

ETHNOLOGICAL COLLECTIONS IN THE U. S. NATIONAL MUSEUM FROM KILIMA-NJARO, EAST AFRICA.

BY DR. W. L. ABBOTT.

A little south of the equator, and about 175 miles from the coast of East Africa, rises the splendid mountain Kilima-Njaro. It covers an area as great as the Bernese Oberland, and its cratered peak, Kibo, is over 20,000 feet in height, capped with glaciers and eternal snows.

For centuries there had been reports among the coast people of a great snow-covered mountain in the interior, but it was not until 1849, when Krapf, a missionary, first saw Kilima-Njaro, that the Suaheli statements were verified.

The nearest port on the coast is Mombasa, now the headquarters of the British East African Company. The country between is an open plain and scrub-covered desert, excepting where the Teita Hills rise, about 100 miles from the coast, to a height of 3,000 feet. In the plain, close to its southeastern corner, lies the forest arcadia of Taveta, the porters' paradise, offering a cool and shady resting-place after the scorching journey from Mombasa.

The mountain is volcanic, with two cones, Kibo and Kimawenzi. The former is the highest, 20,100 feet, and contains a huge crater 2,000 meters in diameter and 200 meters deep. A secondary cone rises from the floor of the crater, and the whole is covered with an ice-cap of glacier. Kimawenzi is a black dome of rotten lava, about 700 meters lower, and is rarely completely snow-covered. A connecting ridge about 15,000 feet in height joins the two peaks, which are situated about eight miles apart. The axis of the mountain lies east and west.

None of the early explorers gained any considerable elevation. Charles New reached nearly 14,000 feet in 1872. Joseph Thomson reached about 8,500 feet; then H. H. Johnston, in 1884, claimed to have reached about 16,000; Count Teleki, in 1887, did reach this altitude. Immediately after Dr. Hans Meyer, of Leipzig, accompanied by Baron von Eberstein, got to the foot of the glacial ice-cap, but they were unable to ascend its icy precipices. Last year Lieut. Ehlers and the writer attempted the north face of Kibo; Ehlers gained the northwest corner without seeing any crater, however, and the writer broke down at

17,000 feet. Finally, the past autumn, Dr. Meyer, accompanied by Herr Purtscheller, of Salzburg, an experienced Alpinist, succeeded in making four ascents of Kibo and two of Kimawenzi. The ascents were extremely difficult, owing to the rotten condition of the ice upon Kibo, the explorers often sinking to their armpits. Kimawenzi was still worse, with its precipices of crumbling lava, great masses being detached at a touch. The great crater in Kibo was discovered and the mountain accurately mapped.

The climate of such a mountain, of course, presents every variation. The surrounding plain has an average elevation of 2,500 feet. Ascending from its tropical temperature and vegetation, we enter the more temperate zone of Chaga, at a little over 3,000 feet. This is the inhabited region and extends to about 5,400 feet; then comes a zone of heavy forest, reaching, with some intervals of grassy downs, to about 9,000 feet. Some scattered patches of forest are found 1,500 feet higher. The region of grass and heather reaches to 14,000; above this, saxifrages, mosses, and lichens to about 15,500, when all vegetation ceases and the ground is covered with glacial débris. The line of perpetual snow is about 18,000 feet. The southern slope is well watered and the rainfall heavy, owing to the southwestern monsoons. Many rivers flow down it, cross the plain to the southward, and empty into the Ruvu. The eastern slope is also well supplied with rain. Its streams, however, do not reach the foot; but among the foothills, a short distance from the base, are a number of springs of clear, cold water. These form two rivers. One, the Useri, flowing northeast, empties into the Sabaki; the other, the Lumi, flows southward, giving life to the forest of Taveta, and, after forming a large backwater (Lake Jipe), receives other streams from the mountain and becomes the Ruvu, emptying into the sea at Pangani.

The northern and western slopes are much drier, the streams are few, and the vegetation much more scanty. Here, also, the forest zone exists, but is much narrower, and there are some small openings through it, by which the buffalo and eland and other denizens of the plain travel up to the higher regions. But, instead of the populous and well-cultivated zone of Chaga upon the other slopes, here we find only a wandering and pastoral population of Masai, comparatively few in numbers, still further diminished during the past few months by their disastrous war with the Arusha Wajun.

Upon the slopes of Kilima-Njaro, and in the plains near by, are numerous extinct cones and craters, mostly of small size. One at the southeast corner forms the crater lake of Chala, a lovely sheet of water about $1\frac{1}{2}$ miles in diameter.

The lava walls rise perpendicularly 200 feet from the water's edge. It is inhabited by numerous crocodiles and a peculiar species of fish.

The scenery of Kilima-Njaro and the neighborhood can scarcely be compared with that of any place in Europe or America, it is so entirely

different. The distances are so great that the effect of the great heights and mountain masses are to an extent lost. The neighboring mountains, although often of giant size, rise blue in the distance. Westward is the volcanic pyramid of Meru, scarcely known by name, yet not far from 18,000 feet high, containing a huge crater and secondary cone, which, as seen from a high point upon Kilima-Njaro, is always white with snow. Other neighbors are the Ugweno, Pare, Litema, Ngaserai, and the volcanic masses of the Kyulu mountains; all these higher than the Jura and some of greater extent, their very names scarcely as yet known in Europe. From here, in Moshi, Kibo, and Kimawenzi are each distant about 15 miles and of course do not look very imposing. But the scene in some of the gorges and ravines near the bases of the peaks is wild and grand to an extreme. One gorge near the base of Kinna-

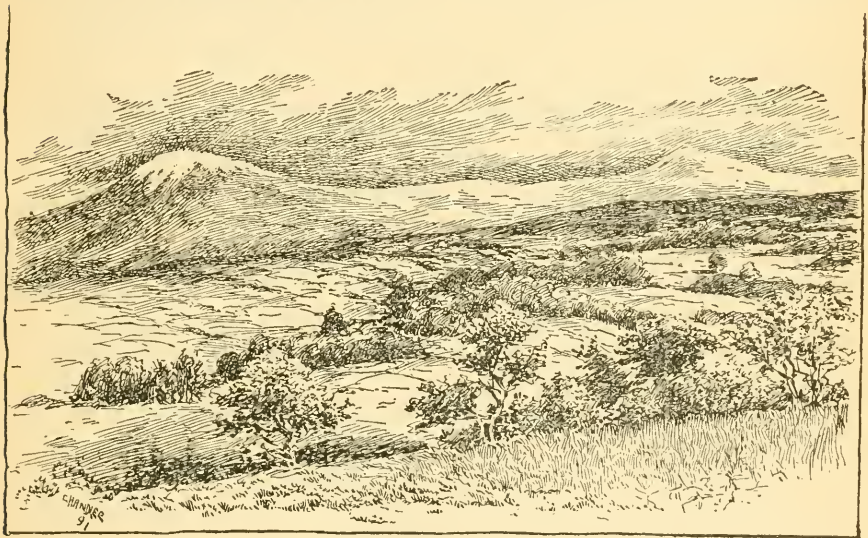


Fig. 1.

MT. KILIMA-NJARO, EAST AFRICA.

From photograph in U. S. N. M.

wenzi is very fine, rugged bare walls of lava on both sides and the great black peak standing at the upper end. At one point there are a waterfall and a Via Mala on a small scale. (Fig. 1.)

The zone from 9,000 to 10,000 feet is a particularly pretty, parklike country, with scattered groves, grassy slopes, and downs covered with bracken and heather. Occasionally places are seen which remind one of Devonshire or Hampshire, with the advantage in favor of Kilima-Njaro that one is not crowded by the other inhabitants. At this season (December) the upper groves are yellow with the bloom of the *Senecio Johnstonii*, varied with reddish fruit-bunches of a tree resembling sumac and the dark green of the giant heather. The grassy downs are sprinkled with heather, campanulas, strawflowers, gorgeous red lilies, and "red-hot pokers."

The forests have a most curious appearance. The trees, although often of very thick trunks, are not tall but somewhat stunted. The trunks and larger branches are completely covered with orchids, lichens, ferns, and moss. From every limb and twig hang long festoons of gray moss (*orchilla?*), while the ground is thickly carpeted with ferns of a species resembling "love in a tangle" (*selaginella*).

Some of the huge tree trunks are perfect botanical gardens, from the number and variety of the plants growing upon them. As to Chaga, it has but few equals on the earth in beauty of scenery. Looking from the porch of my house, the prospect lies before me of hill rising beyond hill crowned with plantations of bananas, hillsides covered with grain, and pastures dotted with flocks of sheep and goats in the little valleys. Two thousand feet below stretches the vast wilderness of plain into Masai-land, with Mount Meru in the distance; above me, over the zone of forest, rises the snow-capped dome of Kibo. Truly one's lot might be cast in worse places than in Chaga.

Chaga stretches from Useri upon the extreme northeast corner of the mountain to Kibonoto on the southwest corner, a distance of about 60 miles, and is inhabited by a population of about 60,000. At no point does the cultivation extend lower than 3,000 feet, and nowhere above 5,400. This narrow zone is from two to four or five miles wide. It is divided into no less than thirty states, each governed by a more or less independent sultan, and separated from its neighbors by a strip of wilderness or by a deep gorge, as the case may be. The largest state, Machame, contains probably 10,000 people, while some of the lesser have only a hundred or two subjects.

The state of Useri lies at the northern corner. It has a population of 5,000 to 6,000, and is governed by Malimia, an energetic sultan, who is, however, rather shy of strangers, having a fear of being bewitched. When Bishop Parker visited him a few years ago he was kept waiting two days before being accorded an audience.

Mr. Stephens and I visited him a year since, but his majesty declined an interview. West of Useri lies Kimangelia, divided among a number of small chiefs, all feudatories of Useri. South, along the whole east face of Kilima-Njaro, are the Rombo, the poorest and most primitive of the Wa Chaga. They have but little intercourse with the coast traders, and no European has yet visited their country. They are divided into at least ten chieftaincies, some of which are feudatories of Mandara; others, being independent, form convenient hunting-grounds for the slave raids of that chief and his allies.

At the southeast corner of Chaga is the little state of Mwika; next to the westward is the Msai, divided into upper and lower. Then comes Mambo. All these are small and unimportant. Next in order is Marang, whose sultan, Miliari, has 500 to 600 warriors. He is a great friend to the Europeans, and is about the best chief to have intercourse with that can be found in Africa. I have lived in his country many months, and never had the slightest trouble with him. All his Eu-

ropean visitors give him the same good character, a most unusual one among Africans. To the west of Marang is Kilemma, whose chief, Fumba, is remarkable for his begging habits, extraordinary even for a negro sultan, and which render him an extremely unpleasant host. Passing the unimportant State of Kirua we come to Moshi, whose sultan, Mandara, has made himself quite famous throughout east Africa, and has even sent ambassadors to the Emperor of Germany. He is very energetic, and is the head of the confederacy against Cena, chief of Kibosho, who is his great enemy. Mandara was given a very bad name by former travelers, and he robbed one of them (Mr. New), who came here in 1874, of everything he possessed. However, he may have changed since, as he has seen many Europeans; for although I have lived in Moshi six months, scarcely any trouble or annoyance has ever been offered to me.

