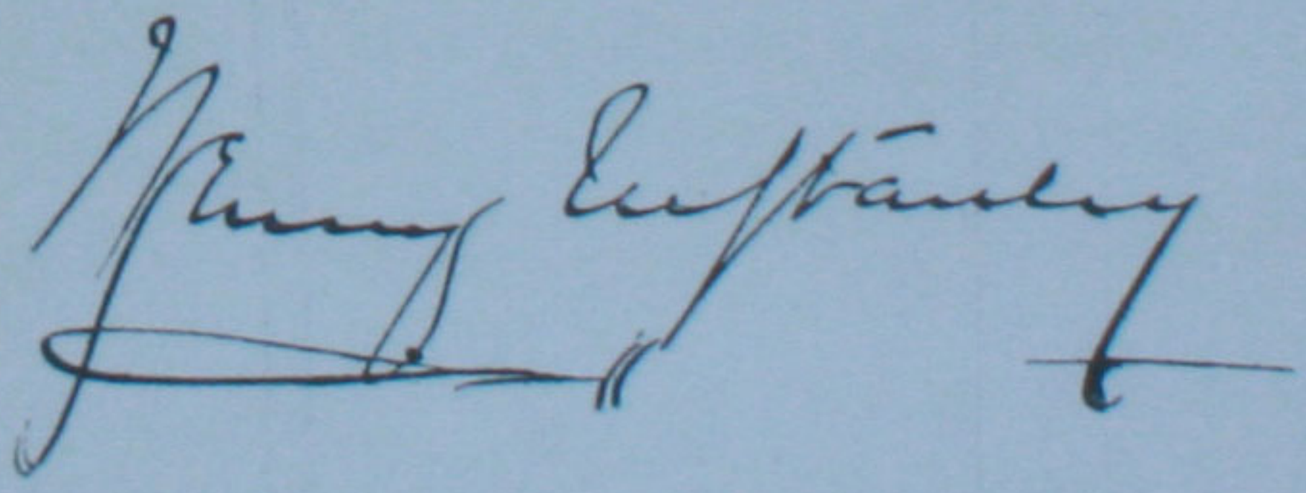
TWO sets of circumstances now hindered further exploration of the Nile basin, — the revolt of the Mahdi, with the disasters that followed at Khartum; and the persecution of the Christians followed by civil war in Uganda. Emin Pasha was left to govern Equatoria for four years, cut off from all communication with Egypt. Dr. Junker, arriving with his collections and journals in 1886, aroused a great wave of enthusiasm in England and Germany. Stanley at once offered to lead a relief expedition to the Equatorial provinces of the Nile. The great prestige of this remarkable man made it impossible for any other candidate to enter the field in England. Many, however, were in favour of entrusting the expedition to Thomson, who believed in the practicability of conducting it by a direct route from Mombasa to Mount Elgon, and so across to the Nile. Whether he would have succeeded is a moot question, owing to the fierceness of the Nile tribes between Elgon and Gondokoro, and the jealousy and suspicion of Uganda and Unyoro; for the King of Uganda, having had his fears aroused as to European aggression, had already

caused Bishop Hannington to be murdered for repeating Thomson's journey to Busoga.

Stanley was precluded from following the old Unyamwezi route, owing to German jealousy. He decided, therefore, to strike at the Upper Nile by way of the Congo, and so found himself struggling through the dense forests of the Congo basin between the navigable waters of the Aruwimi and the cliffs of Lake Albert. This wonderful journey, which he took for the relief of Emin Pasha, resulted in the discovery of the real Mountains of the Moon [Ruwenzori], the complete course of the Semliki River, Lake Albert Edward, and the southwesternmost gulf of the Victoria Nyanza. Stanley added a great deal to our knowledge of the Congo Pygmies, who in this direction stray over into the Nile watershed; but his grand discovery on this occasion was Ruwenzori. On May 24, 1888, about five miles from Nsabe, on the grassy mountains to the southwest of Lake Albert Nyanza,

> "while looking to the southeast and meditating upon the events of the last month, my eyes were directed by a boy to a mountain said to be covered with salt, and I saw a peculiar shaped cloud of a most beautiful silver colour, which assumed the proportions and appearance of a vast mountain covered with snow. Following its form downward, I became struck with the deep blue-black colour of its base, and wondered if it portended another tornado; then as the sight descended to the gap between the eastern and western plateaux I became for the first time conscious that what I gazed upon was not the image or semblance of a vast mountain, but the solid substance of a real one,

*Photo by John Fergus.*] [*Face page* 260.



