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## Tribes and Languages

OF<br>\section*{COSTA RIGA.}

BY WM. M. GAB.
(Read before the American Philosophical Society, Aug. 20, 1875.)

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## ON THE

# INDIAN TRIBES AND LANGUAGES OF COSTA RICA. 

BY WM. M. GABB.<br>$\qquad$<br>(Read before the American Philosophical Society, August 20, 1875.)

## Chapter 1.

## GENERAL ETHNOLOGICAL NOTES.

The Indians of Costa Rica, with the hardly probable exception of the Guatusos, all belong to one closely allied family. I only make this possible exception in deference to the almost absolute ignorance which yet exists in regard to this isolated tribe.

Before entering on the consideration of the better known peoples of the southern part of the Republic, it may be as well to make a brief summary of what is known of the Guatusos up to the present time. They occupy a part of the broad plains north and east of the high volcanic chain of North-Western Costa Rica, and south of the great lake of Nicaragua, especially about the head waters of the Rio Frio. I have fortunately fallen in with various persons who have entered their country, and who have had an opportunity of seeing the people and their mode of life. The stories of some are so evidently exaggerated that I shall suppress them; but by carefully sifting the evidence and giving a due preponderance to the testimony of those whom I consider most reliable, I have arrived at the following results.

Thomas Belt, the author of "The Naturalist in Nicaragua," says he has seen of them, five children and one large boy, "and they all had the common Indian features and hair ; though it struck me that they appeared rather more intelligent than the generality of Indians." He also says that "one little child that Dr. Seeman and I saw in San Carlos in
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1870, had a few brownish hairs among the great mass of black ones ; but this character may be fomd among many of the indigenes, and may result from a very slight admisture of foreign blood." All the persons with whom I bave eonversed assert that the name Guatuso, as applied to the tribe, is given on account of a reddish or brown tint of their hair, resembling the little aumal of that name (the Agouti). This is also denied by Mr. Belt, who sitys that the names of animals are often applied to Indian tribes by their neighbors, to distinguish them. Allowing full weight to this opinion, supported by analogy as it is in North America, (e. g. Snukes, 1 do not think it fully warranted in this case.
Of half a dozen persons with whom I have conversed ; people who have been on the upper Rio Frio, all, with one exception, distinctly assert that they have seen people of light color and with comparatively light hair among them. One person went so far as to assert, that in a fracas in which he nearly lost his life, his most valiant and dangerous opponent was a young woman, a mere girl, "as white as an Englishwoman," (tan rubia como una Inglesa). Another, who had a more peaceful opportunity of seeing a party of two or three women, himself unseen, used the samo words in describing one of them. I believe, however, that these were exaggerations. Still another person told me that they were of all shades "from a rather light Indian color, to nearly white, the same as ourselves" (referring to the varying shades in the mixed blood of the Costa Rican peasantry). However, in an interesting conversation with Don Tomas Guardia, President of Costa Rica, I learned that when, some years ago, he headed a party passing through their country for military purposes, they encountered one or more bodies of these people and had some skirmishes with them. He says they are ordinarily of the color of other Indians, although rare exceptions exist, of individuals markedly lighter than the others, and really possessing a comparatively white skin and brownish or reddish hair. This is in keeping with the statements made to me by others whom I consider reliable, and must, I think, in deference to the authors be taken as final.
The orgin of light complexions among an isolated tribe of Indians has, of course, been the source of much speculation, but General Guardia, and Don Rafael Acosta, an intelligent gentleman of San Ramon, not far from the borders of the Guatuso country, both suggested to me, independently, the same theory. They claim that when, a couple of centuries ago, the town of Esparza was sacked by the English freebooters, many of the inhabitants took refuge in the mountains, and were never afterwards heard of. These refugees were many of them pure whites, men and women. Now from Esparza, it is only about three or four days' journey to the borders of the Guatuso country, and it does not seem improbable that some of these poor wretches may have found their way there. If this is really the case, the admixture of blood, and consequent lightening of color is satisfactorily accounted for.

- In consequence of almost uniform bad treatment, robbery and massacre
included, to which these people have been subjected by the rubber hunters, who enter their country from Nicaragua, and their not possessing fire-arms to repel the aggressors, they have become so timid that they fly on the first approach of strangers. The few who have been captured are either young children, or persons taken by surprise. I have been unable to learn of any in Costa Rica, although a boy, now dead, lived for a while in Alajnela. A few are said' to have been taken to Sau Juan del Norte, (Greytown,) and to Grenada, Nicaragua. The Alajuela boy, although he learned the meaning of some Spanish words, so as to know what was meant, when spoken to, was represented as sullen. When asked the names in his language of things that he was familiar with, like plantain, banana, \&cc., he always remained silent, and neither coaxing nor threats could extort a word.

The people are invariably represented as of short stature, broad, and of enormous strength. They live in neighborhoods; they cannot be called villages, the houses being scattered over an extensive area and at distances of from one to several hundred yards apart. The houses are low, consisting of a roof, pitching both ways from a ridge pole, and resting on very short but very thick posts. This is thatched with palm leaf and is entirely open at the ends and sides, under the eaves. Their tools are stone axes set in wooden handles, good steel machetes (all agree that they have seen these, but where do they get them?) and planting sticks similar to those used by the Bri-bris. With these tools they cultivate great quantities of plantains, bananas, yuca, coco, (Colocasic esculentum,) besides possessing large plantations of the pehi balla palm and of cacao. Of the furniture in their houses, I was told of cord hammocks and net bags, similar to those of Bri-bri, and of blocks of light wood for seats. They seem to sleep on the ground floor of their houses, simply spreading down a layer of plantain leaves. Their bows and arrows are described as similar to what I have seen elsewhere, except that the arrows are not supplied with any harder points than those furnished by the pehi balla wood. The dress is described as identical with the old styles in Talamanca; mastate breech cloths for the men, and the same material, in the shape of short petticoats for the women.
The country of the Rio Frio is said to consist of broad fertile plains, unsurpassed in beanty and fertility by any lands in the Republic. The Rio Frio itself is large and is navigated by the large canoes of the huleros, or rubber hunters, to a point within three days' walk of Las Cruces on the Pacific side. But the poor inoffensive people who inhabit this region are now so intimidated by the "Christians" who have visited them, that they can only be approached by a foreigner by stealth. If they can escape they do so, but if driven to bay, or think they can overpower the strangers, they greet them with a flight of arrows. They are especially afraid of firearms, and a pistol shot is sufficient to depopulate a settlement.
I believe the above short statement contains the most reliable informa-
tion ever yet accumulated with reference to the Guatusos. I have carefully rejected many wonderful stories told me by persons claiming to tel ${ }^{1}$ what they saw, and have only availed myself of the accomits of those who seemed to exaggerate least, or whose position forbade me to donbt their assertions.

The tribes of Southern and Sonth-eastern Costa Rica are better known. The Terrabas, living on the Pacifie slope, and their neighbors, the Borueas or, as they call themselves, Bruncas, live under complete subjection to the laws of c'osta lica, and the rule of a missionary priest. They may be strictly called civilized. But those on the Atlantic slope have had a powerful ally in the forces of nature, in resisting the civilizing efforts of the Spauish invaders. The heary rains of the Atlantic seaboard produce a luxuriance of vegetation that may well nigh be called unconguerable. Broad swamps, dank and reeking with malaria threaten the European with bilions fever, fatal to energy if not to life. Three centuries ago Columbus sailed along the coast from the Bahia del Almirante, and in his usual florid style called this the Rich Coast, and yet it has never yielded to the conqueror or paid him tribute. Two centuries ago a little colony was planted far back in the mountains and one or two outlying missionary posts were scattered among the then powerful tribes. But a just retribution fell on San José de Cabecar. The hardy mountaineers did not submit to the oppressors' yoke like the gentle and hapless victims of Cuba and Santo Domingo. Eveu now the traditions are well preserved among them, and I have listened to more than one recital of outrages which I dare not believe to be exaggerated. Father Las Casas tells of even worse oppressions. In 1709 the people rose and massacred all who fell into their power. A pitiful remnant escaped from the colony, to wander for weeks in the woods and finally a handful reached Cartago. The Viceroy of Guatemala, in retaliation sent forces by way of the forest trails from Cartago and others across the mountains by way of Terraba. They surrounded, killed, and captured all the Indians they could, and carried their prisoners to Cartago. Some of these were divided among the settlers as servants, and have left a strong tinge on the cheeks of many a would-be high-toned Costa Rican. The remainder were settled in the villages of Tucuriqui and Orosi, where, though partly civilized, they still retain their original language, badly corrupted with Spanish. Since this disastrous euding to the colony, both parties have kept up a wholesome dread of each other and no further efforts have ever been made to found a colony on the Atlantic side of the country. At the same time, the Indians not only dread, but hate the Spaniards and even a trace of Spanish blood, or fluency in the language on the part of a dark-skinned or dark-haired person is a warrant for suspicion. It is not a hatred of the white race. Euglishmen, Americans, and Germans are invariably respected and treated well, by the same poople who are either insolent to the Spaniard or treat him at best with restraint.