Mandara has had more intercourse with strangers than any other chief, and has accumulated European curiosities of every imaginable description—toy steam-engines, clocks, guns of many patterns, stereoscopes, sewing machines, cavalry helmets, and books, uniforms, and indeed one can scarcely tell what he has not got. These valuables he keeps stored away, bringing them out occasionally for his own amusement or to exhibit to the envious eyes of visiting chiefs. The next state west of Moshi, Mpokomo, has recently been annexed by force by Mandara. Beyond this is the state of Uru, whose sultan, Selikia, is remarkable for extreme dullness and stupidity. There are two other states called Uru, one of which was long since depopulated, and the other has been overrun by Cena, and its population swept away or dispersed. Kibosho is next in order, lying a little higher up the mountain. Cena, its sultan, is the most powerful chief on Kilima-Njaro, and seems able to hold his own, although all the other states are allied against him. He is very friendly towards Europeans, and is very liberal in his presents of cattle, etc., to these favored visitors, of whom, however, he has seen but few. He has constructed a large series of underground passages or galleries beneath his boma or stockade. The huts are arranged in a circle, and a sloping shaft leads down from the floor of each hut. From this main gallery another runs off to open out upon a hillside several hundred yards distant. By means of this arrangement his wives and cattle would be able to escape in case of a surprise or sudden attack. Two hundred warriors keep nightly guard around his house.

The next important place is Machame, the most populous state in Chaga. The people are poor and ill governed, the sultan, Ngamine, being a "poor stick." They are much harried by Cena's warriors, who frequently attack them for slaves.

The most western of the Chaga states is Kibonoto, situated upon the long southwestern buttress of Kilima-Njaro. There are a number of other small places, *i. e.*, Kombo, Naruma, Mkinda, Shura, etc., having only a few hundred inhabitants apiece,

As a rule the Wa Chaga are not well made physically, scarcely a six foot warrior can be found and they are rarely well muscled (Fig. 2.) The



Fig. 2.

CHAGA MEN.

Mt. Kilima-Njaro, East Africa.

From photograph in U. S. N. M.)

women on the contrary, though short, are well built and very erect, due to the custom of carrying loads upon their heads. Their faces, though not negroid, are as a rule not at all pleasant, but some of the young

girls are pretty. Many women of Mandara's harem would be beauties in any country, in spite of their dark skins. The adults are a bad lot, lying and thievish, particularly the men. They compare badly with their forest-dwelling neighbors of Taveita, who are extraordinarily honest. These last are among the dirtiest and worst smelling savages I have ever met with, owing to their frequent unctions of rancid butter



Fig. 3.

CHAGA WOMAN.

Mt. Kilima-Njaro, East Africa.

(From photograph in U. S. N. M.)

and red ocher; while the Wa Chaga are comparatively clean, actually washing themselves occasionally. The wives are compelled to perform their ablutions daily and soap is in great demand. The children are much pleasanter in all respects than the adults, and for innate politeness compare favorably with those of more civilized nations. (Fig. 3.)

The men do a greater share of the field labor than is usual among the Africans. They keep the irrigation canals in repair, attend to the irrigating, and perform the heavy labor of breaking new ground for crops.

The sultans appear to have absolute power over the lives and property of their subjects, but there are many customs that control them. They claim the ownership of all cattle within their dominions, a monopoly of the ivory trade, and they call upon their subjects for making war, for building houses, and for cultivating lands, etc. Before any important measure, a council of chiefmen is held, except possibly by Mandara or Cena, whose rule is quite absolute. When people are wanted for any purpose, heralds are sent out in all directions, proclaiming that the sultan wants men to fight, or bring timber, or whatever he may need. Sometimes the herald blows upon a Kudu horn, and in cases of a general alarm he beats upon a drum. This is a long narrow affair, 4 feet long, by 5 inches wide, hollowed from the trunk of a tree.

Wars are common, and undertaken to obtain either cattle or slaves. These last are sold to the Suaheli traders, who are always waiting around the courts of the principal chiefs.

Honesty is not among the virtues of the Wa Chaga, but if the stranger is a friend of the sultan he is not troubled by thieving. They evince a great partiality for fowls belonging to other people, and seldom lose an opportunity of adding to their capital in this way. My neighbors, Messrs. Morris and Steggall, of the Church Mission Station here, are greatly annoyed by the nightly attempts upon their hen-houses, and the frequent removal of clothing, etc., which may be hung out to dry. My own reputation as a sorcerer prevented me from annoyance in this respect, but my own Suaheli followers were not so restrained, getting into my storehouse during my absence, and carrying off small quantities of cloth, beads, etc., that they imagined would not be missed. Repeated warnings proving of no avail, a spring gun was placed in the storeroom and one of the guardians of my station got shot in the leg while I was hunting. This proved an effectual warning and my reputation as a magician greatly increased, every one regarding the shooting as done by witchcraft.

The women greatly outnumber the men, probably in the proportion of five to three; partly due to the loss of life in war. Polygamy exists, every man has as many wives as he can get, so Chaga is not afflicted with old maids. The wives are purchased with sheep, goats, and cloth, and more rarely for cows. There is a show of carrying off the bride by force; the friends assemble, and festivities with singing, dancing, and yelling take place, and this lasts two or three days or as long as the pombe (beer) holds out.

The bride is decked out with all the beads she can borrow for the occasion, in the shape of girdles, necklaces, etc., and she is plentifully smeared with red ocher.

When a woman is about to increase the size of the family, a noisy iron rattle is worn upon her thigh. Morals are not of a high standard in Chaga and specific diseases have become very common, owing to the

coast caravans. If a Moshi woman is taken in adultery with a Suaheli, she is sold into slavery by order of Mandara, but the law seems rarely enforced at the present time.

The dress of both sexes formerly consisted of a cloak of dressed goat or calf skins, resembling chamois (wash) leather, like those of the Mas-



Fig. 4.

TORIKI OR WAR CAP.

Wa Chaga of Mt. Kilima-Njaro, East Africa.

(Cat. No. 151200, U. S. N. M. Gift of Dr. W. I. Abbott.)

sai. At the present time cloth (white sheeting) is generally used. Banderes (aniline red cloth) is held in high esteem, and so are bright colored calicoes. Cloaks of Hyrax skins, called bilelis, are much used by the men; they are very soft and warm. Boys and young men wear tails or triangular pieces of goat skin about 10 inches long hanging over the buttocks. The little girls wear but little besides a bead giraffe and a

small bit of cloth, worked with beads about $6\frac{1}{2}$ inches, hanging in lieu of an apron. All females wear as many bead girdles or belts as they can obtain, often ten to fifteen, also necklaces of large beads and thick collars of small beads. They are very fond of massive bracelets of pewter weighing several pounds each. Copper and iron wire is much used for armlets, rings, and anklets. Fashion is supreme here as elsewhere; only certain sorts of beads are used. Okuta, as the French pearl beads are called, are most in demand in Marang; the fashionable color is blue, while it is white in Moshi. Other beads that are most used are small seed beads, which in their turn are used scarcely anywhere else in Africa. The war dress of the warriors is copied from that of the Masai. A toriki or cap

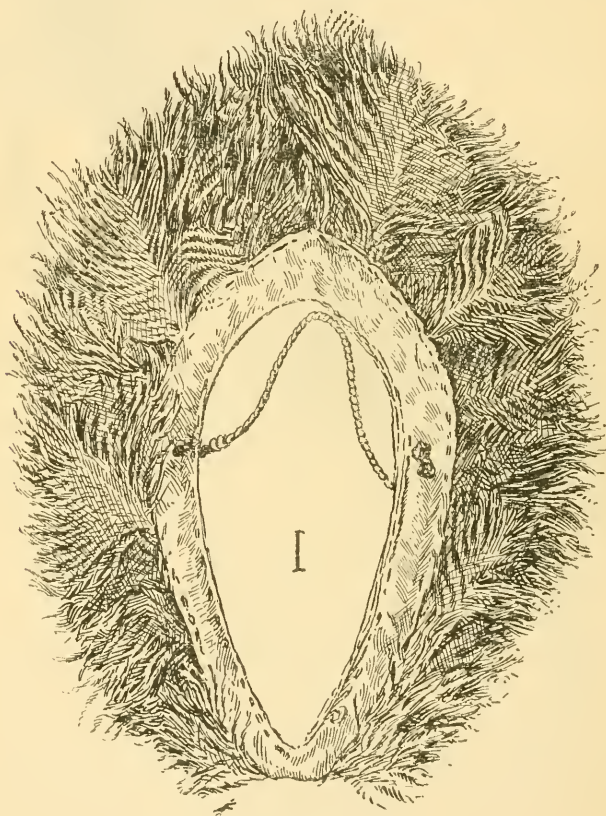


Fig. 5.

WARRIOR'S HEAD-DRESS.

Wa Chaga of Mt. Kilima-Njaro, East Africa.

(Cat. No. 154199, U. S. N. M. Gift of Dr. W. L. Abbott.)

of white monkey skin (Fig. 4), or a ruff of ostrich feathers around the face (Fig. 5), a large cape of vulture feathers, anklets of black monkey skin, with a bit of red cloth around the loins, form an attire striking and picturesque, to say the least of it. But as a rule one does not find all these adornments of dress upon one individual. A string of warriors

filing along a mountain pass with their big shields and great spears flashing in the sun, the red clothes contrasting with their black skins, is a fine sight, and one not to be seen outside the Dark Continent.

The arms are also of Masai model; the spears have long narrow blades, often 2 or 3 feet in length by 2 to 3 inches wide; there is a spike 3 to 4 feet long at the butt, and the wooden handle between only a foot or so in length. The blades are beautifully made and polished, and with their cimés or swords bear witness to the skill of the native blacksmiths. The cimés have blades 2 to 3 feet long by 1½ to 2 inches in width, also carefully polished.

The oval shields are of buffalo hide, 3½ by 2 feet, and painted with the heraldic pattern of the country to which they belong. Many nations



Fig. 6.

HOUSE IN MARANG.

Mt. Kilima-Njaro, East Africa.

(From photograph in U. S. N. M.)

now carry guns, often the Snider breechloader, but they are wretched shots, not having the slightest idea how to take aim. In fighting they generally throw away their guns after the first volley and fight with their spears. In Machame and Rombo, where there has been but little intercourse with strangers, the natives are poorly armed with small and indifferent spears and oval shields 3 feet long, of rhinoceros hide. Some few natives carry bows and poisoned arrows, but excepting a colony of Wa Kamba settled at Mandara's they are very poor shots.

There are no villages; each family lives by itself, in one or more huts, with a granary and some sheds, surrounded by banana plantations (Fig. 6). Each wife has a hut to herself. A house is about 15 to 20 feet in diameter and 10 to 12 feet high, beehive shape, built of grass over a framework of sticks (Fig. 7.) In Machame the roof is built of banana fronds and is umbrella-shaped; the walls are perpendicular and about 4

feet high (Fig. 8). The interior of a hut is anything but pleasant to the senses of the European; since it usually contains, in addition to the family, one or more cows, several sheep and goats, and a variable number of fowls. As a fire is kept constantly burning, the smoke, heat, and stench are frightful. The house yard is kept swept clean, and the whole surrounded by a high hedge of dracæna (Fig. 9). The cattle are kept shut up most of the time, and their grass is cut and brought in by the women. Sometimes, as in Rombo and Useri, it is necessary to go long distances, even eight or ten miles, into the plain to obtain good fodder.