SIR HENRY STANLEY, G.C.B.

with its summit covered with snow. . . . It now dawned upon me that this must be the Ruwenzori, which was said to be covered with a white metal or substance believed to be a rock, as reported by Kavali's two slaves."

This view was obtained from a distance of seventy miles, — about the distance of the chief snows of Ruwenzori from the south end of Lake Albert Nyanza. The constant haze rising from the Semliki valley no doubt keeps this mountain usually invisible from the waters of the lake. It is, therefore, not so surprising that it was not hitherto seen by the explorers of the Albert Nyanza, as it is that Stanley himself should have camped at the very base of this mountain for some days in 1875, and have been ignorant of its true character as the highest ground and the most completely snow-and-glacier-covered range in the whole of Africa. The name that he has given to it unfortunately does not completely correspond with the native pronunciation; it should be Runsororo.

The discovery of this snowy range was soon followed by the realisation of the Semliki River, another geographical name of Stanley's giving which it is most difficult to trace to any native source. (The Semliki, in fact, is never called by any native tribe "Semliki." It is known as Dweru, Nyanja, Ituri, Isango, and other Bantu terms indicating *lake* or *river*. When first discovered by Emin Pasha, a short time before Stanley's arrival, it was known as the Dweru.) This stream is really the Albertine Nile. Its existence had been surmised by Sir Samuel Baker

without much foundation (then) for his theory. Emin Pasha first noted it in 1884 as a feeder of Lake Albert. Stanley, in 1889, traced the Semliki up its course to its point of exit from Lake Albert Edward, which sheet of water he was the first European to discover. Albert Edward is connected by a narrow, winding channel [1] on the northeast with a somewhat extensive, shallow lake, usually known as "Dweru." [2]

Dweru was discovered by Stanley in 1875, and named by him Beatrice Gulf. Stanley now ascertained that the two lakes were connected. His expedition crossed the Kafuru, as the connecting stream is called, and entered the till then unvisited Hima kingdom of Ankole. Stanley's guess at the shape of the Albert Edward was incorrect, and it needed subsequent expeditions to give us a truer idea of the form and area of this sheet of water, the eastern shore of which still remains unsurveyed.

Passing through Ankole, Stanley reached the southwestern extremity of the Victoria Nyanza, which he named Emin Pasha Gulf. On his journeys of circumnavigation in 1875, he had been deceived by a chain of islands into an incorrect limitation of the area of the Victoria Nyanza in this direction. He now realised that the lake extends much further to

[1] The Kafuru. This was re-examined by the author of this book. It is a narrow winding channel passing between high banks. In spite of the author's delineation of this feature in his book, "The Uganda Protectorate," map-makers still continue to draw it as a lake-like straight arm connecting the Albert Edward with Dweru.

[2] Dweru, as already explained, merely means a white surface or sheet of water.

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SHORES OF THE VICTORIA NYANZA, NEAR EMIN PASHA GULF.

the southwest than was previously thought by Speke and himself, and is therefore not of the heart-shape assigned to it in the earliest maps; it is, in fact, much longer from north to south than it is broad from east to west.

The rest of Stanley's great journey took him out of the Nile watershed.

But the discoveries which he made in the Albertine region of the Nile basin whetted the curiosity of Emin Pasha, who longed to return to these mysterious regions.

He did so in 1890, as a German official. Accompanied by Dr. Franz Stuhlmann, a very able explorer, he directed his steps to these regions of fascinating interest, the Snow-mountains, and the Great Forest. In 1891 Dr. Stuhlmann made an ascent of the Ruwenzori range on its western aspect nearly to the snow-line. He revealed the existence of its remarkable Alpine vegetation of giant groundsels and lobelias. He also attempted to discriminate between the many different snow-peaks of this lofty range, though with only partial success, his failure in arriving at a complete result, like that of subsequent travellers, being due to the constant presence of clouds. Emin and Stuhlmann together added a good deal to our knowledge of the Semliki, and to the clearing up of geographical points connected with the line of watershed between the Nile and the Congo systems immediately west of Lake Albert. Emin Pasha resolved to return by way of the Congo, and was therefore left

to do so by Stuhlmann, who returned to his duties in German East Africa. Re-entering the great Congo forest, and following a northern affluent of the Ituri-Aruwimi, Emin was captured by one of the slave-trading, Arabised Manyema who had recently invaded this region to secure ivory and slaves. As a German official, Emin (together with other Germans) had confiscated property belonging to these Manyema, had released slaves, and had severely punished slave-raiders. From motives of revenge, therefore, he was sentenced to death by his captor, and his throat was cut in his house one day in October, 1892.