On the Atlantic slope, there are three tribes intimately allied socially,
politically, and religiously, but differing markedly in language. The Cabecars occupy the country from the frontiers of civilization to the western side of the Coen branch of the Tiliri or Sicsola River. Adjoining them, the Bri-bris occupy the east side of the Coen, all the regions of the Lari, Uren, and Zhorquin and the valley lying around the mouths of these streams. The Tiribris, now reduced to barely a hundred souls, live in two villages on the Tilorio or Changinola River. It is said that on the head waters of the Changina, a large fork of this latter stream, there are yet a few individuals of the Changina tribe, but the other Indians report them as implacably hostile and their very existence is only known by vague reports of their savage neighbors. The Shelaba tribe, formerly living on the lower part of the sane river is now entirely extinct. A few half-breeds are all who perpetuate the blood, and their language is utterly lost. Still further down the coast, beyond the Costa Rican boundaries is another allied triba, partly civilized, in so far as that they trade and work a little and drink a great deal of bad rum, spending most of their earnings on that bane of the race. They are called by foreigners Valientes. Crossing over to the Pacific slope, the Terrabas are tribally identical with the Tiribis. The tradition still exists in a vague form, that they are emigrants from the Atlantic side; but when or why the emigration took place, is forgotten. The home of the tribe is in a very narrow, rough cañon, traversed by a river that might better be called a torrent, a country strongly coutrasted with the fertile plains and broad savannas of Terraba, and it is not improbable that under the press of a crowded population several migrations took place. They still tell how, twenty or thirty years ago, a priest came over from Terraba, baptized all who would submit to the rite, and by glowing stories of the abundance of meat and other inducements that he shrewdly imagined would tempt them, carried off over a dozen of their best men, who never returned. A glance at the vocabulary will show how little separated are these two brauches of the tribe in language. The Borucas or Bruncas, who occupy a little village, not far from the headquarters of the Terrabas, are apparently the older occupants of the soil ; perhaps crowded into a corner by the invaders.

Other tribal names are mentioned by various authors, such as Biceitas, \&c. The name Biceita is not known in the country, and, although used to the present day outside of the Indian country, is unknown to them, or at best, is supposed to be a Spanish word. The district of that name is probably the western part of Bri-bri, the most eastern point to which the slave-hunting expeditions from San José Cabecar penetrated. The Blancos are properly the Bri-bri tribe, but this word is rather loosely used, and is often applied alike to the Cabecars and Tiribis.

But little can be gathered of the history of these people. What happened in the times of their grandfathers is already ancient history and partly forgotten. All recollection of the first arrival of the Spaniards is now lost. They have no traditions of the use of stone implements before the introduction of metal. When asked what they did for axes before the traders
came among them, I conld get no more satisfactory answer than that they went to Cartago to bny them. I have beeu told a vagne story, however, that long ago there were two bands living in the conntry now occupied by the Bri-bris. Those living in the valley, around the junction of the branches of the Tiliri were more powerful than the monntaineers, and foreed the latter to pay tribute when they descended to hunt, or cut the material for their lark-eloth elothing. But gradually the lowlanders died out ; the highlanders, becoming the more powerful, rebelled against these impositions, and eventually emigrated in such numbers to the comntry of the former, that the distinetion became lost by an amalgamation of the two parties. Even now the Bri-bris, who occupy the lowlands and most of the hill regions of the Siesola, look down on their neighbors the Cabeears and treat them as inferiors. The Cabecars, on the other hand, tacitly acknowledge even a social supremacy, and in a mixed party submit to assume the more menial occupations, like bringing water and wood; and are always obliged to wait until the last when food or drink is being served. Few of the Bri-bris speak the Cabecar langnage, but there are few of the Cabecars who do not speak Bri-bri, and they usually use it in the presence of strangers. The Cabecars have no chief of their own, but are entirely under the rule of the Bri-bri chief, and have been, from time immemorial. Their subjugation is, in short, complete. At the same time they have the honor of relgions supremacy, in so far as that the high priest, the "Ursekurca," whose office will be explained further on, belongs to their tribe. The ordinary priests, the "Tsugurs," who, like the "Uselicr"C," are hereditary, come from a group of families ou the Coen River, but belong to the Bri-bri tribe.

About the begimning of this century there was a bitter war between the Bri-bris and the Tiribis. The youngest members of the war parties are now mostly dead, and the few remaining survivors are very old men. The last of the warriors proper, mature men at that time, clied about 1860, at an extremely advanced age. I have heard the traditions from both sides the question, and of course each party throws all the blame on the other. The Bri-bri story is that some people, a whole family, living on the extreme eastern portion of the Uren district, were found murdered, and no clue discovered to the perpetrators of the act. Not very long afterwards other murders occurred in an eqnally mysterions manner, which, threw the whole country into a state of excitement. Afterwards a small party was attacked by some uuknown Indians, a portion killed and some left to tell the tale. The traeks of the strangers were followed throngh the woods, always kecping to the east, until they were lost. Following this elue, the chicf of the Bri-bris sent out a party of armed seouts, who cimbed to the summit of the dividing ridge, overlooking the Tilorio. From here they discovered for the first time that they had neighbors; seeing their houses and cormfields in the distance. A large war party was fitted ont; they passed the mountains, and without waruing descended on the unsuspecting
enemy, killing large numbers. After this a desultory warfare was kept up; each party striving to take the other unawares, and to capture as many heads as possible. This went on nntil the Tiribi, reduced to a handfnl, sued for peace and submitted as a conquered people to the Bri-bris. Siuce then, the chief of the Bri-bris has always retained the right of final choice of chief of the Tiribis, after nomination of the candidate by his own people. Beyond this, no actual control has ever been exercised. The Tiribi story does not differ from the above, except in the origin. It throws the blame of the first aggression on the Bri-bris. In some respects the Tiribis are superior to the Bri-bris. The children are more respectful to their parents; the women are more modest in dress and behavior, and the men are more industrious. This is their boast, and while they look down on the Bri-bris, the latter despise them as a conquered people. Very little communication occurs between the two tribes, and I could learn of but two cases of intermarriage between them.

I have already said the Tiribis and Cabecars are under the political rule of the Bri-bris. The form of government is extremely simple. One family holds the hereditary right of chieftainship, and up to 1873 the reigning chief had theoretically full powers of government. The succession is not in direct line, but on the death of the incumbent, the most eligible member of the royal family is selected to fill the vacancy. Often a son is passed over in favor of a second cousin of the last chief. The present chief is first cousin of his predecessor, who was nephew of his predecessor, who was in turn a cousin to his.

Formerly the chiefs held only a nominal contrul over their people. The principal advantages derived from the position were rather of a social than a political nature. The chief was conducted to the best hammock for a seat on entering a house. He was treated to their great luxury, chocolate, when persons of less note were fain to be content with chicha. But in case of a quarrel the chief had to defend himself from the blows of the long, heavy fighting-stick like any ordinary mortal. Within the last decade or two, the traders, by throwing their influence on the side of the chief, have caused him to be treated with more respect, and endowed him with the attributes of a judge over his people, in all ordinary disputes. About 1870 or 1871, Santiago, the then chief, paid a visit to Cartago and San José; was well treated, and received an appointment from the Goverument, for the position which he already held, with the full approval of his tribe. It had been customary for the heir-apparent, the future successor, to hold a position as second, or subordinate chief, with little or no authority. One Lapiz was at that time second chief, and claimed that he was more entitled than the other to the chieftainship. Exaggerated ideas of great mineral wealth in "Talamanca" have been long held in Costa Rica and the Commandant of Moen, a little settlement ou the Atlantic coast, used principally as a penal station, conspired with Lapiz against Santiago. This individual, named Marchena, advised Lapiz to assassinate his chief, and thereby place himself at the head of the tribe.

It scems that Marchena's plan was to puta creature of his own over the Indians, so as to gain access to the supposed rich mines and thereby benelit limself. Instigated by a "Christian," the savage, nothing loth, conspired with his people, but Santiagro learned of it and made efforts to arrest him. Learning of this, he fled to the monntain fastnesses of Bri-bri where, broken down by disease and hardships he died, leaving, Indian like, his revenge as a legacy to his adherents. Santiago, who was a drumkand and, when intoxicated, a tyrant, gradually eustranged his people from him, and his relatives, Birche and Willic, placed themselves at the head of the opposition. The occasion sought for was not long in being founcl, and one morning Santiago was shot in the woods by an ambushed party, who at once took possession of the government, burnt their victim's house, appropriated his eflects, including his three wives, and defied his friends. Birche, as the oldest of the two consins and claimants to the chieftainship, took precedence and Willie became second chief. Mr. John H. Lyon, an American from Baltimore, who had lived in the country since 1858 , had acted as secretary to Santiago, and only their respect for an upright man who had always treated them justly, coupled with the fact that he was not a "Spaniard," prevented them from venting their resentment on him, in common with the other friends of the murdered man. He remained at his house for some weeks despite the storm. But at last, thinking discretion the better part of valor, he left the country with his Indian family and remained absent sume mouths. On his retirn he found matters settled after a fashion: the Birche party in power, but by no means secure against an outbreak from the friends of Santiago, who only wanted a leader. They urged Lyon to head them but his better council prevailed, and they perforce accepted the situation. I visited the country first in March, 1873. accompanied by the Commandante of Limon, Don Federico Fermandez. He then formally approved of Birche as chief, Willie as second, and re-appointed Lyon as Secretary. This was a great step in advance for Birche who now, for the first time, felt himself secure. The assassination of Santiago was practically ignored, but they were told "to be good and not do it again." This was succeeded by an infinite number of petty quarrels between the two chiefs; each disliking the other, and each wishing the other out of the way. By dint of constant interference on the part of the fureigners, they were prevented from coming into actual collision, although one attempt was made by the friends of Willie to kill Birche, Lyon, myself and my assistants at a blow by planting an ambush for us on one of our journeys. However, in December, 1873, business taking me to San José, I induced Birche to accompany me. On my advice, Don Vicente Merrera, the Minister of Interior, gave to Birche a formal commission as "Jefe Politico" of Talamanca, confirmed Willie as second chief, and appointed Mr. Lyon "Secretary and Director of the tribes," fixing suitable salaries for each. This was the first time that the tribe had formally submitted to the Costa Rican government. The action of Santiago was purely an in-
dividual affair, and looked on with great disfavor by the tribe. Matters went on very well for a few months under the new regime. But Birche, a man of little capacity, at the same time a coward and a tyrant, could not be content with his position. He began a system of ill treatment against which the people grumbled, but which they feared to resent. At first both Lyon and myself tried to quet the complaints, believing that puuishment had been justly inflicted, and knowing that

> "Nu man e'er felt the halter draw With just opinion of the law, Or held with judgment orthodox His love of justice in the stocks."