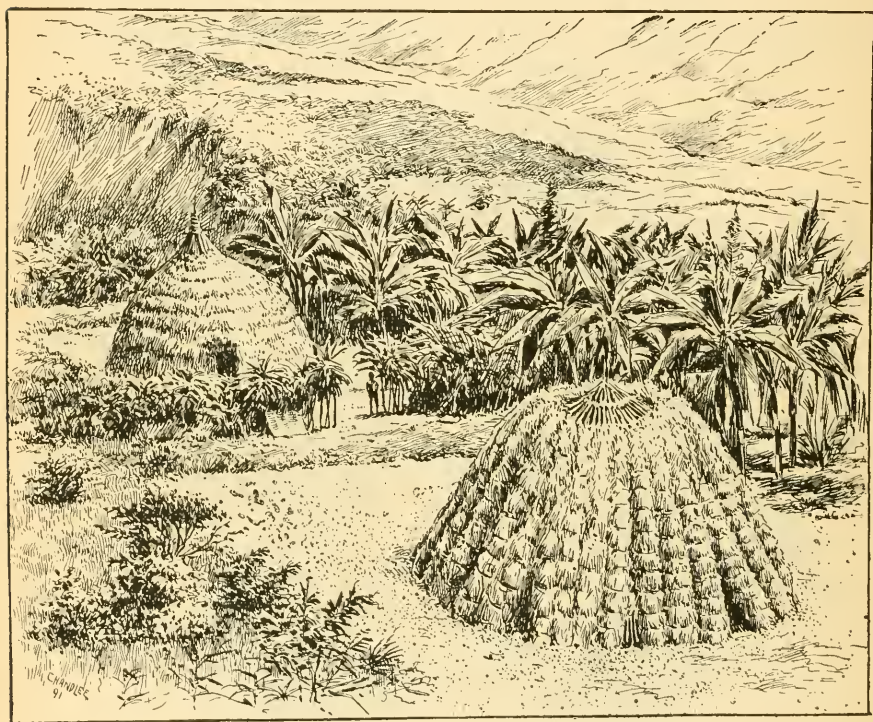


Fig. 7.

METHOD OF HOUSE-BUILDING, MOSHI.

Mt. Kilima-Njaro, East Africa.

(From photograph in U. S. N. M.)

As agriculturists, it would be difficult to find superiors to the Wa Chaga. Their neat little fields of grain are hedged in with dracæna, the soil hoed, weeded, and watered with the greatest care. The irrigation canals are constructed with great ingenuity, sometimes commencing many thousand feet up the mountain, carried down through the primeval forests, around ridges, over gullies on little aqueducts, until they reach the particular valley for which they were intended.

The language is a variety of Bantu, but being, like all savage tongues, very deficient in nouns; originally many words have been introduced

from the Suaheli. There are words for numbers up to ten, and then counting is continued by tens.

The agricultural implements are the usual V-shaped wooden hoe, universal throughout Central Africa—each arm of the V is about 18 inches long; a hoe formed by inserting a triangular flat piece of iron into a heavy wooden handle; axes made by inserting a small triangular piece of iron into a heavy wooden handle; adzes, scoops, or gouges for hollowing out wooden vessels; reaping-hooks with short thick blades. Besides, they make razors, chisels, awls, and large needles out of wire. Iron wire brought from the coast is their sole source of supply. The native blacksmiths are very clever at welding and are really good workmen considering their poor tools. They also make very neat chains of iron and brass. Domestic utensils are largely made from gourds. Plates and dishes are hollowed out from solid blocks of wood, as are also the pombe

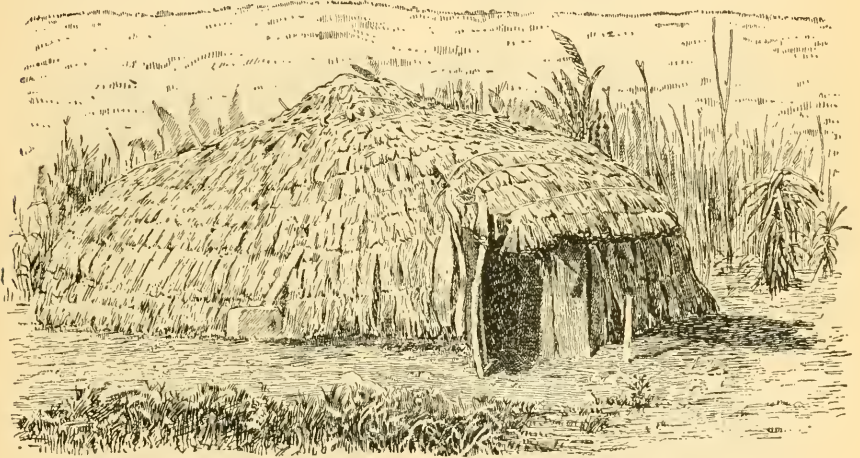


Fig. 8.

HUT IN MACHAME.

Mt. Kilima-Njaro, East Africa.

(From photograph in U. S. N. M.)

(beer) tubs, and the bee-hives, like long, narrow barrels, that everywhere ornament the trees, hanging from the branches.

The domestic animals are the cattle, sheep, and goats. The cattle are of the usual humped variety, of small size. A well-fattened heifer affords as good beef as one can desire. The Rombo especially have the knack of fattening cattle, and Mandarā always sends to them for this purpose such cattle as he needs for his own consumption or to present to strangers. The sheep are generally small, only weighing about 25 pounds dressed; they have fat tails and black heads, and the mutton is equal to the best Welsh. The goats are also very good. Those of the plains on the contrary—in Taveita, for example—are very poor eating; the mutton being tough and dry. Fowls are generally kept, but the

mongooses and genets are very destructive to poultry. Milk and butter are plentiful, but have an unpleasant taste, caused by the universal custom of washing out the vessels with another fluid derived from the same animal. The list of vegetable productions is very large for a savage community. Bananas and plantains, beans of six different varieties, sweet potatoes, yams, cassava, Indian corn, pumpkins, squashes, millet, sugar-cane, and papaws, are among them, while tomatoes and a sort of spinach grow wild in abundance. Salt, of poor quality however, is obtained from the plains of Kahe, south of the mountain.



Fig. 9.

GATE AND HEDGE IN MACHAME.

Mt. Kilima-Njaro, East Africa.

(From photograph in U. S. N. M.)

Great quantities of pombe, or native beer, are made from wimbi, a kind of sorghum. It tastes exactly like ordinary beer yeast, for which it is a fair substitute. The natives consume it in great quantities, especially the chiefs, who are half drunk most of the time. Europeans soon grow fond of it, though there is scarcely enough alcohol in it to affect a white man.

The religion, if it can be so called, is fetichism, universal throughout

Africa where Mohammedism has not penetrated; and, indeed, where it has reached, it is only added to the former. All sickness and misfortune are supposed to be due to the evil influence of some other individual. When boys and others would bring me natural history specimens they always did it secretly, or would bring them after dark, saying that if the Mangi (sultan) found it out he would beat them for bringing me materials for sorcery.

Scattered throughout the cultivated regions, there are numerous small groves of large trees, carefully preserved from injury. These are thought to be the abode of spirits. When a thunderstorm occurs, the spirits are passing from one grove to another. In Machame, which Mr. Skoens and I were the first Europeans to visit, before we were allowed to see the chief the signs had to be consulted, as follows: A goat was brought forward, both parties expectorated freely upon its head, and incantations were mumbled over it. A triangular piece of skin was cut

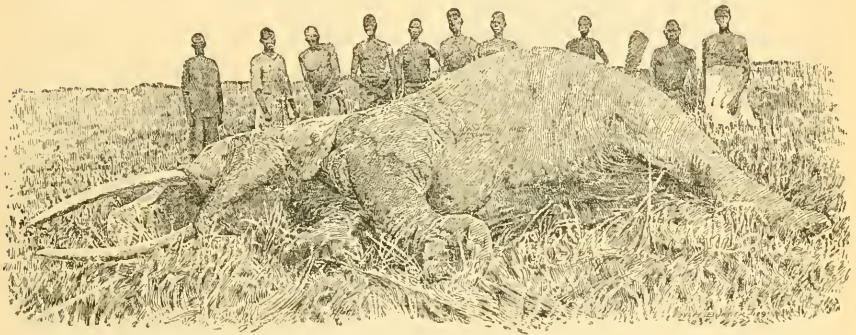


Fig. 10.

DEAD ELEPHANT.

Mount Kilima-Njaro, East Africa.

(From photograph in U. S. N. M.)

from its forehead, much to the animal's distress; this was divided into strips and a slit cut in each. One of these strips was placed upon the middle finger of each of us by a prominent native, whom, in turn, we ornamented in a similar manner. After this the goat was killed and the entrails examined. The signs being pronounced favorable, we then proceeded to his majesty's presence. He wished to become "blood brother" with me; so, after examining him to make certain of his not having any disease, the operation was proceeded with. Small nicks were made in our right forearms, and each of us then sucked the blood as it flowed from the arm of the other.

I pass now to a consideration of the fauna and flora of this region. The elephant is very common, but rarely met with; it frequents the forest and ascends the mountain to the central ridge. Lieut. Ehlers and I saw the tracks of a half-grown one in the snow at 16,000 feet. The natives take them in huge pit falls or shoot them with poisoned

arrows. (Fig. 10). The lion and rhinoceros, the latter very common in the plains, do not ascend the mountain. The buffalo and the eland go up to the central ridge. Leopards and hyenas wander about the cultivated zone at night. A black variety of the serval cat seems to be peculiar to the mountain. A variety of duiker and a dwarf antelope (*Nanotragus*) dwell at high elevations. I shot a strange dark-colored antelope, of a new species, in the forests at 10,000 feet. The beautiful black and white colobus monkey inhabits the forest zone, and troops of baboons do great damage to the plantations. The strange little cony (*Hyrax brucei*) is very abundant in the elevated forests, and furnishes very fine soft skins for the native's cloaks. Several beautiful sun birds are peculiar to the mountain, one of which (*Nectarinia Johnstoni*) does not descend below 9,000 feet, and is found at the snow line. There is a beautiful turacou and an unusual variety of feathered inhabitants. Many of the butterflies are peculiar. Last November vast clouds of locusts passed over, but few of them alighted and no damage was done. The Wa Chaga ascribe their immunity in this particular to having caught a number and given them *dower* (medicine) and let them go again, to tell the news of their illtreatment to the other locusts.

The forests are of great extent, but there is very little useful timber. Some splendid wood exists in the neighboring plain, in Taveta, Kahe, and along some of the rivers, but the quantity is not great. In the forest zone the timber is rather stunted. Fan palms and tree ferns are plentiful, the last reaching to 8,000 feet. The giant heather composes most of the higher forests, together with the curious *Senecio Johnstoni*, with its soft pith-filled trunk and head of broad leaves; it grows in gullies and sheltered places up to 14,500 feet. The plants of the temperate regions reminded one of northern Europe—heather and straw flowers, old man (southern wood), bracken, maiden-hair and polypody, and furze, or something that resembles it.

Kilima-Njaro is in German territory, nominally, at least, the line dividing it from the British concession lying just to the northward. It would be a decided surprise to these dusky rulers to know that they are German subjects, and no longer independent, and considerable persuasion by force of arms would be necessary to prove the fact to their satisfaction. For the consideration of a small present, one can hoist any flag he pleases without the least objection. Here in Moshi, four years since, Gen Matthews hoisted the red flag of Zanzibar. A year later, Consul Holmwood arrived and raised the British ensign. Finally, two years since, the Usagara Company put in an appearance and run up the German flag. Each successive party gave Mandara a good present and got him to agree to the foreign sovereignty, as they supposed. Mandara would keep the flag flying as long as his visitors remained, and then pull it down and give it to his wives to wear as an attractive garment.