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Dr. Franz Stuhlmann.

DR. FRANZ STUHLMANN.
(Deputy Governor of German East Africa.)

# CHAPTER XXIV

## GERMAN EXPLORERS DETERMINE THE SOUTHERN LIMITS OF THE NILE BASIN

THE acquisition by Germany of those interior regions of the Zanzibar coast-line which now constitute German East Africa led to a considerable development of exploration in the southernmost regions of the Nile basin. Prior to 1890 there had been much discussion as to what was the Nile's furthest tributary, — what stream, in fact, was the ultimate source of the Nile. Stanley's journeys in search of Emin Pasha had revealed the existence of the Semliki and of Lake Albert Edward, and had thus extended considerably the length of the Albertine Nile system. Later on Count Götzen had shown by his remarkable journeys north from Tanganyika that Lake Kivu (the existence of which had been already reported by Burton, Speke, and Stanley) was connected with Tanganyika, and therefore with the Congo. This put a limit to the Nile basin in that direction, and disposed for ever of the last vestige of Livingstone's wild dream, by which the main course of the Nile would have risen far south of the equator in what we now know to be the basin of the Congo, and have flowed through Lake Albert instead of through the Victoria

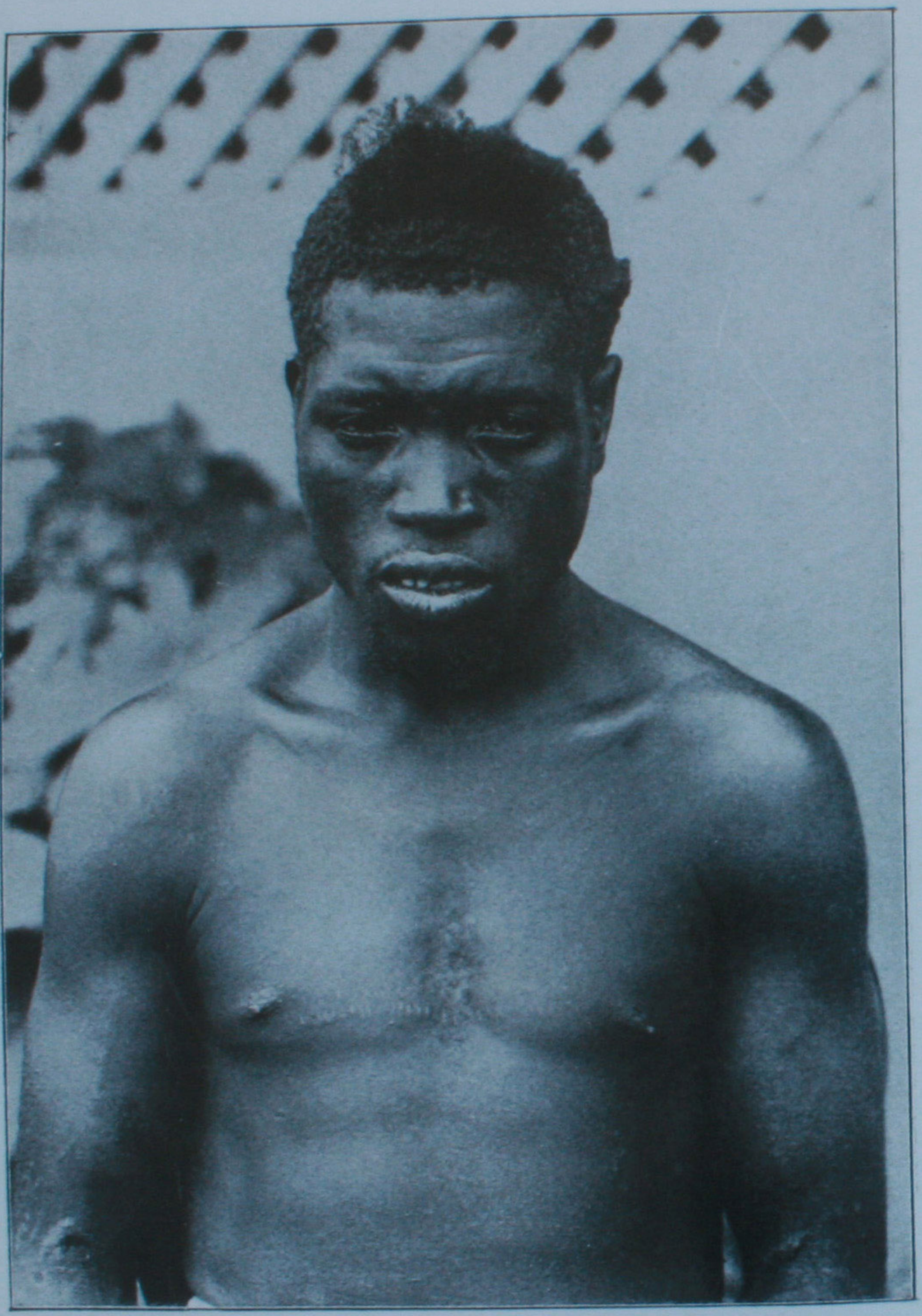
Nyanza. Speke had discovered the important Kagera River (which he called the Kitangule), and Stanley had extended our knowledge of this, the largest affluent of the Victoria Nyanza. Stanley had, in fact, in 1875 christened it the Alexandra Nile, but he was very much misled about its origin and course, and he made it issue from a hypothetical lake, Akanyaru,[1] which has no existence, but which was no doubt in part an exaggeration of swamps along the course of the Kagera, and in part a confusion with the rumoured Lake Kivu.