But it soon became appareut that his majesty (they are always called king) was abusing his power. The Indians dared not quarrel with Birche, for fear of offending the government, but came to Lyon almost daily with complaints. At last we decided to effect a change. Birche went to Limon to draw his salary, and at the same time to complain of a purely personal quarrel with Willie, in-which he had fared worst. I arrived there a few days later, having completed my exploration, and being ou my way to the Capital. On being asked for information and advice by the Commandante, I told the story and urged his removal. This could only be done by the minister, but he was suspended until the decision of that ofticer could be obtained. In a few days I saw Mr. Herrer.c, and after a conversation he decided to endorse the Commandante's action. Birche was accordingly removed, Willie was given a nominal chieftainship, and Lyon instructed to assume all responsibilities. Thus in less than two years the people have, withont knowing how it happened, been deprived of their hereditary chiefs, and a foreigner placed over them. Willie remains with the empty title of chief without even the power to issue an order or punish an offender, except when ordered by Lyon. This gentleman has their entire confidence and respect, and many of the Indians begged to have even the title taktu away permanently from the "royal" family. I have been thus prolix on this branch of the subject, because I was an eye witness, a participator, in the latter part of the events I relate. Trivial as they are, they may interest some, throwing light on the manner in which one tribe after another is subdue 1.

A strange fatality seems to haug over these Isthmian Indians. Even when not brought into contact with the debasing influences of civilization, the tribes are visibly diminishing. Less than two centuries ago, the population of Talamanca, as Costa Rica calls her southeastorn province, was counted by thousands, now barely 1200 souls can be found. The Shelaba tribe is extinct ; the Chauginas are at the point of extermination, the Tiribis number but one hundred and three souls, and Lyon tells me that the Cabecars of the Coen have diminished fully one-half within the last seventeen years, while the decrease in the Bri-bris is hardly less rapid.
During my travels in Talamanca I collected in each district an accurate
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enmmeration of the popmation. My process was to get together several of the most intelligent and well-informed men in the district ; cillse them to compare notes and then to tie a series of knots in strings as they ane acenstumed to do ; different kinds ol knots distinguishing the sexes. Eath house was counter separately, so that I obtained an exact census of the whole conntry with the fullowing results. This cord census is now in the musenan of the smithsonian Institution, with many other articles, illustrating the life and customs of the people.
The population of each district is as follows :

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\begin{aligned}
& \text { Tiribi. .................................................... . . . . 10:3 } \\
& \text { V̌ren. ....................................................... . . . } 604 \\
& \text { Bri-lri...................................................... . . 1in } \\
& \text { Cabecar............................. . .................. } 128 \\
& \text { The Valley............................................ . } 21 \text {.) }
\end{aligned}
$$

This covers all of the water-sheds of the Tilorio and Tiliri rivers except two small bands; the Changinas on the Changina branch of the Tilorio and a refugee remmant of the Cabecars on the extreme head of the Tiliri. Probably an additional hundred would cover all of these.

On the Nortin or Estrella river, and on the Chiripo, there are a few more Cabecar's who have little communication with the healluarters of the tribe, but who are in the habit of going out to Limon or Matina for what little trade they reguire. These are probably in all, not more than 200 or 300 in mmber. Nearly all speak Spanish and they are gradually approximating to civilized or semi-civilized ways.

The canse of the rapid decrease in the population is their extreme indolence. With a country fitted to produce all the fruits of the tropics ; where maize grows luxuriautly, and where cattle and pigs inerease without care or labor ; they are content to make plantains their staple, aud almost their only food. Chicha the form in which most of their maize is used, is a beverage very slightly intoxicating, if drank in large cuantities, but the amount of nutriment derived from it is unimportant. Meat, whether of domestic or wild animals, is a rarity and a luxmry, and the bauana or plantain make up all deficiencies. The natural consequence of a bulky and comparatively imutritious diet is a low physical state. The system has little resisting power against disease, or healing porer over wounds. A slight attack of coast fever, which, with an ordinary strong man of onr own race, would be comparatively harmless, is very apt to terminate fatally with these people. Indolent ulcers are so common that perkaps a full fourth of not only adults, but even children have them, usually on the legs, originating in some slight seratch or bruise; and very few of the elderly persons are without their scars. These ulcers often last for years, and I have seen them as broad as the two hands opened side by side. Although the local diseases are few, the entire absence of medical treatment, the ignorance of the first principles
of hygiene, and the universal negligence of the sick, on the part of the well, all contribute to shorten the average life-term of the people, so that very few old men or women are to be found, and the mortality is so great among the young that the deaths more than comuterbalance the births. Unless some great change takes place, the whole of the tribes of Talamanca will have disappeared within two or three generations more. The Tiribis, who like the others have strict rules about marriage, within certain degrees of consanguinity, are now so reduced that several young men and women are to-day forced to remain uumarried for, want of proper mates sufficiently removed in relationship. But at the beginning of this century they were powerful enough to give battle to the Bri-bris. The Changinas and Shelabas have disappeared and the fate of the other tribes requires no prophet to foretell.

Physically, the people of all the tribes bear a strong resemblance to each other. They are of short stature, broad shouldered, heavily built, full in the chest, with well-formed limbs, and well muscled throughout. Their color is similar to that of the North American Indians, or, if anything different, perhaps a little lighter. There seems to be but little, if any admixture of foreign blood among them. Their history would hardly lead us to expect it. They have lived very exclusively, and it has hardly been half a century since they have ceased to live in a state of open war with all intruders from the coast side. The Spanish occupation closed so disastrously over a century and a half ago, was of too short duration, and and the whites were too few, to make a permanent impression on a then populous country.

The following measurements taken from my servant, a full growu man, who is not more thau an inch, if so much, under the average height, will give a fair idea of their build. He measures in height, 5 ft. $1 \frac{1}{2} \mathrm{in}$., circumference of chest, under the arms $35 \frac{3}{3}$ inches; of hips 34 inches, of waist $33 \frac{1}{4}$ inches, length from axilla to tips of the fingers, $24 \frac{1}{2}$ inches; le ${ }^{2}$, from the groin to the ground, 29 inches. Both sexes are marked by an almost perfect absence of hair from all parts of the person except the head; where there is a deuse growth of coarse, straight black hair. This the women plait with considerable taste. The men wear theirs cut moderately long and of an even length all round; or a few retaining an older fashion, have it a little over a foot long, apparently its entire natural length, and either let it stream loosely over the shoulders, gather it into two plaits, or twist it into a roll, bound with a strip of mastate, and coiled at the back of the head in a round flat mass.

The breasts of the women are not conical, as occurs with many, if not most of the Indian races; but are fully as globular as those of the European or African. Nor are they directed laterally. They are not generally large, though some marked exceptions occur to this rule. But they have one strongly marked peculiarity. The entire areolar area is developed into a globular protuberance, completely enveloping and hiding the nipple. The development of this part begins with, almost
before, that of the mammary gland proper, on the approach of puberty, and is more obvions then, than after the gland has acyuired its full rotmality. Aftermariage, the areola gradaally sinks, leaving the nipple standing out prominently in its centre.

In treating of the manners and enstoms of these peopte, I shall include the three tribes of Tiribi, Bri-bri, and Cabecar as one, and shall only mention them separately where points of difference ocenr. First in the order comes the birth of the gomg savage.

All the world, or rather all the ignorant world, and even a part of that which considers itself reasonably enlightened, ontertains a belief in the influence on the child, of certain impressions made on the mother during preguancy. Doubtless the general mental state of the mother has an influence on her progeny. But the belief exists among these Indians, in its full force, that the sight of certain objects by the mother will influence her child physically. They go further. The mother is given to wearing certain charms to that end. The eyes of the fish hawk give the future fisher the power to see his prey beneath the water; the teeth of the tiger (also wom by both sexes for purely ornamental purposes), when used as an anulet makes the future hunter swift and strong in the chase; the hairs of a horse make him strong to carry loads, and a piece of cotton pushed inside of her girdle by a white man, is certain to make the child of a lighter complexion.

When the time of parturition approaches, the father goes into the woods and builds a little shed, at a safe distance from the house. To this the woman retires as soon as she feels the labor pains coming on. Here, alone and unassisted, she brings forth her young. Difficult delivery is as rare as among the lower animals. As soon as the delivery is effucterl, the mother of the woman, if present, and in her absence, some other old woman approaches the mother and, with great circumspection to avoid the defilement of bu-ku-r'u', of which I shall speak further on, places within her reach a piece of wild cane, so split as tu make a rude knife. The mother ties the umbilical cord and severs it with this knife. No other kind is permitted. She is also supplied in the same mamer with some tepid water in a folded plantain leaf, in which she washes the child. She then collects the after-linth, dic., and buries it, after which she goes to the nearest water and bathes herself. An arou, or medicine man then appears on the scene. He causes the mother to theoretically wash herself again, by dipping her fingers into a ealabash of water, which he forthwith drinks. He then lights a pipe of tobacco, blowing the smoke over her. He then purifios bimself by washing his hands, after which, and not before, all are permitted to return to the house. The recovery of the mother is so prompt that it may be more properly said, she has nothing to recover from. I have seen a young mother, with her first child not yet a weck old, attending to her ordinary duties as if nothing had liappened.