For a white man who does not come to Africa to seek a living, and

who is fond of hunting, and does not care for civilized society, Chaga is a capital place to live in; sufficient to eat, fine climate like the summer of northern Europe, glorious hunting grounds within easy reach, and friendly natives. Nowhere in Africa is a white man so sought after. The chiefs are almost ready to fight one another for the possession of these desirable visitors, partly for the reputation which the presence of the stranger gives, and partly because the stranger is a source of presents. His caravan, too, gives a market to the people for their food and other productions. At the present time Mandara is on

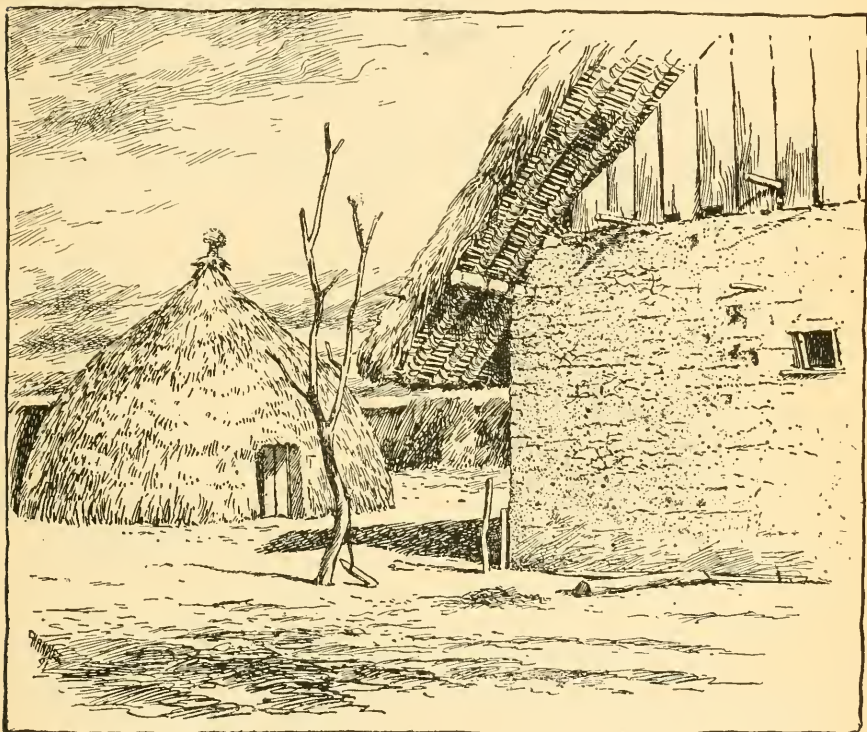


Fig. 11.

HOUSE OF MILIARI, SULTAN OF MARANG.
Mount Kilima-Njaro, East Africa.

(From photograph in U. S. N. M.)

rather bad terms with his son-in-law and principal ally, Miliari, sultan of Marang, alleging that the latter entices away his Europeans, the fact being that Miliari is by far the better fellow of the two, never inflicting the petty annoyances, such as stopping of the market or water supply, things to which the other is unfortunately addicted. Another grievance between them is that Mandara obtained Miliari's sister for a concubine, and never paid the stipulated price (eight cows) for her. Another reason why the white man is held in such high estimation is that no traders have as yet penetrated to these regions; all who have entered as yet

have been sportsmen, explorers, or missionaries, an entirely different class from the wretched mongrel Portuguese who have given Europeans such a bad name in South Africa. It is much to be feared lest when the horde of hungry adventurers and "riffraff" of all descriptions get loose upon east Africa, the white man's stock may fall considerably.

Kilima-Njaro with its cool, healthy, and bracing climate will without doubt some day be a great sanitarium for the Europeans from the hot and fever-stricken coast regions. The comparative convenience to the coast adds to its attractions. Kenia, which might otherwise rival it, is much more inaccessible, being 150 miles further inland and the route very difficult. Yet for my part I shall be sorry to see civilization invade this region, and hope the day may be far distant when a railroad (now projected) opens the way into the interior and drives off the herds of game that still pasture within sight of Africa's great snow mountains.

CATALOGUE.*

DRESS AND ADORNMENT.

DRESS. Of tanned goat skins, rubbed with red ocher, beaded on the edges. Sections of skin are pieced together into a sort of shawl. There are no sleeves and apparently no means of fastening the garment. Worn by boys and girls.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151585

DRESS. Of dressed goat skins dyed with red ocher, fringed on three sides.

Wa Chaga tribe; Machame, Mount Kilima-Njaro, East Africa. 151590

FACE-RUFF. Of ostrich feathers, fastened between two oval plates of leather. The rims of the plates are decorated with a line of red paint on a white ground. Worn around the border of the face in war. Loops on the front are for insertion of white ostrich plumes, generally two in number. [Fig. 5, page [12].]

Dimensions, 20 by 14 inches.

Masai tribe; Mount Kilima-Njaro, East Africa. 151199

The manner of wearing this ruff is shown in one of the plates to Fischer's "Masailand", Mittheil. Geog. Gesellsch. in Hamburg, 1882-'3, Heft, II.

FACE-RUFF. Of black feathers sewed between oval pieces of leather. Worn around the face by Chaga warriors in imitation of the Masai.

Outside dimensions, 23 by 16 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151537

FACE-RUFF. Halo of dark plumes set into an oval structure of leather. Worn around the face by warriors in imitation of the Masai.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151538

FACE-RING. Oval ring of leather without feathers. Worn around the face in war.

Masai tribe; Njiri, East Africa. 151224

OSTRICH PLUMES. Used as ornaments on apex of face ruffs.

Masai tribe; Mount Kilima-Njaro, East Africa. 151246

* The numbers in this catalogue relate to the entries in the Museum catalogue books of the Ethnological Series.

CASE FOR FEATHERS. Tube of cane or bamboo with leather caps.
Used by the Masai to hold the white feathers of the ostrich, two of which are placed at the top of the feather face-ruff.

Length, 19 $\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151813

WAR-BONNET (Toriki). Of monkey skin, with a long skirt. (See fig. 4, page [11].)

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151540

WAR-CAP (Toriki). Made of the skin of the Guereza monkey (*Colobus caudatus*).

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151200

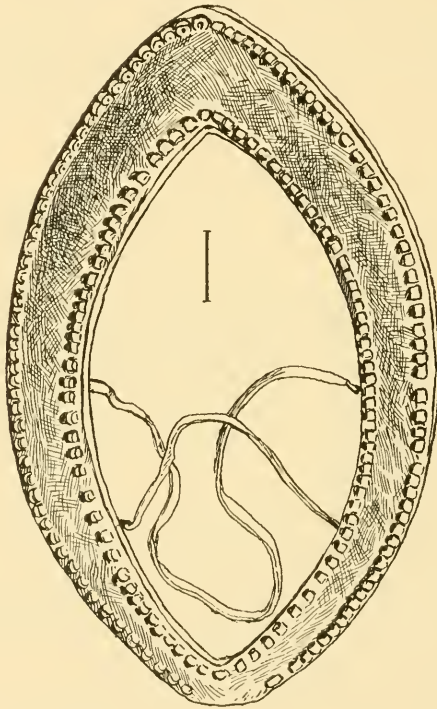


Fig. 12.

FACE RING.

Masai Tribe, Njiri, East Africa.

(Cat. No. 151224, U. S. N. M. Gift of Dr. W. L. Abbott.)

WAR-BONNET (Toriki). A hood made of the long yellow hair of the Guereza monkey (*Colobus caudatus*). It has a short skirt and is beaded on the head-band. The Wa Chaga wear it in imitation of the Masai.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa,

151539

- WAR-BONNET (Toriki).** Of monkey skin, with long skirt. The bindings and strap which holds it in place on the head are beaded.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151541
- WAR-BONNET (Toriki).** Of Guereza monkey skin (*Colobus caudatus*). Worn as a hood by Wa Chaga warriors in imitation of the Masai.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151542
- COMB.** Coarse wooden comb, worn in the hair; also used for scratching the head.
 Length, $4\frac{1}{2}$ inches. Width, $1\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151792
- COMB.** Neatly made comb of hard wood. The top in form of an open ring, serrated on the outer edge.
 Length, $3\frac{3}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151800
- COMB.** Of wood, colored with red ocher. Top large and rectangular, with opening cut in shape of an hourglass.
 Length, $4\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151822
- HAIR ORNAMENTS.** Of cow's bone, in shape of an arrow-head; with blue beads around the edges. Worn on the top of the head or on the brow.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151570
- EAR-PLUG.** Circular plug of hard wood blackened with age and grease. Grooved on the edge. Hole through center from which radiate four pairs of lines. Worn by men.
 Wa Chaga tribe, Mount Kilima-Njaro, East Africa. 151569
- EAR-PLUG.** Plug of soft wood, resembling the bung for a barrel. Worn by men in the lobe of the ear and in some instances the strain is so great as to break the skin.
 Diameter, $1\frac{1}{8}$ inches; $2\frac{1}{2}$ inches and 2 inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151238
- EAR-ORNAMENT.** Small pin of wood, wrapped at intervals with hair. At the end is a carved head. It is worn in a hole through the upper part of the ear, by males only.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151236
- EAR-STRETCHER.** Conical plug of wood, used to distend the hole in the lobe of the ear.
 Length, $2\frac{1}{4}$ inches; depth, $1\frac{1}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151237
- EAR-STRETCHERS.** Rings of blackened wood, fixed in the lobe of the ear.
 Diameter, $3\frac{3}{4}$ inches and $4\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151789

- EAR-STRETCHER.** An oblong block of wood, grooved, and buttoned in the widely-distended ear lobe.
Length, $4\frac{3}{4}$ inches; width, $1\frac{3}{4}$ inches; thickness, $1\frac{1}{4}$ inches.
Masai tribe; Mount Kilima-Njaro, East Africa. 151239
- EAR-RINGS.** One made of wood, wrapped with copper wire, and having two pendants of iron chain. The other is only a plain piece of horn, shaped for the framework of an ear-ring.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151234
- EAR-RING.** Of horn, with wrappings of beads, and fringe or tassels of iron chain.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151233
- EAR-RING.** Made of a quill, cut and bent into a loop at the upper end. At the lower end hangs a pendant of iron wire chain of native manufacture, so fine and neatly made as to resemble machine work.
Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151235
- EAR-RINGS.** Coils of iron wire served at the ends with fine copper wire. Fringes of iron chain hang down from the coils. Worn by men.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151563
- EAR-RING.** Coil of wire, one turn at each end wound with fine copper wire. This coil is worn horizontally and from it depends a fringe of very fine iron chain, each strand spaced off at the top with a blue bead.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151564
- EAR-RING.** A worn and broken specimen of the same style as the foregoing.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151565
- EAR-RING.** Wooden ring and fringe of iron chain. Fastened in the ear by means of a stick run through the ring behind the lobe of the ear.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151566
- EAR-RING.** Staple of horn, to one prong of which is attached an iron chain with amulets of cow's bone. Worn by men.
Wa Chaga tribe; Kahe district; Mount Kilima-Njaro, East Africa. 151567
- NECKLACE.** Made of beads and brass wire on leather base; projecting ornament on the edge of the rim, made of a polished disk of shell; pendant, a fringe of small chains.
Masai tribe; East Africa. 151213
- NECKLACE.** Made of beads of different sizes on a band of leather. Partly fringed with small chains and beads.
Masai tribe; East Africa. 151214
- NECKLACE.** Made of beads, with an iron chain fringe.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151228

- NECKLACE. Small blue and white beads, strung on a piece of stiff wire.
Masai tribe of Tokitoki; East Africa. 151211
- NECKLACE. A band formed of strands of native beads, which are seeds rubbed down so as to join closely. Necklace opens at the back.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151571
- NECKLACE. Made by looping on a cord a series of little bundles of bark.
Wa Chaga tribe; Kahe district; Mount Kilima-Njaro, East Africa. 151572
- NECKLACE. Made of iron and wrapped with iron wire.
Masai tribe; East Africa. 151212
- NECKLACE. Copper wire wound around core of brass wire. Worn by both sexes.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151219
- NECKLACE. Ring of brass, with design chiseled on the exterior.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151220
- NECKLACE. Brass chains, with neatly made pendants of brass wire coiled over iron wire.
Wa ny ika tribe; Mombasa, East Africa. 151798
- NECK-RING. Of brass, with incised ornament on the back. Much abraded by use. Said to have come from Ugweno.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151559
- NECK-RING. Of brass, with incised ornament on the back. Said to have come from Ugweno.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151560
- NECK-RING. Copper wire wound around a core of iron wire. The ends bent so as to form a clasp.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151561
- NECKLACES. Broad rings of leather closely beaded on the upper side, the beads being ground down to a flat surface, giving mosaic effect.
Masai tribe, of To'kitoki, East Africa. 151216
- NECKLACE. Made of leather and beaded; hanging bavet or fringe, of iron chains. The leather is stiffened with an iron ring which goes round the neck; the lower piece fastens to the girdle.
Masai tribe; East Africa. 151217
- NECKLACE. Leather ring, beaded; small fringe of iron chains.
Masai tribe; East Africa. 151215
- NECKLACE. Round necklace, wound with beads, with loops at the ends for tying.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151218