The Kagera is now acknowledged to be the extreme head-waters of the Nile. A distinctly observable current passes across the Victoria Nyanza from the mouth of the Kagera to the Ripon Falls. In 1891–1893 Dr. Oscar Baumann, a German official, who had previously done some good exploring work in West Africa, made extensive journeys through southern Masailand and Unyamwezi to the sources of the Kagera River. This stream (especially in its upper waters, where it is known as Ruvuvu), was further explored in 1899–1900 by M. Lionel Dècle, a French traveller, who had done a great deal to increase our knowledge of Central Africa.[2] Dr. Kandt,[3] in 1898, and other Germans, have also put on the map portions of the Kagera's course, and our knowledge of this stream has

[1] This word is the name of one of the tributaries of the Kagera.

[2] M. Dècle travelled overland from the Cape of Good Hope to the Victoria Nile in 1892–1894.

[3] Dr. Kandt (who first correctly mapped Lake Kivu) traced the course of the important Nyavarongo and Akanyaru tributaries of the Kagera. This learned explorer died in 1901.



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A Native of Unyamwezi, from near South Shores of Victoria Nyanza.

received contributions from Messrs. Racey, Mundy, and R. W. Macallister, officials of the Uganda Protectorate. The Kagera River has two principal sources, both of them almost within sight of the waters of Tanganyika. The stream which is usually taken to be the more important source rises in south latitude 3° in the country of Ruziga, about fifteen miles due north of the north end of Tanganyika, at an altitude of about 6,270 feet above sea-level. Some fifty miles south-southeast of this point, however, there is another source, which may be taken to be the southernmost extension of the Nile system. This fountain, in south latitude 3° 45′, is on the eastern slope of the Utembera or Kangozi Mountains, only ten miles east of Tanganyika. The altitude is about 6,300 feet. This would seem to be the farthest source of the Nile.

Herr Baumann made another contribution of negative value to Nile exploration. Stanley and some other travellers had believed that the southernmost source of the Nile lay in the country of Unyamwezi, in certain streams which flowed northward into the Victoria Nyanza, which they entered under the name of the river Simiyu or Shimeyu. But in these deductions they were wrong. Baumann showed that the river Simiyu was an inconsiderable stream of short course, and that the waters much further to the south which had been identified with this river really flowed northeastwards into a largish salt lake, discovered by Baumann and called Lake Eyasi. Eyasi has no outlet. It is situated in a rift valley which

joins the great Rift valley of Masailand. The journeys of Baumann and of other Germans considerably curtailed the present extent of the Nile basin in Unyamwezi. The waters of this somewhat arid tableland, which apparently is almost below the surface of the Victoria Nyanza, flow mainly to Tanganyika, to Lake Rukwa, and to Lake Eyasi and other isolated pools of the rift valleys.