The matter of names is very loose and arbitrary. It is almost impossi-
ble for a stranger to learn the true name of an Indian, directly from the person himself, although his friends may divulge it, and this is looked upon almost in the light of either a breach of confidence, or a practical joke. After long acquaintance, they may be prevailed apon, but even then are more apt to give a false name than to tell the truth, so great is their reluctance. One fellow, who was my servant for over three mouths, after always denying having a name, at last told me a pet name, or "nick-name" that he had had as a child. It is customary for children to have provisional names, or to be called only "boy" or "girl" as the case may be, until the whim of an acquaintance or some equally arbitrary circumstance fixes a title to them. Besides the native name, generally derived from some personal quaiity, or not seldom the name of some animal or plant, almost all of the Indians possess a foreign name, by which they are known, and which they do not hesitate to communicate. Among themselves, when the name is unknown, a person is called by the name of the place where he lives. Mr. Lyon says all the women have names, as well as the men. But my experience with them is never to have heard them called by other titles than "girl," "woman," " wishy" (applied familiarly to young married women), or "so-and-so's wife" or daughter, except in the case of a few of the more civilized men, who have given Christian names to their families.

Children are not generally weaned early. In case of the birth of a second child, the first is weaned perforce. But it is nothing strange to see a child well able to walk, say even two years old, go to the breast as a matter of course, although sufficiently accustomed to more solid food.

Small babies are carried on the back, astride the hips of the woman, and supported by a broad strip of bark or cotton cloth, passed around both, and secured in front by a dexterous tucking in of the ends. When they become larger, they are carried on one hip, supported by the arm; or are placed on top of the load, if the mother is traveling. They sit perched on the bundle, with a foot dangling either over or behind each shoulder of the mother, and soon learn to hold on like monkeys.

The training of the youth is left almost entirely to themselves. Among the Tiribi they are taught to respect and obey their parents, but in the other tribes they are more insolent and disrespectful to their parents than to other persons. I have seen a boy of ten years old absolutely refuse to obey some trifling command of his mother, and she seemed to have no power to enforce her order. The little girls learn early to accompany the older girls and women when they go out to bring water. Their usual station, in the house, is at the side of the fire, where, as soon as they are large enough, they assist in fanning the fire, preparing plantains for the pot or watching the cooking. The boys will sometimes deigu to hunt fire-wood, but they are more apt to be playing by the side of the river with mimic bow and arrow, learning to shoot fish under water. Their toys are mostly diminutive copies of the tools and weapons of more advanced age. The machete of the man is represented by a good sized
kuife, often the only article worn by the boy; the long lomting and fishing bow is foreshatowed by one a yard long, perhaps made of a simple piece of wild cane; the blow grm, a tube longer than the person, is in comstant use ; and I have seen some few actual toys such as a top made of a large round seed with a stick through it; and a rattle differing only in the deyree of eare in the making, from those used by the priests in their ineantations.
The arrival of puberty is the signal for marriage, at least on the part of the girls. The courtships, if such they can be called, are carried on principally at the chicha drinkings, and I am assured that very few young women retain their virginity mutil marriage. A plurality of wives is allowed at the option of the husband. Many have two, and some three women. When a young man wishes to marry, having arranged with the girl, he applies to the father. The consent is practically a foregone conclusion ; but the details of the bargain must be arranged. In most cases, the groom goes to live at the house of his father-in-law, becomes, at least for a time, a member of the family, and eontributes with his labor to the common surport. Girls are thus available property to their familios. But in case the man already has a wife ; is in short, settled in life, and has his own home, he may not want to change his residence. He then compounds with the family; giving a cow, a couple of pigs, or other erguivalent for the woman, in place of his services. No form of ceremony is required, and the marriage lasts as long as it suits the convenience of the parties. In case of infidelity on the part of the woman, or und ne cruelty on the man's part, they may separate. Sometimes, if the woman is unfaithful, the man whips her severely, and perhaps returns her to her family, or slie, in a fit of resentment, leaves him. This may be for a year or so, or may be final ; but during such separation either party is at liberty to make new connections, thereby remaining permanently apart.
Probably there is no better place to mention kissing than in connection with courtships and marriages. This agreeable custom seems to be cntirely unknown. I have never seen one person among them kiss another, not even a mother her child.
There are certain limits within which parties may not marry. The tribes are divided into families, or something analogons to clans. Two persons of the same clan cannot marry. This is now a source of difficulty among the Tiribis. The tribe is so reduced that a number of marriageable persons of both sexes are unable to find eligible mates. I could not ascertain exactly how the question is settled as to which clan a person belongs, whether he iuherits from father or mother, but so far as I could gather, I think from the father. Cousins, even to a remote degree, are called brother and sister, and are most strictly prohibited from intermarriage. The law, or custom, is not an introduced one, but one handed down from remote times. The penalty for its violation was originally very severe; nothing less than the burial alive of both parties. This
peualty was not only enforced against improper marriage, but even against illicit intercourse on the part of persons within the forbidden limits. Mr. Lyon related to me a case that occurred since he has been living in the country, where the power of the Chief Chirimo was insufficient to protect a man who married his second or third cousin. Fortunately for the delinquents, they succeeded in making their escape, though with difficulty, being followed two or three days' journey by the avengers.
Infidelity is not rare, and the husband has the redress of whipping the woman and dismissing her if he desires, and of whipping her paramour if he is able. But so cantious are the people about the blood limit of intermarriage, that a woman on giving birth to an illegitimate child, for fear that it will not know the family to which it belongs, will usually brave the punishment, and at once confess its paternity.

As cousins are called brother and sister, so are not only the brothers and sisters, but even the consins of a wife or husband all called indiscriminately brother and sister-in-law ; so that a person may ou a single marriage find that he has annexed fifty or a hundred of these interesting relations.

On the death of the head of the family, the next oldest brother, or in default of a brother, a consin or uncle assumes his place, and is then called father by the children. This does not involve any especial material duties, such as the support of the family; but is rather a sort of honorary title; giving him, however, the ruling voice in any family council or discussion.

On the death of an individual; if a young person, a woman, or a person of but little consequence, the body is prepared as soon as possible in the manner described below, and carried to the forest; but if a person of more consideration, there are some preliminary ceremonies. These I had the opportunity of witnessing in the case of an old man who died on the Uren when I was present. He belonged to one of the distinguished families, an ancestor, perhaps his father, having been one of the leaders in the war with Tiribi, and he the heir to, and possessor of, one of the few gold "eagles," or insignia of rank. He died in the night, and next morning, the body being in his hammock, covered with a piece of bark cloth; all of the chicha, chocolate, and food that the poor people of the house could get together on short notice were prepared. A fire was lighted, amidst singing, by twirling a pointed stick in a sreket on the face of another. This was the sacred fire, which was communicated to a small heap of wood placed on one side in the house. This could be used for no common purpose whatever. No ordinary fire could be lighted from it; not even could one use a stick of it to light his pipe. It must burn contimously for nine days. In case of its accidentally going out before that time, it must be relighted in the same manner as at first; and - at the end of that time, only a priest could extinguish it, and he only with a calabash of chocolate, and during, or at the end rather, of the suitable incantation.

The enstom of harying or otherwise plating with the deald all of his valuables, evidently existed at one time with these people. The Tiribis, who bury their dead, did su, up to within the memory of persons still living, and all maters that could not be buried, like live stoek, fruit trees, .te., were ruthlessly destroyed. A more practical method has grown up with the present generation, and they now divile the property of the defunct among the heirs, with as much avidity as in more enlightened commonities. Sodo the Bri-bris and Cabecars, but these compound with their conseiences. Whether the Teribis have a similar oustom, I am not prepared to sals, not laviag seen a funeral, and having no information that I cousider sulliciently trustworthy.
The next step after lighting the fire, was fur the master of eeremonies, appointed by mutual comsent, to cause to be collected some small scrapings of a peenliar wood, called Palo Cacique by the Spaniards. It is a wood used only for walking sticks, and will be again referred to in that comnection. He also obtained a large lump of cotton wool, some seeds of a species of pumplin, and in small root of sweet yucea. All the male friends of the deceased present, seated themselves on luw benches in a duuble line, facing each other, with another bench between. A part of the cotton, spread out so as to make a bulk about the size of a man's hand, was placed in front of the principal person, who then began in a sing-soug tone between a recitation and a chant, to relate the merits and deeds of their departed brother. As he proceeded, and mentioned for instance that he had planted much corn, he laid carefully on the cotton a piece of shaving which he said was the "planting stick" nsed in that operation. Another laid aside of it a piece of pumpkin seed, which represented the corn. Another taking up the song, related how he had shot fish, and another shaving was the arrow. An impromptu string a couple of inches long, twisted out of the cotton, and stained red with the powder from some annatto seeds, was a rope with which he had led a cow, bought yedrs before in Terraba. This lasted for an hour, until every tool or weapon he had ever used was represented by a little pile of seeds and shavings on the cotton. But he was a great man and his "eagle" was not to be forgotten. A very rude imitation of it was cut ont of the skin of the yucea root and placed on top of all his other property, and then the edges of the cotton were doubled over making all into a ball. This w is placell on his breast, next his body, and he was thus armed and equipped with all he had used or owned in this work, ready for use in the other ; and his heirs none the poorer.

The body was then enveloped in the pieee of "mastate" or bark cloth that he had used as a blauket, to sether with the ham nock in which he swong. A quantity of "platanillo" leaves, a leaf not unlike that of the plantain, but ouly half the size and much tougher, were placed on the ground, two or three deep. The buudle was laid on this, the edges of the leaf envelope, doubled over, aud dexterously tied by strips of bark string and the whole turned out a very respectable Egyptian mummy done in
green. By means of three strings, this was swung under a pole, ten feet long, raised on the shoulders of two men, who trotted off unconcernedly to the woods a mile or so distant. They were accompanied by two or three more, armed with machetes.

A little boy whom I had for a servant for a few months, died on one of my journeys. We watched by him and did all in our power to save him, and were assisted by two of our men, one of whom was an "awo" or doctor. As soon as we saw that he was dying, and I had given up the last hope, the awa took charge. He motioned us all off. From that moment the moribund becomes unclean and only the awa can touch him. As soon as we pronounced him dead, the doctor covered him np. Next morning, the death taking place about midnight, without ceremony he was bundled up in his blanket and the usual leaves, and carried off in the same manner to the bush. But he was of no consequence. Only a boy who was nobody and had done nothing. I mention this case to show the difference in treatment, according to the person.