- APRON.** Cotton cloth, beaded and decorated; worn by females in front, suspended from a girdle.
 Length, 7 $\frac{1}{4}$ inches; width, 4 $\frac{1}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151240
- APRON.** Cotton cloth, beaded around edge and decorated with loops and fringe of iron chains. Worn by females in front, suspended from a girdle.
 Length, 7 $\frac{3}{4}$ inches; width, 3 $\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151241
- APRON (Kiwisi).** Made of a goat's skin by cutting a lozenge-shaped piece and folding it in the middle, with hair side in. The outside is rubbed with red ocher. Worn on the back of the hips.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151547
- APRON (Kiwisi).** Of goatskin decorated with beads and iron chains. Worn behind by young males.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151548
- APRON (Kiwisi).** Made of a double-triangular piece of goatskin with hair on inside. Decorated with beads and iron chains. Worn behind.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151549
- APRON.** Of leather, decorated with an edge of blue beads and finished off at a point with a cowrie shell. Worn behind.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151550
- SMALL APRON, "Fig leaf."** Coarse cloth beaded along the edges and fringed in front with iron chains. This with one or two other beaded girdles forms the sole attire of a young girl.
 Length, 10 inches; width, 2 $\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151784
- APRON.** Made of a kite-shaped piece of cowskin with hair on, folded once. Worn behind the hips.
 Length, 15 inches; width, 10 $\frac{3}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151198
- APRON.** Of goatskin, beaded and decorated with small iron chains on the flesh side. Made by folding a kite-shaped piece of skin in the middle. Worn behind the hips.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa.
- APRON.** Narrow strip of cloth beaded on the sides and fringed at the ends with strings of beads. Worn by young girls.
 Width, 2 inches; length, 9 inches, including fringe.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151574
- CLOAK** Made of dressed goatskins, heavily beaded around edge.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151591

- CLOAK.** Made of cony skins (*Dendrohyrax validus*); square; tied around the neck. Worn by males only.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151586
- CLOAK OR CAPE.** Made of cony skins, squared and sewed together. Worn over the shoulders.
 Size 4 by 2 feet.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151587
- CLOAK.** Made of cony skins sewed together and simply worn over the shoulders as a protection in cold weather.
 Three feet square.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151588
- CAPE.** Made of three goatskins sewed together.
 Length, 3 feet 3 inches; width, 21 inches.
 Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151589
- WAR CLOTH (Maibére).** For trade with the Masai all cloth must be made up into maibére. The red stripe in this specimen is too narrow and therefore was rejected in trade.
 Masai tribe; Mount Kilima-Njaro, East Africa. 151819
 In dress, implements, and in weapons, fashion reigns supreme among these fastidious aborigines. Frequently, an assagai offered in traffic will be rejected with the remark "We have not used that pattern for ten years."
- WAR CAPE (Maliti).** Made of the feathers of the vulture and the guinea fowl, fastened to a groundwork of goatskin. Worn over the shoulders by Masai warriors.
 Masai tribe; Mount Kilima-Njaro, East Africa. 151767
- WAR CAPE (Maliti).** Made of the feathers of the vulture and guinea fowl, which are fastened to a groundwork of leather. Worn over the shoulders by Masai warriors.
 Masai tribe; Mount Kilima-Njaro, East Africa. 151768
- BEADWORK.** Parallel bands of beading on leather, sewn to the cloth as an ornament; usually on the bottom of the cloak.
 Misahi tribe; Mount Kilima-Njaro, East Africa. 151245
- ARM-RINGS.** Made of the toe nails of the elephant. Mere bands or rings cut out so as to pass over the hand. They are of the same width all around, varying from one-fourth to one-twelfth of an inch in thickness.
 Dornma, East Africa. 151232
- ARMLETS.** Cut from the butt end of a buffalo horn; resembling the widely-gaping mouth of the skeleton of a fish.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151229
- ARMLET.** Beaded leather band, with fringe of iron chain. Worn by women.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151225
- ARMLET.** Beaded leather band. Worn by women.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151226

ARMLET. Of twined copper wire.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151221

ARMLET. Beaded leather, fringe of iron chains, with pendants of flat coils of copper wire.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151222

ARMLET. Of buffalo horn; resembles the gaping jaws of a fish. A loop of native-made chain hangs from the armlet. Worn by men only.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151553

ARMLET. Double, crescent-shaped section of elephant's tusk, hollowed out to fit the upper arm, which passes between the two crescents. Well made. Worn by men.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151554

ARMLET. Semilunar in outline, made of ivory. The arm passes between the two half-moons. Very old.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151555

ARMLET or ARM RING. Of old ivory. Small. Worn by men. Beautifully colored and polished by use.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151556

ARMLET. Strand of blue beads, alternating with loops of fine iron and copper chain. A piece of chain two inches long is hung at both ends on the string of beads and depends in a loop. Thus alternate on the string the blue beads and the ends of the chain loops.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151562

ARMLET. Round plait of grass and string, reddened with ochre.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151780

BRACELET. Open brass bracelet, with incised ornament on the back.

Dimensions, $3\frac{1}{2}$ inches by 3 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151557

It is said to have come from Ugweno. The origin of the brass is unknown; certainly none of such character is at present brought into the region. Ugweno Mountains are situated 20 miles southeast of Kilima-Njaro.

BRACELET. Rude, heavy, round bar of tin, bent into an oval. Worn by girls. Women wear much larger ones, often weighing several pounds.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151558

BRACELETS. Wire coiled around leather thongs. Worn by males.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151783

BRACELET. Squared iron bracelet, worn by males.

Diameter, $2\frac{3}{8}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro. 151788

- RINGS. For the finger, made of a coil of copper wire. Worn by women.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151227
- BEADED BELT. Round belt of blue beads. Loops at the end for securing. Worn by females.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151573
- BELT. Round belt, beaded. Worn by women and girls. Sometimes a dozen are worn at one time, and the apron hung over them in front.
 Length, 27 inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151207
- BELT. Flat band of leather, beaded.
 Masai tribe; East Africa. 151208
- BELT. Leather band, beaded.
 Masai tribe; East Africa. 151209
- BELT. Made of leather and beaded.
 Width, 1 $\frac{3}{4}$ inches.
 Masai tribe; East Africa. 121210
- ANKLET. Cowrie shells, with dorsal portions removed, strung to a leather band.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151230
- ANKLE-RATTLES. Little iron bells of semilunar outline, with a slit at the bottom formed by the juxtaposition of the edges. The clappers are small iron balls. The bells are strung on a thong of leather by means of double holes in the top.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151231
- ANKLETS. Made of monkey fur.
 Masai tribe; Njiri, East Africa. 151223
- LEGLET. Of monkey skin (*Colobus caudatus*), and worn on the calves of the legs with the joined ends in front, tied with thongs of rawhide. Edges beaded.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151543
- LEGLET. Of black monkey skin, beaded around upper edge.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151544
- LEGLET. Bands of black monkey skin, worn after the fashion of the Masai.
 Wa Chaga tribe; Kabe district, south of Kilima-Njaro, East Africa. 151545
- LEGLET. Made of reddish gray monkey skin, beaded around upper edge.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151546
- PLUME. Made by drawing the skin of two monkey tails over a stick. Probably used as fly-flappers.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151551
- PLUME. Monkey-tail skin. Probably used as a fly flapper.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151552

TWEEZERS. Rude iron tweezers, formed by doubling a strip of iron together in the middle. Used for plucking out the beard.

Length, $2\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151786

RAZOR. Rough iron blade, native manufacture. The Angolese use a razor square at the end, like that of Europeans.

Length, 5 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151181

RAZORS (Kikito). Made of rude iron. Small. Used for shaving scalps.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151782

SNUFF-BOX. Spent cartridges of brass, beaded, stopper fitted, and chains appended.

Length, $2\frac{3}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151778

SNUFF-BOX. Made of a brass cartridge shell, decorated with beads; an iron chain and a brass carrying chain are attached.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151568

SNUFF-HORN. Tip of a horn with leather bottom shrunk on; leather handle fastened on the side, to which is attached an iron chain.

Length, $3\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151242

SNUFF-HORN. Tip of horn with leather bottom shrunk on, suspended by iron chain which is attached to a leather handle on side of horn.

Length, $3\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151243

SNUFF-HORN. Made of the tip of a buffalo horn; with wooden bottom.

Length, $6\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151244

Snuff is made by pounding tobacco leaves in a mortar. The tobacco has a rich, pleasant odor.

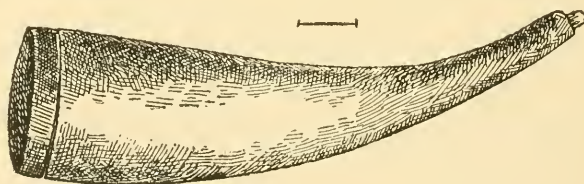


Fig. 13.

SNUFF HORN.

Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No. 151244, U. S. N. M. Gift of Dr. W. L. Abbott.)

ARCHITECTURAL OBJECTS AND FURNITURE.

- NATIVE HUT** (Numba). Model much too small, and door proportionately too high. (See figs. 6, 7, and 8.)
 Wa Chaga tribe; Moshi District, Mount Kilima-Njaro, East Africa. 151818
- NATIVE HUT.** Model made by Chaga boy. Usual dimensions 10 to 11 feet high and 12 to 15 feet diameter.
 Height, 4 inches.
 Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151804
- WICKER-DOOR** (Molie). Model. The door in native huts slides between two upright sticks and the door jamb.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151797
- WOODEN STOOL** with four legs. Cut out of a log of wood, and smeared with red ocher.
 Height, $8\frac{1}{4}$ inches; depth, $7\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151816
- WOODEN STOOL** with three legs. Painted with red ocher.
 Height, 7 inches.
 Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151762
- MAT.** Made of skin. Placed on the ground for sleeping during a journey. Other tribes carry mats of bulrushes. Bought of Masai war party, probably from N'jiri, met with on the Tsavo River.
 Width, 18 inches.
 Masai tribe; Mount Kilima-Njaro, East Africa. 151201
- FOOD-HOOK** (Kiwili). Natural forked branch, peeled. Hung in huts for the suspension of articles to protect them against vermin.
 Length, $14\frac{3}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151793
- GRANARY** (Kikombi). Model of a conical thatched hut woven of rods. Entrance under the eaves. The usual size is about 8 feet high, $4\frac{1}{2}$ feet in diameter. Model made by a Wa Chaga boy. These huts are set up on four stones.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151794
- GRANARY** (Kikombi). Model, differing from the other granary by being placed on supports.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151796

CULINARY UTENSILS.

TRAY-BASKET, (Kitunga.) Coiled tray made of palm leaf. Used for carrying meal, or for winnowing grain.