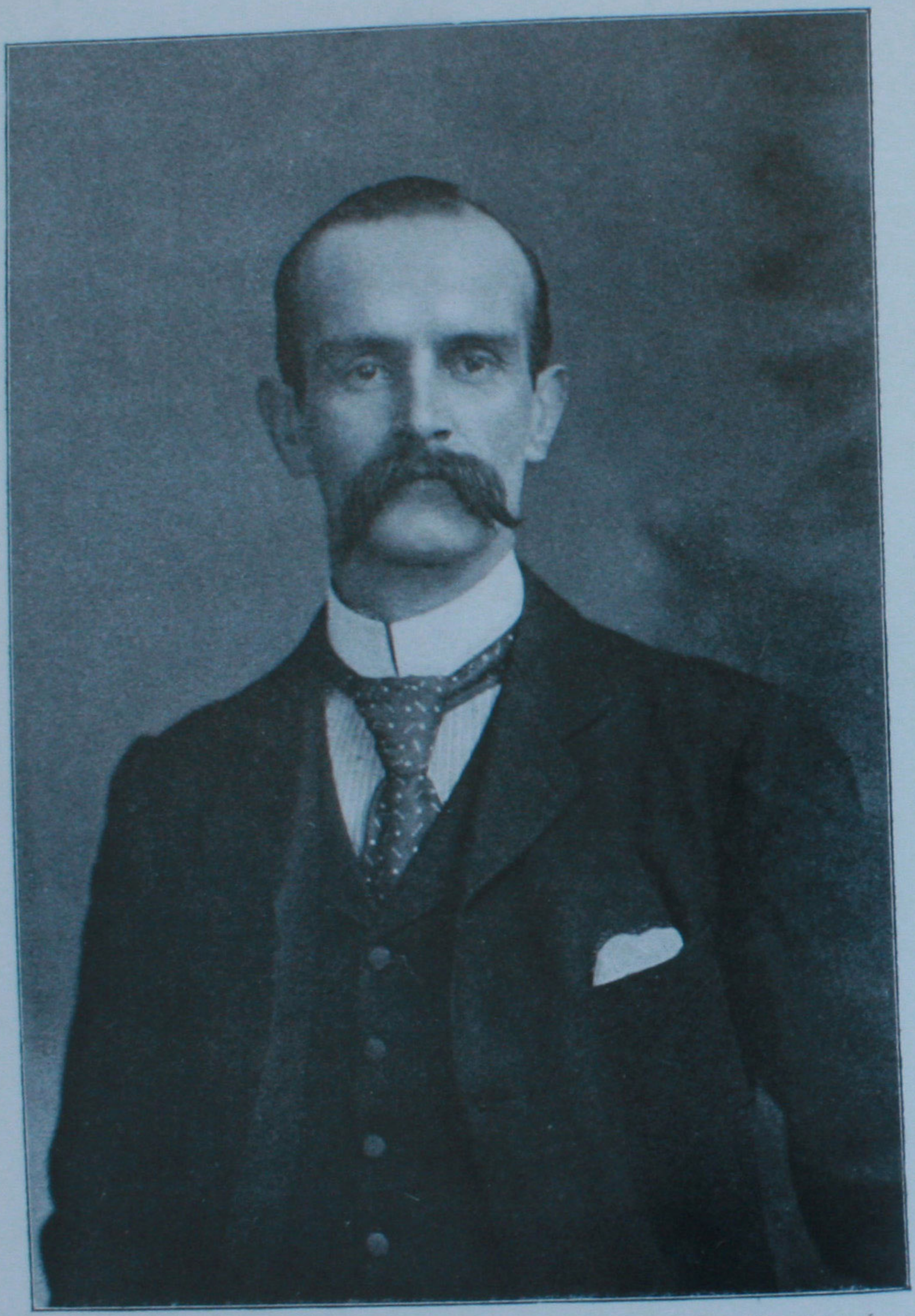

*Photo by J. Thomson.*]

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SIR FREDERIC D. LUGARD.