Next to a woman in her first pregnancy, the most $b u-k u-r^{r} u^{\prime}$ (unclean) thing is a corpse. An animal that passes near one after it is placed in its temporary resting-place, is defiled forever, and must be killed, as unfit for food. Accordingly, an unfrequented spot is selected, where tame pigs or cattle never go. Here a low bench is made of straight sticks, about the size of a coffin, raised a foot or two from the ground ; it is carefully fenced in ; the corpse is laid on it, and the whole is then covered with another horizontal layer, making a sort of box, carefully bound together with vines. Over all, a pile of branches and brush-wood is thrown so that buzzards and other carrion-eating animals cannot obtain access to the body. The body remains here about a year, to allow complete decomposition.
In the meantime, the family, or next of kin, on whom devolves the responsibility, proceeds to secure a sufficient number of animals, pigs, or beeves, according to the importance of the defunct. He also plants a corn-field, to supply the material for the chicha. About a year, more or less, after the death, one or more priests are engaged. Generally one is sought and he selects his assistants. For an ordinary person, one is sufficient; while for a chief, or person of distinction half-a-dozen are hardly enough. The chief fixes the time when he will be ready. Another official, a steward, called Bi-ka'- Tra is also engaged. This latter personage takes entire charge as commissary and master of ceremonies. Under his direction, the corn is ground for the chicha. The number of bunches of plantains that he orders, is obtained; the animals are killed and cooked as he directs ; and the food and drink are served to whom, and in what quantities he designates. The host resigns all to him and becomes thenceforth merely a guest, until all is over.

When the day approaches, a party goes to the place where the body was deposited. One person, set apart for similar unclean work, opens the package, cleans and re-arranges the bones and does them all up in a
bundle about two feet long ; enveloped in a piece of eloth of native make, prepared ly being jainted in an allegorical manner.

These cloths, about four feet long by two wide, are painted with a sed vegetable juice, in figures two to four inches long. The devices vary according to the cimse of the death of the individual; whether it he from fever or other disease, ohl age, suake bite, wounds, de. One of these cloths, in the Smithsonian mmsenm, is painted for a person who is supposed to have died from suake bite.

The bones, having been tied up in the new bundle, are carrierl, again under a pole, to the house where the feast is to be held, and are there placed on a little rack overhead, out of the way of persons passing underneath.

Everything being ready, the first installment of food cooked, the chicha brewed, and chocolate boiled, the feast begins.

I had the rare good fortune, not only to witness the ceremony at the death of the persons mentioned above, but also to be 1 resent at the death feast of the chief Santiago. That is to say, I saw all that happened on the first and the last days; the intervening thirteen or fourteen being all alike; a succession of eating, drinking, dancing; a disgnsting scene of carousal and debauch that did not possess even the merit of variety.

The feast was held in a large house, adjoining the residence of the chief Birche. The house is about seventy-five feet long and forty wide; the ends being romnd, and the only light entering by the large doorway left open at one end. A little rack, made of wild cane was tied up to the sloping side of the house, about eight feet from the floor, and on this was lad the bundle containing the disjointed skeleton of the murdered chief. At a given signal, the principal singer or priest took his position on a low stool, flanked by the other priests and some volunteers. All were regaled with chocolate served in little grourds. The priest began a low chant and two men started twirling the stick to light the fire. As fast as one tired, another took his place until the sparks glowed in the pit bored in the lower stick. A yell from the priest annonnced this, and a piece of cotton wool was ignited from the burning dust ; with this the fire-wood, previously prepared, was lighted and the fire placed under the remains. Here it was kept up until the end of the feast. After the lighting of the fire, singing and dancing began in earnest, intermpted occasionally by eating and drinking.

The dances are very similar ; the principal differences visible to an observer are in the disposition of the dancers, whether in a circle or in one or two straight lines. In the latter case, the two lines are parallel, and the dancers face each other. The daneing is kept up to the "mmsic" of small drums, carved ont of a solid piece of wood, with a single head, made of the belly skin of the iguana; the other end is open. The drum is held under the left arm, and is beaten with the tips of the fingers of the right hand. The drummers, ranged in a line, sing a monotonous song, with a chorus; the time being beaten on the drums. Sometimes a
dried armadillo skin is scraped with a large bean-like seed ; in the same manner as I have seen the negroes of the West Indies scrape a roughened calabash with a bone. The dancers clasp each other over the shoulder, around the waist, or hook arms; both sexes taking part in the dancing, but not in the singing or drumming, these boing the especial province of the men. The steps are usually about three forward and to one side, and then the same number backward. When arranged in a circle, this carries them gradually around the musicians. When in a straight line, they keep on the same spot. The songs are a sort of recitative, sometimes impromptu, sometimes of fixed words ; the chorus a sort of "fol-de-rol," a series of meauingless syllables. These songs for dancing must not, however, be confounded with the sacred songs of the priests, of which I shall have occasion to make fuller mention in the proper place.

The dances are kept up nearly all, and sometimes all night at the funeral feast; the participants retiring from time to time and sleeping an hour or two when exhausted, and returning with renewed vigor to chicha drinking, eating, and dancing. It is particularly on these occasions, when the older people are too drunk, or too busy to keep strict watch, that the younger folks manage to evade their vigilance and -. These eminently practical courtships almost invariably precede the asking of the father's consent by the would-be bridegroom.
After more than two weeks of this license and debauchery, during which three cows, about a dozen pigs, hundreds of bunches of plantains, several quintals of rice, and hundreds of gallons of chicha had been devoured, the bi-ka-krch or steward announced that the commissary had given out and the riot must come to an cnd. I was notified according to previous agreement and went at the time appointed. As distinguished guests, our party of four were shown to the best hammocks, where we were seated, and in a few minutes served with cups of chocolate. In a little while, all of the priests seated themselves on low benches, the leader in the middle. The lay chorus singers were ranged in a double line facing each other and below the priests. The fire was carefully carried from its place under the corpse and piled almost between the feet of the principal priest. All drauk chocolate and the priests sounded their rattles. The leader began a low dirge-like song in the sacred jargon, which I was told described in detail the journey of the defunct to the otber world. It told of the dangerous rivers he had to cross, where alligators lay in wait to devour him ; of the great serpents who disputed his path; of the high hills he had to climb with weary steps; of the fearful precipices he must scale; of the beautiful birds with sweet songs, compared with which even the flute-like silguero was as a crow; of the gorgeous butterflies that lightened up the path like flying flowers, and finally of his safe arrival at the country of the great $\mathrm{Si}-\mathrm{b} u$, where he would have nothing to do but eat, drink, sleep, and enjoy himself.

The song was divided into stanzas, and the priests all followed the lead of their chief, the words being a series of set phrases, but in a language
in part mintelligible to the uninitiated. At the end of each stanza was a chorns, where the priests, who during the stanza kept time with their rattles, now gave a peculiar twirl, and tho lay singers joined in the chorus.

As the song approached its end, the leader was furnished with a ligg gourd of steaming chocolate, holding about a quart. As he finished, landing the dear departed safe beyond further tronbles, he amounced it with a most unearthly yell, in which all hands joined; he at the same time turning the chocolate over the tire, totally extinguishing it. The party at ouce arose and for a minute or two all was bustle and confusion of preparation.
A person, whese office it is to handle the dead, endeavored to lower the bundle but it was a little out of his reach. Nobody else could tonch it for fear of defiling himself. To lend a hand would have cost an Indian three days of purification. I drew my long knife, which all learn to carry in this country, as an actual necessity; and with a conple of blows cut the fastenings and brought the little cane rack, bundle of bones and all, tumbling iuto the outstretehed arms of the official, with much more hasto than solemnity. Nobody seemed shocked, and being a foreigner, and withal a medicine man, who had made cures where their best doctors had failed, I was of course impregnable to bu-ku-r 'u'. The aforesaid official now lashed the package to its stick, and two long slender strings of loosely twisted cotton were tied to the head of the package.

Santiago had had three wives. One of them had re-married to his snccessor; but there were tro remaining in widowhood. A procession was formed. First came the priests with their rattles. Next the chorus singers with their drums. Next the enrpse, borne by two men, and preceded by the two widows, each holding the end of one of the cotton strings, leading the dead, as it were, to his final resting-place. Next ourselves, as the most distinguished persons present, and escorted by the two chiefs. Behind us came the older men, and following them the usual rag, tag, and bob-tail of young men, women, boys, and persons of no account generally. Some of the boys however, true to boy nature, were as usual irrepressible, and instead of keeping decorously in place, skirmished ahead, and on the flanks of the procession, mounting stumps, logs, or other commanding points to take in the general effect of the pageant. As the procession filed out of the house, some old chicha jars were earried out and ostentatiously broken; but I observed that nothing of real value was destroyed. As soon as the line got fairly under way, the priests struck up another song which was kept up until the procession halted.
Everybody had been on so long a debanch that it was deeided to take a rest of three or four days before the party started off. But it was necessary that the bones should be removed from the house. A temporary ranch had therefore been built a few hundred yards distant; and to this the remains were carried and deposited until the bearers were in a fit condition to proceed.

The final disposal of the remains is a matter of great care. The whole of the tribe goes to the district of Bri-bri for this purpose. The receptacle is a square pit, about four feet deep and ten feet square. This is paved on the bottom with stones, and is roofed over from the weather, by a series of heavy hewn slabs of a very durable wood, open on the front and ends, and sloping to the ground at the back. Each family possesses one of these pits and here, after the funeral feast, the bundle of bones is carried and deposited. After the rest, the remains of Santiago were carried to the "royal" pit and deposited without further ceremony.
The Cabecars, according to Mr. Lyon, have about the same ceremony, but their pits are mere holes, not paved, and covered by planks laid on the ground level.