Diameter, 12 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151772

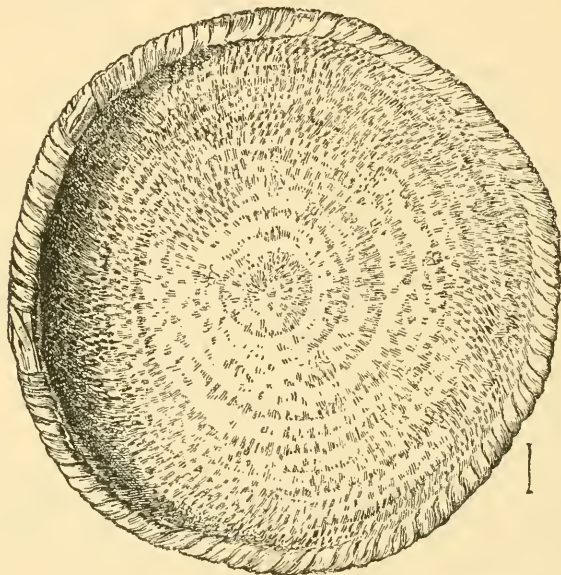


Fig. 14.

COILED BASKET.

Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No. 151772 U. S. N. M. Gift of Dr. W. L. Abbott.)

TRAY. Coiled basket-work, made by sewing strips of Diteba palm leaf over a coil of bulrush.

Depth, $11\frac{1}{4}$ inches; height, $2\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151202

BASKET-TRAYS. Coiled, shallow baskets made of palm, generally used to carry flour.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151582

BAG. Conical; made of fiber closely twined.

Length, 29 inches; width, 29 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151204

- BAG.** Twined native weaving of brown fiber, with narrow bands of red.
Width, 2 feet; depth, 2 feet.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151583
- BAG.** Of cord, closely twined.
Length, 19 inches.
Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151760
- WALLET.** Made of twined petioles of banana.
Length, 23 inches; width, 21½ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151203
- TWINED WALLET.** Made of coarse fiber in twined weaving and imitates so closely in appearance the wallets of American Indians on the northwest coast as to be almost indistinguishable. (See Smithsonian Report, 1884, Pt. II, p. 293.)
Size, 16 by 15 inches.
Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151759
- WALLET.** Large sack wallet, crocheted work in brown twine.
Length, 30 inches.
Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151825
- HAVERSACKS.** Made of palm leaves, checker-weaving.
Suahili, Taveita, East Africa. 151248
- COOKING POT (Kimunga).** Earthenware pot, made by coiling. Manufactured by the Wa Kahe. Used for cooking.
Height, 7¼ inches; diameter, 7 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151817
- BUCKET.** Body, a cylinder hollowed out from a log, the cover and bottom of cow skin. Used for honey, and also for carrying flour or other materials.
Height, 13 inches; diameter, 8 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151196
- WOODEN JAR (Kimbéla).** Wooden vessel with lid. Lugs on side for cord, which also passes through the lug on lid. Blackened on the outside by charring. Used to hold sour milk, etc. [Fig. 15.]
Height, 10 inches; diameter, 8 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151773
- WOODEN CANISTER (Kimbéla).** Hollowed out from solid wood with a curved knife. Blackened by charring. It has a lid or cover, and is a fine piece of wood-work.
Height, 9¼ inches
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151753
- CANISTER (Kimbéla).** Made of wood, with lug and lid. A fine example of wood-work.
Height, 9½ inches; diameter, 5¼ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151195

WOODEN VESSEL. Cup with handle, hollowed out of solid wood with a curved knife.

Diameter, $5\frac{1}{4}$ inches; height, $4\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151769

WOODEN CUP. Light wooden cup, with handle having ring of brass. Probably used for milk.

Capacity, three-fourths of a pint.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151812

CUP. Made of gourd. Etching partly scratched and partly burnt with the back of a knife.

Height, $6\frac{3}{4}$ inches; diameter $3\frac{1}{4}$ inches.

Wa Chaga or Wa Taveita tribe; East Africa.

151192

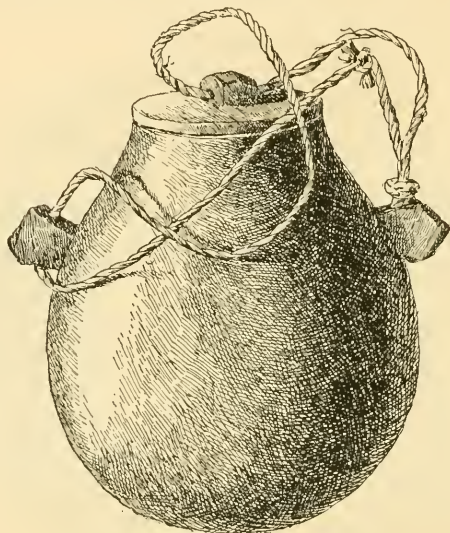


Fig. 15.

WOODEN VESSEL.

Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No 151773, U. S. N. M. Gift of Dr. W. L. Abbott.)

BOWL. Very thin, showing skilled work. Made of wood, in imitation of a gourd, having a lug or handle.

Height, $6\frac{1}{4}$ inches; diameter, $8\frac{7}{8}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151190

BOWL. Made of wood; thin; with handle.

Height, 3 inches; diameter, 6 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151194

WOODEN BOWL. Light wooden bowl, with flat bottom.

Diameter, $5\frac{1}{2}$ inches; height $3\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151814

PLATE. Probably a manioc mush bowl. Blackened by fire. Cut with a bent knife.

Length and width, $10\frac{1}{4}$ by $9\frac{1}{4}$ inches; height, $2\frac{3}{4}$ inches.

Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa.

151189

DISH (Kitela). Very thin, made of wood, with handle, and blackened on the outside by burning.

Depth, $12\frac{1}{4}$ inches.

Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151191

DISH. Wooden dish, rounded bottom, small lug at the side, decorated with beads and iron chain.

Diameter, $6\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151802

WOODEN TRENCHERS. Flat wooden dishes used by Dr. Abbott for his table. [Fig. 16.]

Diameter, $17\frac{1}{2}$ inches to $12\frac{1}{4}$ inches.

Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151754

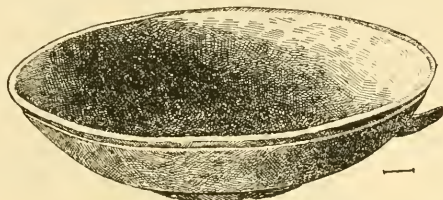


Fig. 16.

WOODEN TRENCHER.

Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No. 151754, U. S. N. M. Gift of Dr. W. L. Abbott.)

DISH. Model of Wa Rombo dish, oblong and rectangular, with lug at one end. [Fig. 17.]

Length, 5 inches.

Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151775

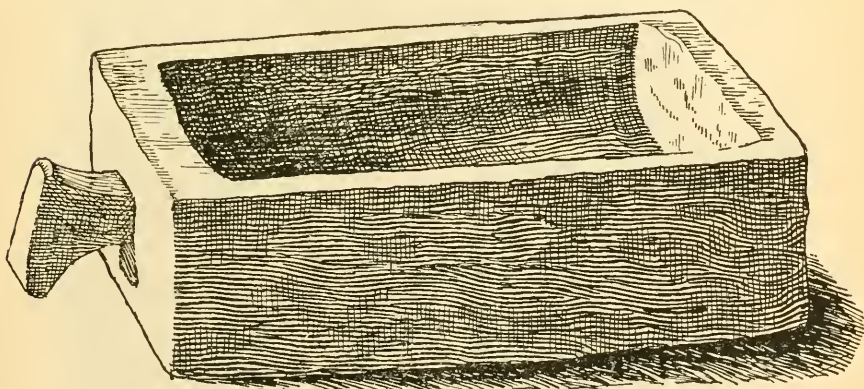


Fig. 17.

WOODEN FOOD DISH (Model).

Rombo of Mount Kilima-Njaro, East Africa.

(Cat. No. 151775, U. S. N. M. Gift of Dr. W. L. Abbott.)

WOODEN DISHES. Carved out of a single piece, and blackened on one side. These dishes have each but one lug on the side.

Diameter, $6\frac{3}{4}$ to $10\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151779

WOODEN DIPPER. Flat-bottomed wooden dish with lug on the side.
[Fig. 18.]

Diameter, 6 inches; height, 4 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151806

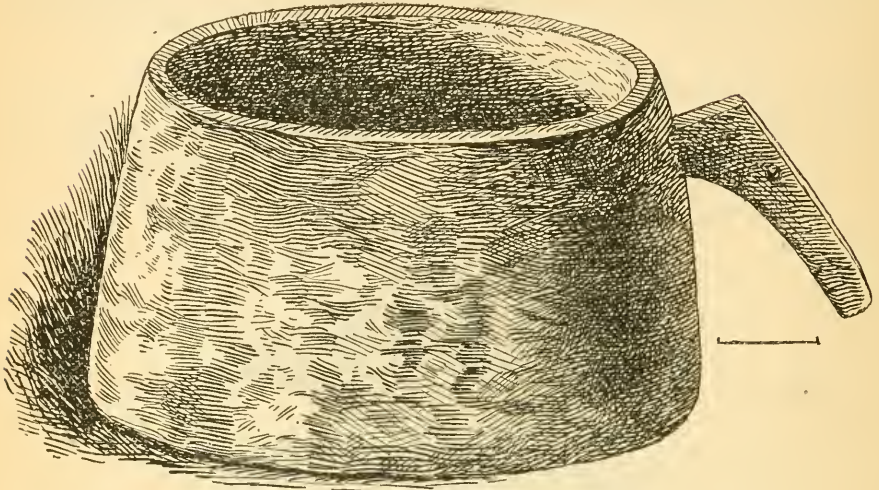


Fig. 18.

WOODEN DISH.

(Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No. 151806, U. S. N. M. Gift of Dr. W. L. Abbott.)

WOODEN DISH (Kirambo). Light bowl of wood with one lug. [Fig. 19.]

Diameter, 8 inches; height, 5½ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151811

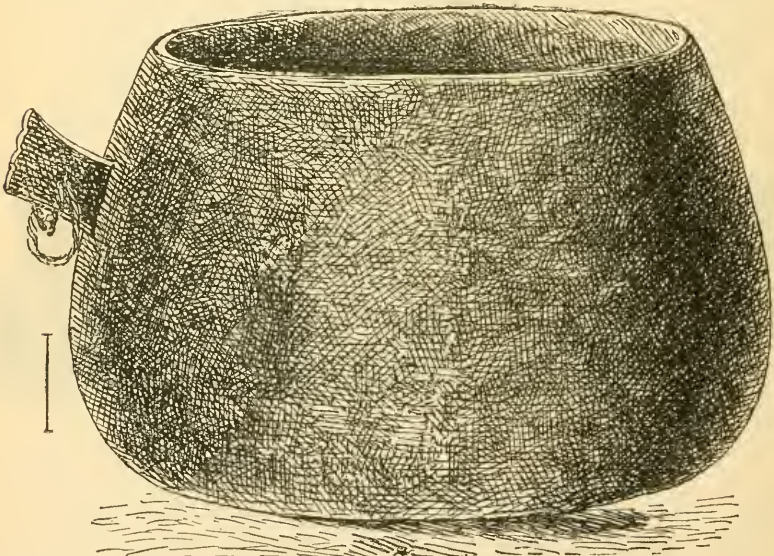


Fig. 19.

WOODEN DISH.

(Chaga of Mount Kilima-Njara, East Africa.

(Cat. No. 151811 U. S. N. M. Gift of Dr. W. L. Abbott.)

SPOONS. Carved from a single piece of wood.

Length, 14½ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151193

SPOON OR LADLE. Made of wood.

Length, 16½ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151580

SPOONS. Made of wood.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151581

DIPPER. Etched gourd; used for dipping beer.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151205

POMBÉ TUB (Kibo). Cut out of solid wood. Lugs on each end for carrying. Used for keeping beer, called pombé.

Length, 16½ inches; depth, 13 inches; width, 11 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151755

POMBÉ TUB (Kibo). Model. The usual size holds from 5 to 20 gallons.