The Tiribis have a death feast, but it differs in some respects from the others. The body is buried immediately after death, but no longer with the property of the deceased, and, of course, the defunct is not present at his final feast, as with the Bri-bris.

Mr. Lyon, to whom I owe much of the infonmation in the present memoir, has described to me one circumstance, in connec ion with these death feasts, that I have not witnessed. The warriors among the Bribris, who fought in the war with the Tiribis were honored with a little different ceremunial. They are now all gone, and the ceremony is extinct. At the death feast, a person entered, clad in a long gown, wig, and mask. The gown and wig were made of mastate, or bark cloth, covered with " old man's beard" moss, sewed all over it, making a shaggy and nearly shapeless mass. The mask was made of half a "tree calabash," properly fixed up with a wax nose, \&c. A copy of this entire dress was made for me by an old Indian, and is now in the Smithsonian museum. The person thus accoutred, took part in the dance, made free with the women and scared the children without let or hindrance. Mothers with young children took them to him and placed them for a moment on his shoulder, "to prevent the evil spirit from doing them harm." Neither Lyon nor the Indians could give me a very clear account of what spirit, whether good or evil, this represented. But the people seemed to regard him as rather of the malevolent sort; to be classed under the general head of " $B i$ " or Devil. Doubtless this, at one time had a distinct meaning, now lost.
No strictly religious belief can be said to exist among these Indians, in the sense that it is usually understood among us. They have, however, a series of ideas or beliefs which affect their daily lives and are never lost sight of. In connection with the funeral feast, described above, I have referred to their idea of a future state.
During the year that the body lies in the woods, the disembodied spirit prowls around, living on wild fruits, of which the wild cacao is the only one of which I know the name, although others were also pointed out to me. At the end of that time, when the funeral fire is kindled, the spirit is thus attracted to the feast, whence it departs on its final journey.

When I asked an Indian where it went, he responded, to the cometry of si-bu', and in: reply to the question; where is that:' he pointed unhesitatingly to the zenith. Oa impuiring where the road was, he told me it was invisible to the eyes of the living, but that the spirit (wig'bru) conl i' see it.

In the other world there are no troubles, no carcs. There is plenty to eat and to drink, of those things that the Indian loves most here. Plantains and corn are never wanting ; meat and chicha are always to he had; and chocolate, the luxury, por excellence of the Custa Rican Indian never runs ont, or becomes searce as, alas too often, it does in Talamanca. He needs all his arms and implements, but it does not seem that he will be obliged to work. These little discrepancies, the wisest T'su-gur does not attempt to explain. After death, the soul remains wandering ahont near the corpse antil the burial feast. Then, by means of the songs of the T'su-gur's or priests, it makes its jouney to the "promised laud."

Their superstitions are however, somewhat more definite and tangible since they affeet their every day actions. There are two clasies of uncleauness, nycu aud bu-kiu-ru'. Auything that is essentially filthy, or that was connected with the death of it person is " nyu," anything uuclean in the IIebratic or Hiudu sense is bu-kutr'u'. But bu-ku-r'u' is even more powerful than it is supposed to be by the Orientals. It suthices not ouly to make one sick, but even kills. In a party where bu-k $u-\mathrm{r}^{\prime} u^{\prime}$ is exeited, it does not affect all alike, but only attacks the weakest. Bu-kiu-rru' emanates in a variety of ways; arms, utensils, even houses become affected by it after long disuse aud before they can be used again must be purified. In the case of portable objects left uudisturbed for a long time, the custom is to beat them with a stick before touching them. I hive seeu a woman take a long walking stick and beat a basket hanging from the roof of a house by a cord. On asking what that was for, I was told that the basket coutained her treasures, that she would probably waut to take something out the next day and that slie was driving off the $b u-l i u-r^{\prime} u^{\prime}$. A honse long unsed must be swept and then the persou who is purifying it must take a stick and beat not only the movable objects, but the beds, posts, and in short, every accessible part of the interior. The next day it is fit for occupation. A place not visited for a long time or reached for the first time, is $b u-k^{\prime} u-r^{\prime} u^{\prime}$. On our return from the ascent of Pico Blanco, nearly all the party suffered from little calenturas, the result of extraordinary exposure to wet and cold aud of want of food. The Indians said that the peak was especially $b u-k u-r^{\prime} \cdot u^{\prime}$, since nobody had ever been on it before. Even we foreigners were sick from it, and had any of them gone to the summit, they would have surely died. On one occasion, while buying some implements, I pulled down of a raek, two or three "blow guns" that, from the dust on them, must have lain there undisturbed for weeks, perhaps months. As I reached out my hand, I heared the warning cry of "bu-ku-r'u'" from all around ; laughingly disregarding it, and telling them that bu-ku-vi'u' conldn't hurt us, I began examining them.

Some of the people looked very serious and shaking their heads, said I would see before long, that somebody would pay for it. Two or three weeks after, a fine little Indian boy whom I had with me as a servant, poisoned himself by eating excessively of a kind of wild almoud called variously the" bri-bri," or "eboe" nut. There was not an Indian in that party but who firmly believed that it was the bu-ku-p $u^{\prime}$ of the blow-guns that killed him. From all the foregoing, it would seem that $b u-k u r u u^{\prime}$ is a sort of evil spirit that takes possession of the objects, and reseuts being disturbed; but I have never been able to learn from the Indians that they consider it so. They seem to think of it as a property the object acquires. But the worst bu-ku-ru of all, is that of a young woman in her first pregnancy. She infects the whole neighborhood. Persons going from the house where she lives, carry the infection with them to a distance, and all the deaths or other serious misfortunes in the vicinity are laid to her charge. In the old times, when the savage laws and customs were in full force, it was not an uncommou thing for the husband of such a woman to be obliged to pay damages for casualties thus caused by his unfortunate wife. Nya (literally filth) is a much less serious affair. As soon as the woman is delivered of her child, she ceases to be $b u-$-ku-r ${ }^{\prime} u^{\prime}$, but becomes nya and has to be purified in the manner already described. All the objects that have been in contact with a person just dead, are nya and must be either thrown away, destroyed, or purified by a 'doctor.' He can handle them, but must purify himself afterwards. The persons who assist in preparing the corpse, who carry it to the temporary resting-place, or who even accidentally touch it or the unclean things, are all nya and must be purified.
Purification from this latter uncleanness is a simple matter. The person washes his hands in a calabash of warm water, the "doctor" blows a few whiffs of tobacco-smoke over him, and the thing is done. But the former is much more serious. For three days the patient eats no salt in his food, drinks no chocolate, uses no tobacco, and if a married man, sleeps apart from his wife. At the expiration of that time, the warm water and tobacco smoke are called into requisition and the cleansing is complete.

Of Gods, deities, spirits, or devils, there are as follows; the "great spirit" or principal superhuman being is called Si-bu' by the Bri-bris and by the Cabecars ; by the Tiribis he is called $Z i-b o^{\prime}$, by the Terrabas $Z u ̈ u-b o^{\prime}$ and by the Borucas, Sí'bŭh. A good spirit, from whom nothing is to be feared, he receives a sort of passive respect, but no adoration or worship. He is rather looked on as the chief of the good country, of the future state, but as not troubling himself much abont mundane matters. It will be seen, therefore, that in their theology, the entire family of tribes is essentially monotheistic, although they have taken the first insensible step towards a plurality of gods, in the manner so admirably indicated by Max Müller, in his "Chips from a German Workshop." They believe in but one God, and assert his unity with an emphasis worthy of Moslems
and yet their priests give him twenty names, in their songs. These names, so far as I could ascertain, all refer to his dualitics. One Bri-bri, whom 1 had with me as a servant for over half a year, and from whom I obtained much valuable information, particularly in regard to the language, said to me, "Why do you forcigners ask us how many Gorls there are? There is ouly one, and that is Si-bu'."
The Devil, or devils, are minor personages, who receive no worship of any kind. They are called, Bi, by the Bri-bris and Cabecars, $A u$ in Tiribi, huh in Terraba, and hicegro' in Bornca. Tle devil is generally malevolent, but does not seem to be specially feared. Bi amoug the Bribris is a term also used for a variety of lesser devils, or evil spirits who have special missions, like making people sick, de. Some of these inhabit the less frequented parts of the forests and mountains, and are very jaalous of their domains. People entering an unfrequented region, make as little noise as possible. If they make the local Bi augry with their noise, he will revenge himself by a shower or by cansing somebody to fall and hurt himself, or to be bitten by a snake, dec. A person who has once been in these places em return with less risk, but all new-comers must keep at least a comparative silence. Another class of beines inhabit the rocks on the summits of certain mountain peaks. They live inside the rocks, not among then, consequently their habitations are undistinguislable to mortal eyes. They seem to have the same habits as ordinary humans. One of these peaks, a mile or two across a cañon, in front of a place called Sar-we, is thus inhabited according to the accounts of the people of Sar-we. They told me of hearing singing, the beating of drums, de., coming from that direction. The configuration of the lills is such that a glance showed me, that a drum beaten at certain of the houses in the cañon of Uren, would echo back from this hill to Sar-we and thus account for the sounds. These people of the $L_{-j u m s,}$ as the naked peaks are called, are said to be the owners of the tapirs which roam throngh these solitudes. They are very jealous of their vomains and cause, by some occult means, the death of any one who dares approach their homes. I could not induce an Indian to accompany ins to the summit of Pico Blanco, partly on account of bu-liu-r'u', and perhaps more still for fear of the people of the $U$-jum or peak. In addition to these beliefs, they also believe in the efficacy of incantation by their Alous or doctors, of whom more immediately; and further in certain ceremonies or observances of their own, I have seen a woman carcfully eollect a bunch of some weed and taking it to the river wash her face, neck, breast, and arms with it. This was to bring good lack to the men who were at the time at work turning a stream to dry its bed, for the purpose of eatching fish. She had her reward; huudreds of fish of 2 to 4 pounds weight were captured, and of a quality as fine as shad.

There is a peculiar wood, of which I shall have occasion to speak further on, used only for walking sticks for the chiefs aud more eminent persons. The growing tree is unknown and it is only obtained by the
accidental discovery at rare intervals, of a half-rotten truok in the woods. It is prized principally for its color, which is between that of old mabog. any and rosewood, and which is probably in part due to seasoning, or to some change in the heart, consequent on the decomposition of the sirface. When an Indian finds one of these sticks, he marks the spot, but dares not take possession immediately. He must purify himself by a three days fast before he can begin work on it. It is believed that these sticks are under the protection of a poisonous snake, and if the person has not properly prepared himself, the guardian will revenge the outrage by biting him.
The privileged classes, apart from the chiefs, are three. Two of these are hereditary. The $U-s e^{\prime}$.ka-ra is a sort of ligh priest, and is of nearly as great importance in the eyes of the people as the chief. In fact, the time was, and not very long ago either, wheu the chiefs themselves made jourueys to visit him as suppliants. The present incumbent is a youth of perhaps twenty-five years of age, and is not yet full fledged. His predecessor, his father, died recently, and, until after the funeral feast, he cannot enter fully into the exercise of his functions. The family lives far back in the hills of Cabecar, and, although a member of that despised tribe, has from time immemorial held undisputed sway over both it and the Bri-bris.

The former $U$-se $e^{\prime}$-lia-ra was very arrogant, and would hold no communication with foreigners. He claimed supernatural powers, and held frequent interviews with spirits. On these occasions he went alone to a cave, several miles from his house, and spent days together there. On his return he would not converse even with his own family. Nobody but his familiar, now a very old man, was allowed to serve him, or even to speak to him for a certain number of days after his return from one of these mysterions jourueys. He rarely traveled about, or visited his neighbors. He lived by levying contributions on the people, or by voluntary presents. His only beverage was chocolate, and the cacao was contributed as voluntary gifts from people far and near. If he entered a house, and offered to buy, or expressed even admiration for anything, whether a chicken, a pig, or any other object, it was at once presented to him. It was considered as good as forfeited. If not presented, it would be sure to die anghow, and his ill-will would be gained besides. In case of any public calamity, like an epidemic disease, or a scarcity of food from drought, the chief only must visit him, and beg his intercessions with the spirits. He wonld pay no attention to private appeals. In case he felt inclined to be gracious, he would retire to his cave, and in due time after order a fast. The young man who now holds the position, is one of the finest looking men in the country. He is tall and well formed, his good-natured looking face bears an expression of serionsness hardly in keeping with his youth; and his whole bearing is grave and impressive. I was forcibly struck by his manner, being so strougly in coutrast with the light-hearted, talkative character of most of the people. When in
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Cabecar he visited ns twice, and on neither oceasion did he speak, except when spoken to, unless it was to make some remark, in very few words, and in a low tone of voice, to some of his attendants. Ilis dress ennsisterl of a white shirt, not over clean, a woven cotton breech-eloth, a bright-red handkerehief, tied in a roll around his head, aad a magnificent necklace of four strands of large tiger's teeth. He sald me two of the strings for half-a-dollar, and I presented him with some trifles, among whieh wats the rather suggestive article, a bar of soap. IIe accepted them without any ackuowledgment. But then they don't know how to say, "thank you."

Next in importance are the Tsu'-gurs. These are the ordinary priests, and their duties are confined to ofliciating at the feast for the dead. Like the preceding, they are hereditary; only members of one or two families can become priests, and these seem to have all descended from a common ancestor. I have already deseribed the performanees of the T'su'-gur at the death-feast of Santiago, and there is nothing to add in that connection. Other feasts only differ in the less degree of profusion and the shorter time they occupy. But there is one circumstance of which I have said little, and that has always seemed to me mysterious. Unfortunately, from no want of effort on my part, I was not suceessful in investigating this more thoroughly. The songs of these priests are in a language, dialect, or jargon, whichever it may be called, in great part nnintelligible to the uninitiated. Some words used are in the vernacular, but many of the nomus are peculiar. Si-bu, or God, has at least twenty names; many natural objects have names peenliar to the priests, and the difference is so great that not only $I$, with my imperfect knowledge of the language, but Mr. Lyon, who speaks it as well as an Indian, conld not muderstand even the purport of the songs. These songs are taught by rote to the young candidates to the priesthood, and are always rehearsed by the priests apart, before being sung. I made several efforts to obtain a vocabulary, lut in each case was defeated, rather by the want of understanding on the part of the priest, than from any umwillingness to impart what they knew. At last I made an agreement with the most intelligent and best informed of them. He was to visit me at a certain time and answer all my questions -for a consideration. But a severe attack of rheumatism prevented his coming and lost me the last chance. I have no theory to offer as to the origin of this singular fact. But two explanations however, seem possible. Either the whole thing is an invention, which I think hardly probable, or the system is an exotic, and the songs are in the original language of the missionary who introduced it. I can Iardly express my regret at failing to obtain some elue to so interesting a problem.

Finally come the Avas, soreerers, or doctors. This is an open profession, and since it requires but little preparation, gives certain privileges and standing, and brings occasional emoluments, it is pretty numerously filled. The fellows are an arrant set of quaeks, and I do not believe there is a single one who acts in good faith. Nevertheless, the people as a rule
believe in them. Some of the more intelligent or more civilized of the Indians, those who have been most in contact with foreigners, take foreign medicines when sick, but they are the exceptions. Their method of purifying an unclean person has already been described under the heads of child-birth and uncleanness. They also claim to bring or drive away rain. To do this, the doctor must have a pipe full of tohacco, or a cigar. He goes into the open air, smokes, blows the smoke in certain directions, calling out in an imperative tone of voice, "Rain, go to-" whatever place he may see fit to designate. Once when prisoners between two swollen rivers, forced to wait for them to fall low enough for us to ford; one of our few means of amusement was to give one of these fellows, in our suite, a pipe full of tobacco, and set him to clearing up the weather. He would go outside of our little hut, and between the puffs of smoke would call out, "Rain, go to Panama," "go to Chiriqui," "go to Cartago," in short, to every remote place of which he happened to know the name. It took him ten days before his efforts were crowned with success, and when ultimately the blue patches did begin to appear in the sky, he had the effrontery to calmly claim it as his doing! They also claim to "blow" a proposed route of travel, so as to drive away snakes and bring good luck on the route. In this case, the modus operandi is practically the same as for the weather. But their master efforts are when charming away sickness. To see the process, two of my companions feigned sickness and called in the services of one the doctors. He caused each one to procure a live chicken. Catching the animal by the neck and lheels he made passes all over the body of the patient, in every direction. Any small animal will answer. Sloths, opossums, even young alligators are used, and are said to be equally efficacious.

After some minutes of this manipulation, he lighted a pipe and blew tobacco-smoke at them. Having given them numerous injunctions about diet, such as forbidding the use of coffee, tobacco, pepper, and salt for a day or two, he went outside the house, and spent half the night seated under an orange tree, singing a doleful ditty, enlivened at irregular periods by unearthly howls and groans. His fee for all this was, in addition to the two fowls, used in the ceremony, and which was all he would have received from an Indian, sixty cents from one and forty from the other ; the fees being graduated by the gravity of the supposed infirmities. These doctors claim that their powers are based on the magic merits of certain charms they carry about with them. These charms are supposed to be calculi, extracted from the viscera of animals. Our friend, who tried to change the weather, possessed three of these. One purported to be from the liver of a sloth, another from the bladder of some other animal, \&c. I examined them with a glass, and am convinced that they were mere fragments of little calcareous veins, common in the metamorphic rocks of the country, and which had been ground smooth by friction. My little knowledge of medicine, and a moderately well-supplied medi-cine-case, enabled me to make numerous cures, and of course I soon
acyuired the title of A che When asked by my brother professionals to exhibit my charms, I always gravely produced my little poeket compass, which, by its mysterions movements, never failed to impress them. I never conld persuade the boldest to touch it.
Three kinds of fasts are observed. The first is only when ordered by the $U$-se'-kitl ru on great public oceasions. This is general and simultitneons overall the commtry. Sufficient food is prepared beforelamd to last for three ditys, the usual time fixed. During those three days, no fires are lighterl; the food is served and eaten in silence; no unnecessary conversation is allowed; the people stay strictly inside their houses, or if they go out during day time, they carefully cover themselves from the light of the sun, believing that exposure to the sun's rays would 'turn them black '" ; no salt or other condiment is used in the food ; no chocolate is drunk, and even tobacoo is forbidden. The scoond kind is similar, though less rigid than the first, and is voluntary; the same restrictions are observed with reference to fires and food, but the people may talk and go out, avoiding, however, carefully all chance of contact with bu-ku-ru'. The third is still more limited, and is the individual fast already referred to for cleansing from bu-kiu-ru'.

The feasts are of two classes; the death feast already described, and re-unions for labor. In the latter case; when a person wants to do an extraordinary piece of work, like clearing a piece of forest for a plantation, he provides a suitable quantity of food, and especially of chicha. On the day appointed his neighbors unite early at his honse, or at the spot designated, and work industriously until about noon. All then repair to the house, and, after a good round of chicha drinking, food is served, fullowed by more chicha. After a while daucing begins, and is kept up as long as the chicha holds out. Sometimes the work is continued for two or three days, but always ends early in the day, the afternoon and evening being devoted to eating and especially to drinking.

No labor can be accomplished without liberal allowances of chicha, and the man who is the most profuse in this respect is the best fellow. A man will sometimes undertake to make his own clearing, unassisted, but it is very slow work, and drags on at the rate of two or three hours' work a day, with many days of rest. The trees once cut down, the man will burn off the brush, assisted by his sons, or sons-in-law, if he has any, and then plants his crop; usually corn for making more chicha. After that it has to take care of itself. He goes out occasionally to hunt, fish, or sometimes to bring a bunch of plantains. When the corn is nearly ripe, the boys have to watch it to seare off the parrots and pigs. If there are no boys in the family, then all hands usually go and occupy a little shed in, or on the elge of the cornfield. They feast on the green and ripening corn mutil it is too hard to boil, and then collect what has been left to ripen.