Length, 5 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151758

POMBÉ CUP (Kimbéla). Neatly hollowed vessel of wood with handle like a pipkin. Rounded bottom; blackened exterior. [Fig. 20.]

Height, 6½ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151790

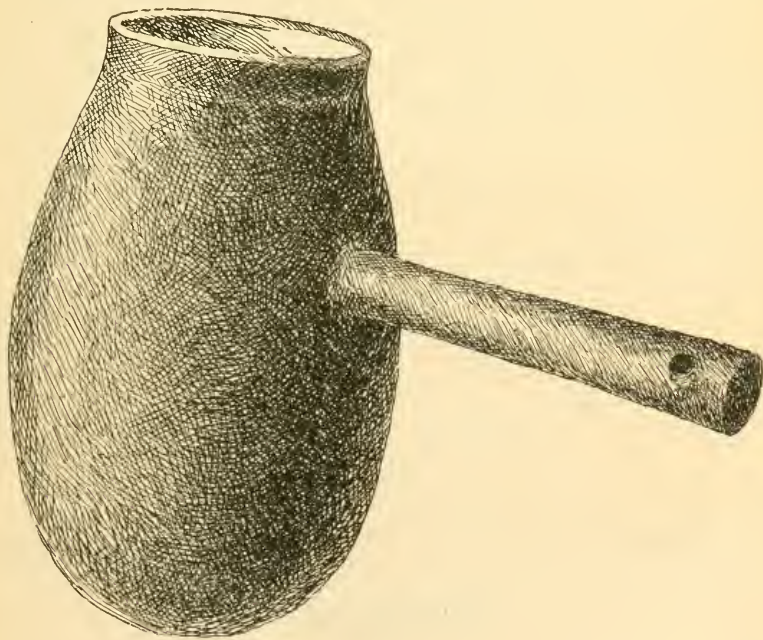


Fig. 20.

WOODEN CUP FOR DIPPING BEER.

Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No. 151790, U. S. N. M. Gift of Dr. W. L. Abbott.)

- POMBÉ DIPPER.** Used in dipping beer or pombé, made from the seeds of sorghum.
 Length of handle, $26\frac{1}{4}$ inches; height of gourd, $5\frac{3}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151770
- POMBÉ DIPPER.** Made of an etched gourd.
 Length, 20 inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151826
- POMBÉ TUB (Kibo).** Model of beer tub with lateral partition, differing thus from the usual form. Made by a boy. Large tubs hold from 5 to 20 gallons.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151809
- POMBÉ GOURD-DIPPER.** Gourd etched, beaded, and decorated with bits of iron chain; handle wound with string of blue and red beads.
 Length of handle, 20 inches.
 Wa Chaga tribe, Mount Kilima-Njaro, East Africa. 151810

AGRICULTURAL AND INDUSTRIAL IMPLEMENTS.

AX (Soka). Usual form of a wedge-shaped blade, inserted in the bulbous extremity of the handle.

Length, $17\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151807

AX (Soka). Heavy handle of hard wood. In the knob at the end of the handle is set a chisel-like blade of iron. With this tool all timbering is done.

Handle, 20 inches long; blade, 7 inches long.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151765

AWLS. Name of larger, kiwili; of smaller, sumio. Iron awls, set in wooden handles. Larger awl used for making shields, smaller one for sewing skin and cloth.

Length, 13 inches, $7\frac{1}{2}$ inches, and 6 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151777

WOODEN Mallet (Ku'ooli). Fork of a tree, one limb trunecated, the other forming a handle. Used to hammer leather for shields.

Length, $9\frac{3}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151774

FIRE-STICKS. With channeled fire-socket. Hearth, small, rounded piece of worm-eaten wood with rawhide loop in one end to prevent loss. Drill, a branch of a tree trimmed down. [Fig. 21.]

Drill, $19\frac{3}{4}$ inches; hearth, 4 inches long.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151823



Fig. 21.

FIRE STICKS.

Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No. 151823, U. S. N. M. Gift of Dr. W. L. Abbott.)

- FIRE-STICKS.** Hearth, semilunar; drill with pole cut out of the head for an attaching string, which is fastened to the hearth.
Length of drill, 21 inches; hearth, $4\frac{3}{4}$ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151824
- NATIVE HOE.** Crutch of a tree, with one prong sharpened. Native manufacture, and used in most of the cultivation.
Length, $16\frac{1}{2}$ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151766
- HOE.** A short knob-stick, through which the poll of the iron blade is firmly driven.
Handle, 16 inches long; blade, 7 inches long.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151764
- HOE (Koombi).** Curved iron blade set in the bulbous extremity of the handle, as in the ax above described.
Length of handle, $18\frac{1}{4}$ inches; length of blade, 9 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151808
- CURVED KNIFE, or GOUGE (Ukombo).** Used for excavating wooden jars and dishes. Blade curved at the end in form of a hook or horseshoe, and fastened in strong wooden handle.
Length, 15 inches; blade, $1\frac{3}{4}$ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151787
- HOE.** Crutch of wood with one prong sharpened, the other forming a handle. This is the most primitive form of hoe.
Length, $21\frac{1}{2}$ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151771
- CHOPPER and REAPING HOOK.** Used in planting manioc. A stalk is taken in the hand, thrust into the ground, and the section above ground chopped off with the hook, etc. Used also for planting sugar cane. Also used in harvesting the crops.
Length, 13 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151182
- REAPING KNIFE or HOOK.** Slightly curved blade, set in wooden handle, used in cutting corn, etc.
Length of blade, $4\frac{1}{2}$ inches; handle, $15\frac{1}{2}$ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151803
- REAPING KNIFE.** An exaggerated form of the common small knife in use among the Chagas. For cutting corn, etc.
Blade, $6\frac{1}{2}$ inches; handle, $11\frac{3}{4}$ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151801
- WOODEN MORTAR (Kieura).** Model of mortar used by natives to pound grain, etc. Made by a native.
Height, $6\frac{1}{2}$ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151757

MORTAR. A half-size model. A pestle 6 feet long and 3 inches in diameter is used with the original.

Height, $11\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151763

CHURN-DASHERS (Kidigo). Paddle made by crossing two flat pieces of wood in splits made in the bottom of the rod. Twirled between the palms of the hands in making butter.

Lengths, $16\frac{1}{4}$ and $21\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151820

BEE-HIVE (Modu). Model, hollowed log of wood, with plug in each end, hung in trees out in the wilderness, for the wild bees to enter. The natives have no idea of living bees as we do.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151756

BEE-HIVE (Modu). Model, same as the one previously described.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151821

GOAT-TROUGH (Imongu). Model of a trough hollowed out of a log of wood. Used for feeding goats.

Length, $10\frac{1}{4}$ inches; width, $4\frac{3}{8}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151799

GOAT-CAGE (Timba). Model of a cage or basket of woven rods, in which young goats are kept to wean them.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151791

PARTRIDGE-TRAP. Model of the wicker hutch used for catching birds.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151776

RAT-TRAP. The rat puts his head in the hollowed end of a stick and gnaws a cord which releases a spring stick, and draws a loop around its neck.

Length, $13\frac{1}{2}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151781

WEAPONS OF THE CHASE AND OF WAR.

KNOB STICK. Of hard wood; knob formed on end of stick. Used also as a tobacco pestle. [Fig. 22.]

Length, 20 inches.

Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151186

All over the world among savages are to be found various forms of throwing or hurling weapons, *e. g.*, the knob-kerry, the Moki rabbit-club, etc. These knob sticks are used by the Africans with great effect.



Fig. 22.

KNOB STICK.

Chaga of Machame, Mount Kilima-Njaro, East Africa.

(Cat. No. 151186, U. S. N. M. Gift of Dr. W. L. Abbott.)

KNOB STICK. First cut with an adze, then dressed with the knife, and afterwards rubbed down with the leaf of a shrub which is very rough.

Length, 25 inches.

Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151185

KNOB STICK. Branch of hard wood, dressed at one end to a rude bulbous head.

Length, 21½ inches.

Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151187

KNOB STICK. Made of heavy black wood. [Fig. 23.]

Length, 14 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151188

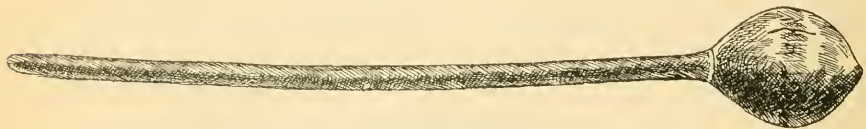


Fig. 23.

KNOB STICK.

Chaga of Mount Kilima-Njaro, East Africa.

(Cat. No. 151188, U. S. N. M. Gift of Dr. W. L. Abbott.)

ARROWS AND CASE. Point, triangular iron, loosely set into the poisoned foreshaft. Wrapped with leather before use; lashings of sinew, elephant's hair, and palm. Midrib secured by resin. Made by the Wa Kamba for the Wa Taveita. Quiver of cowskin.

Length, 27 inches.

Wa Kamba tribe; North of Mount Kilima-Njaro, East Africa.

151184

QUIVERS AND ARROWS (Uda-quiver, m'fi' arrows). Tubes of leather, with leather cap and thong for suspension. Arrows poisoned. Made by the Wa Kamba, living in Moshi. The arrows are three-feather, foreshafted, finely made. Sold in bundles of four or five, tied up in corn husks. [Fig. 24.]

Length, 26½ to 29 inches (quiver).

Length, 25¾ to 27 inches (arrows).

Wa Kamba tribe; Mount Kilima-Njaro, East Africa.

151815

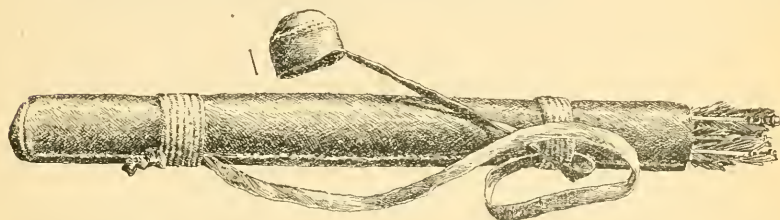


Fig. 24.

QUIVER AND ARROWS.

Wa Kamba of Moshi, Mount Kilima-Njaro, East Africa.

(Cat. No. 151815, U. S. N. M. Gift of Dr. W. L. Abbott.)

BIRD-ARROWS. Long, slender, tapering rods, well polished; nock, bulbous; triple-feathered; points formed by sharpening the shafts and covering them with a poisonous coating.

Length, 24¾ inches.

Wa Teita tribe; East Africa.

151833

BOW. Round wooden bow; well made and strong; hooped at intervals with rings of sinew. String of sinew. The hoops are used to prevent the wood from splitting.

Length, 4 feet 10 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151516

BOW. Round wooden bow, hooped or banded in one place with a ring of sinew.

Length, 4 feet 7¾ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151517

BOW. Made of a plain branch, with a few projecting knobs. No nocks for string, the occurrence of which is extremely rare in African bows.

Length, 4 feet 3 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151518

BOW. Formed from a branch. The back of bow presents undressed surface, with knobs protruding; belly rounded. No nocks. A most primitive type of this weapon.

Length, 4 feet 9½ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151519

SPEAR. Nearly all of iron, very finely made. Spud square, filed off at edges. Blade with median ridge, and narrow in proportion to length. The necks of all these spears are wound with copper wire or sinew. The iron of which the spears are made was brought from the coast by traders.

Length, 7½ feet; blade, 3 feet long, 2½ inches wide; handle, 7½ inches long.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151521

SPEAR (mk'uke.) Nearly all of iron, finely made and polished. Blade, long, lanceolate, beautifully tapered, and socketed at the lower end for the very short shaft. Spud, a long, gently tapering rod of iron, square in cross section. Wound with copper wire at the points of attachment of the blade and the spear.

Length, 7 feet 2 inches; blade, 31 inches long.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151522

SPEAR. Nearly all of iron. Blade very large, broad, lanceolate, high median ridge, fastened to the short handle by a socket. Spud, a long, tapering rod of iron, square in cross section, the corners filed down.

Length, 6 feet 11 inches; blade, 20 inches long, 3¾ inches wide.

Wa Chaga tribe; Marang district, Mount Kilima-Njaro, East Africa.

151523

SPEAR. Finely made. Broad blade, beautifully modeled, socketed onto the short handle. Spud square in cross section.

Length, 7 feet; blade, 26 inches long, 4½ inches wide.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151524

SPEAR. Unpolished, broad, short blade, shows marks of the native hammering. Fastened to a long shaft with a socket wrapped with copper wire. Spud short, as in the typical assagai.

Length, 6 feet 5 inches; blade, 19½ inches long, 4½ inches wide.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151525

SPEAR. Broad, short blade, having the double median flexure. Long handle; short spud.

Length, 6 feet 4 inches; blade, 18 inches long.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151527

SPEAR. Spud of square iron, blade polished, broad, lance-shaped. Socket wound with copper wire.

Length, 6 feet, 3 inches; blade, 22 inches long, 3⅝ inches wide.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151528

SPEAR. Long, very slender blade, not polished. Spud square. Showing the work as it comes from the smith's hands. All the work of polishing is done by the warrior.

Length, 6 feet 1 inch; blade 23 inches long.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151529

SPEAR. Short spud. Unpolished blade, long shaft.

Length, 6 feet; blade, 20 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151530

- SPEAR.** Very broad and short blade, nicely polished. Wound with copper wire; short shaft.
Length, 5 feet 7 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151531
- SPEAR.** Unpolished blade short and narrow; shaft long; short, square-sectioned spud.
Length, 5 feet 7 inches; length of blade, 12 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151532
- SPEAR.** Blade, small.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151533
- SPEAR.** Blade, small; tang thrust into the shaft and fastened on with leather; handle very hard wood.
Length, 5 feet 6½ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151534
- SPEAR.** Hard-wood shaft; finely curved blade.
Length, 5 feet 11 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151535
- SPEAR.** Shaft of white wood; spud, pentagonal.
Length, 6 feet 11 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151536
- SHIELD.** Rim formed by turning up the edge of the rhinoceros hide. Stiffener, wrought of wood. Outside of shield painted in zigzag patterns, with boss in center. Found in Rombo and various other states.
Length, 3 feet 1 inch; width, 13½ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151744
- SHIELD.** Of buffalo hide. Like 151744 in construction. Painted inside and outside in red, white, and black, with totem of Moshi. A loop on the side for the arm. A piece of skin protects the knuckles at the hand grip.
Length, 3 feet 2 inches; width, 21 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151746
- SHIELD.** Constructed like 151744. Painted outside with totem of Moshi.
Length, 3 feet 9½ inches; width, 2 inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 15174
- SHIELD.** Made like 151744. Totem of Moshi on exterior. For boys.
Length, 3 feet 2 inches; width, 15½ inches.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151748
- SHIELD.** Made of buffalo hide stretched over a hoop and fastened at the edges with thongs. Painted on both sides, with totem of Pokomo.
Elliptical, 3 feet 5 inches long; 16½ inches wide.
Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151749

- SHIELD.** Made of rhinoceros hide. Like 151744. Zigzag creasing on exterior. Boss over the hand grip.
 Length, 3 feet; width, $13\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151750
- SHIELD.** Of buffalo hide. Made like 151744. Painted in totem of Kilemma.
 Length, 3 feet 10 inches; width, 22 inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151751
- SHIELD.** Made of buffalo hide. Painted with totem of Moshi. The design means something different from the ordinary Moshi totem.
 Length, 3 feet 10 inches; width, 22 inches.
 Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151752
- SHIELD.** An oval or elliptical slab of bark, bound at the edges with a rod wrapped in leather and sewed to the edge of shield. Strengthened, a piece of wood running through middle and formed into a hand grip. Thongs run from each end of the hand grip to the extremities of the shield to keep it curved. Between the hand grip and shield is a piece of heavy hippopotamus skin, horseshoe-shape, over which is fixed a band of cow skin to keep the rough surface from abrading the hand. The shield is penetrable and rather crudely made. It is used by the poorer and least advanced tribes of Kilima-Njaro; being most common in Machame and Rombo.
 Length, 4 feet.
 Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151520
- SHIELDS.** Made of the skin of the buffalo. Oval. Painted in red and white designs (totems). Wooden stiffener with hand grip. Thongs tied from hand grip to each end to keep shield curved.
 Height, 3 feet 5 inches; width, $19\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151206
- KNIFE.** Handle of rhinoceros hide; blade of iron, long and narrow, with median groove.
 Blade, $4\frac{1}{2}$ inches long; handle, 4 inches long.
 Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa. 151179
- KNIFE.** Handle of lightning wood. Blade of iron, long and dagger-shaped.
 Length of blade, 3 inches; handle, $4\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151180
- KNIFE.** Narrow blade, set in wooden handle.
 Length, 8 inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151795
- KNIFE.** Sheathed like a sword. Handle of wood, blade of steel, dagger-shaped.
 Length of blade, $6\frac{1}{2}$ inches; handle, $4\frac{1}{2}$ inches.
 Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151510

- KNIFE.** Wooden handle; blade lanceolate. Nicely made and decorated sheath of rawhide.
 Length of blade, $7\frac{1}{2}$ inches.
 Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa. 151511
- KNIFE.** Long blade, with central ridge beveled evenly to the sides. Wooden handle, neatly made.
 Entire length, 16 inches; blade, $11\frac{3}{8}$ inches.
 East Africa. 151512
- KNIFE.** Blade beveled evenly, wooden handle.
 Whole length, $13\frac{3}{4}$ inches; blade, $8\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151513
- KNIFE.** Long narrow blade and slim wooden handle. Sheath, rawhide similar to that on swords in process of construction.
 Length entire, 16 inches; blade, $10\frac{3}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151514
- DAGGER.** Long blade of uniform width, no dissymetry. Handle of wood. Sheath of goatskin.
 Blade, $14\frac{1}{2}$ inches; width, $\frac{7}{8}$ inch; handle, $4\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151176
- DAGGER.** Arm-belt of creased leather, handle of lightning wood.
 Blade, $7\frac{1}{2}$ inches long; handle, 4 inches long.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151177
- DAGGER OR KNIFE.** Sheath of cow skin; thong for arm, antelope skin; handle of wood, bound with copper wire.
 Length of blade, $4\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151178
- BOY'S SWORD (Cimé).** Long spatulate blade. Wooden grip with skin shrunk over it. Sheath of skin sewed and shrunk over three pieces of wood. Belt, a narrow strap of leather. Most sheaths have a button on the end, and a staple near the middle to hold the belt. These blades are sharp only on the expanded portion near the point.
 Blade, $11\frac{1}{2}$ inches; grip, $4\frac{7}{8}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151501 (a)
- BOY'S SWORD (Cimé).** Long spatulate blade, with median ridge; grip of wood. A ridged effect is given by shrinking leather over a spiral cord. Sheath of antelope skin. Belt, a strap around which a flat thong has been wound spirally.
 Blade, $13\frac{3}{4}$ inches; grip, 5 inches. Widest part of blade, $1\frac{3}{4}$ inches. Narrowest part of blade, $\frac{5}{8}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151501 (b)

SHORT SWORD (Cimé). Grip worn nearly smooth. Sheath made of leather which is shrunk over plates of wood. Belt made by crimping a piece of leather and spacing between the ridges, at intervals, with beads.

Length of blade, $14\frac{3}{4}$ inches; hilt, $4\frac{1}{8}$ inches. Blade, $2\frac{1}{10}$ inches at widest part.

Wa Chaga tribe; Machame district, Mount Kilima-Njaro, East Africa.

151501 (c)

SHORT SWORD (Cimé). Sheath old and worn out; sword good. Crimped belt.

Length of blade, $18\frac{5}{8}$ inches; grip, 5 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

121502

SHORT SWORD (Cimé). Sheath old and worn out; sword good. Crimped belt.

Length of blade, $16\frac{1}{2}$ inches; width, $2\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151503

SHORT SWORD (Cimé). Sheath rather poor; blade good. Belt plaited with "in and in" plait.

Blade, 18 inches; grip, $5\frac{7}{8}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151504

SHORT SWORD (Cimé). Crimped belt. The blades of these swords are made of iron wire brought from the coast.

Length of blade, $19\frac{3}{4}$ inches; grip, $5\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151505

SHORT SWORD (Cimé). Hilt rather smooth; scabbard large for the blade. Crimped belt.

Length of blade, $21\frac{1}{8}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151506

SWORD (Cimé). Made after the long narrow pattern of the Masai. Scabbard with button at bottom. Bound in one place with serpent skin. No belt.

Length, $23\frac{1}{2}$ inches.

Wa Chaga tribe; Moshi district, Mount Kilima-Njaro, East Africa.

151507

SWORD. Long, narrow, Masai sword. Crimped belt.

Length of blade, 27 inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151509

SHORT SWORD. Lozenge blade, symmetrical, a rare feature in African blades. Handle wood and leather, the latter the skin of a calf's tail, wet and shrunk on. Scabbard, of goatskin, with stiffener of wood. Belt creased; scabbard covered with cotton cloth.

Blade, $16\frac{1}{2}$ inches long; length, $2\frac{3}{8}$ inches wide; handle, $4\frac{7}{8}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151174

SWORD (Cimé). Narrow blade with spatulate point. Hilt covered with rough leather; no guard. Sheath of wood, covered with leather; belt of crimped leather.

Length, $28\frac{1}{4}$ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151785

SWORD (Cimé). Heavy lozenge or lanceolate iron blade, mounted in plain wooden handle. Scabbard of goatskin. In Kimbundu language, of Angola, they call the central ridge the "spinal column," the two edges "teeth."

Blade, 2 feet long; handle, 5 inches long.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151173

SHORT SWORD (Cimé). Two-edged, creased belt. Scabbard of goatskin.

Blade, 13 inches long, 1½ inches wide; handle, 4½ inches.

Wa Chaga tribe; Mount Kilima-Njaro, East Africa.

151175

MUSICAL INSTRUMENTS AND CEREMONIAL OBJECTS.

- RATTLE.** Large iron bell with two balls as sounders. Worn by women during first pregnancy, on the lower part of the thigh.
 Length, $4\frac{3}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151577
- RATTLES.** Two little semilunar iron bells, tied to a thong. Worn on the ankles.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151575
- ANKLE RATTLES.** Iron bells, semilunar in shape, with sounders of iron balls, fastened in pairs to a thong of leather and worn on the ankles in dancing.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151576
- DRUM.** Tube of wood closed at one end with a skin head. Used to call the population to arms. It is carried under left arm and beaten with right hand.
 Length, 4 feet 2 inches; diameter, $4\frac{1}{2}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151584
- COW BELL.** A piece of iron, wrought thin and cut in shape of a dumb bell, then bent at the center so as to form a rude bell, with a clapper attached to the narrow portion at the top.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151578
- COW BELL.** Native iron work, similar to No. 151578.
 Height, $5\frac{1}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151579
- GAME BOARD (Óchi).** Rudely hollowed-out compartments in slab of wood, for playing *ban*, a common game throughout Africa. It is played by a number of round nicker seeds or pebbles placed in the different divisions. The game is not understood by Europeans.
 Length, 22 inches; width, $9\frac{1}{4}$ inches.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151805
- MEDICINE NECKLACE.** Toe-hoofs of some animal, filled with "medicine," the preparation or composition of which is not known. Strung on an iron chain.
 Wa Chaga tribe; Mount Kilima-Njaro, East Africa. 151247