The labor of the women is to bring plantains and water, and to cook and wash. They are never required to do work in the plantation, unless
it be perbaps, to help gather and to help carry home the corn. All the sewing is done by the men, even of the little shirts or jackets worn by the women. In carrying loads, the women rival the men in power and endurance. It is nothing uncommon to see a woman, with a big load on her back, and her year old baby seated on top, with his little legs dangling over the front edge of the load. The little monkeys ride securely there through the bush and dodge the overhanging vines and branches as expertly as could be done by an old horseman. When working for each other the people use their own machetes and axes, as a matter of course ; but when hired by a foreigner, they invariably expect to be furnished with tools by their employer.

Domestic industry is at the very lowest ebb. Manufactures can hardly be said to exist. The only articles made, beyond furniture, arms \&c., are hammocks, net bags, cotton cloth, and pottery. All of these are coarse and inferior in quality. None of the skill exhibited by the Guatemalan Indians exists here. The hammocks are made of a coarse twine, derived from the leaves of a species of agave, and are loosely woven in a frame, with a needle. They are hardly loug enough for an ordinary person to lie at length in them with comfort, and are used more for seats than for sleeping. They are swung between the posts of the house, near the door, and at a height of from a foot to a foot and a half from the floor. Everything is carried in net bags. They are made with a needle of bone and "meshed" like our fish nets. Some of them are very fine and they are of all sizes, from three inches to two feet deep. They are suspended by a string made of the same material, usually an inch wide and woven openly, in the same manner as the hammocks. The material of the finer and ordinary bags is the fibre of a species of aloe, or agave, much finer than that used for hammocks, and naturally nearly white. It is usually dyed of various colors to suit the fancy of the maker. The colors are obtained from several of the native plants and are very durable. A coarser kind is made of the same fibre as the hammocks. These are made with larger meshes, and are used to carry plantains, corn \&c., from the field to the honse.

The people of Tiribi procure all their bags from the Bri-bris, and I believe, their hammocks also. The Valientes, living beyond the Tiribis, in the adjoining parts of the District of Chiriqui, make similar bags, but much finer and mure elaborately wrought. The colors in the Bri-bri nets are always arranged in simple bands, while the patterns of the Valiente nets are often complicated and exhibit considerable taste.

Belts, breach-cloths, cloths for wrapping the bones of the dead, and women's petticoats are woven of cotton. The cotton is raised with no care beyond planting a few seeds and allowing the plants to take care of themselves. They grow to the height of ten or twelve feet. and almost every house has a few in its vicinity. The yellow flowers, buds, and open bolls are seen all the year round, together on every tree. The women collect the ripe cotton, pick it from the seeds with their fingers and spin
it. The loom is a simple frame of four sticks, the two upright ones are planted in the ground ; the other two rudely tied to these. The warp is wrapped around the two horizontal bars and a simple contrivance of threads is arranged to open and reverse it. The thread for the woof wound on slender sticks is then passed through in the usual manner and driven tight by blows of a smooth stick. The process is exceedingly slow and tedions and I have never seen it performed except by the men. The belts are usually two to three inches wide and four or five feet long. Breech-eloths are about four feet long and a litle more then a foot wide. The eloths for the dead and the women's petticoats are wider and a trifle longer: Except the cloths for the dead, which are woven white and afterwards painted, most of this cotton work is ornamented with colors. Besides native vegetable dyes, the people of Bri-bri buy cotton dyed a dirty purple with the blood of the murex. This is procured from the people of Terraba on the Pacific. They also now oceasionally buy colored threads of foreign production, especially a rich bluish purple, of which they are particularly fond. All of this weaving is with very coarse thread, nearly as thick as the finer twines used by shopkeepers in the United States for tying small packages. The cloth is consequently coarse in texture and rough in appearance, but closely woven and soft to the feel. It makes excellent towels, though rather heavy for that purpose. The largest piece of work of this kind I ever saw, was a blanket large enough to cover a good sized double bed. It was in possession of an old woman who wanted to sell it to me for a cow, and refused ten dollars cash.

The pottery now made is the coarsest and poorest I have ever seen. None of the finely made and elaborately ornamented vessels found in the huacas or graves are made at present. The use, for half a century or more, of foreign cast-iron pots and kettles has restricted this industry, and possibly helped to injure the character of the work. But two or three vessels taken by me from Tiribi graves, certainly not less than fifcy or sixty years old, are in no respect superior to those made at the present day. Native earthenware is now only used for receptacles for chicha. The jars are large--say from ten to twenty gallons capacity. The form is very simple, the workmanship is rough, the clay is coarse and badly mixed, the buning is almost always imperfeet, and they are always without the slightest attempt at ornament. The jars are moulded by hand, the clay being added spirally, and moulded by the fingers and trimmed with a smouth stick, in exactly the same manner as I have seen done by the negro women in Santo Domingo. After a certain amount of drying, they are burnt in the open air, in a fire of sticks heaped over them. Each jar is burnt separately.

Although not given to unnecessary exertion, these people travel occasionally from house to house, and even make jourueys to Terraba and Limon. The laziest will gladly walk for two days to a dance. They also occasionally go off into the less frequented regious to collect sarsaparilla, with which to buy whatever of foreign manufacture they may want, like
axes, machetes, cotton cloth, ©c. They never travel alone; always two or more going in company. This is a very prudent measure, since accidents are liable to happen, like snake-bites, or a bad fall, and a person alone and disabled in these wilds, would be more than apt to die before he would be discovered. The preparations for a trip into the forest are simple, but require time. If there are no plantains to be found in the neighborhood to which they are going, a large supply is collected. They are skinned, boiled, and dried hard in the smoke of a slow fire. This is to diminish the weight. A sufficient supply of com is ground and made into a paste, either with or without the admixture of ripe plantain, for chicha. This is done up in bundles of about a gallon and a half in bulk, carefully wrapped in large leaves and tied with strips, torn from the footstalk of the plantain leaf. At last, all being ready, every person loaded with all he or she can carry, they start out, the loads done up in as compact a bulk as possible and carried on the back, suspended from the forehead by a strip of mastate, or bark cloth. Each person also carries in the hand a staff, four or five feet long, made of some tough wood. For ordinary purposes, the entire trunk of certain slender palm trees is used. This makes a stick about as thick as an ordinary civilized walking stick, but very strong, and sufficiently elastic to yield a little without breaking. The chiefs and a few other persons of consequence, like the priests, usually carry a stick of the red wood described above. This is neither so strong nor so light as the palm stick, but it is a privilege of rank, and is preferred in consequence. If the party is going on a trading trip--while the stronger members carry the load of sarsaparilla or rubber, still there are always some, either women or boys, who carry the inevitable bundles of chicha paste. Even when going from one house to another visiting, or to a dance, the chicha is not forgotten, unless the distance is so short that they are not liable to become thirsty on the road. Ou arriving at a house, the party enters without a word, and each person seats himself where most coinvenient, but as near the door as possible. The owner of the house, or in his absence, his wife or the next most responsible person approaches the new arrivals and salutes with, "You have come;" "I have come;" "Are you well?" "I am well, how are you?" "I am well." If a particular friend, or a person of consequence, he is invited to seat himself in a hammock. The people of less importance are allowed to take care of themselves. In a few minutes the women of the house approach with calabashes or vessels made of folded leaves full of chicha. If chocolate is to be had, it is prepared at once, and offered in place of chicha. This is a delicate attention, only shown to friends or persons of consideration. Common folks must be content with chicha. Whether chocolate or chica, it is served at least three times, at very short intervals, and at last, when you cannot swallow any more, the polite thing is to say to the person offering 1f, "drink it yourself," an advice usually followed, and which stops the supply. If the people are particularly inclined to be hospitable, and are fortunate enough to be well supplied, it is not uncommon for the
risitor to be overwhelmed with little presents of food. I have been presented within half an homr, in one honse, with dive calabashes of chocolate, at least half-a-dozen quarts of chicha, a dozen or more ears of green corn, and a dozen ripe bamanas. The little loys, with whom I made friends, fared smmptuously, for it wasn't polite for me to refuse anything.

The houses of the Bri-bris are usually circular, from thirty to fifty feet in diameter, and abont the same in height. They are composed of long phles, reaching from the gromed to the apex. These rest on a ring of withes or vines, tied in bundles, eight or ten inches thick, and resting on a series of upright crotehed posts, set in the ground in a circle about a third smaller than the outer circumference of the house. Above this ring, if the house is large, are one or two more, according to its size, not resting on posts, but tied to the sloping poles. The whole is thickly thatched with palm leaves, and finished at the apex by an old earthen jar, to stop the leaks. There is but one aperture to the house, and this is a large, squarely cut door, left on one side. Over the door there is sometimes mate a little shed, to keep the rain out. The interior is always very dark. Sometimes, among the Bri-bris, instead of building the house in a circular form, it is elongated and has a ridge-pole, but the ends are rounded, and the cloor is in one of the ends.
Formerly the Cabecar houses were built in the same style; but now most of them are mere sheds, sloping to one side only and open at the ends and in front. The most pretentious house I saw in Cabecar was a roof sloping to both sides from a ridge pole to the ground, but open at both euds. The Tiribi houses are simply a roof. raised on short posts, sloping both ways from the ridge but open all around below. Mr. Lyon told me that formerly the Tiribis as well as the Cabecars had round houses like the l3ri-bris, but that the present style is due only to carelessness. The tribes are dwindling so rapidly that they seem to have lost heart even in so important a thing as building comfortable houses ; and are content to jut up with any make-shift that will shelter them from the weather. The Bri-bri houses are not only better constructed but are mueh better furnished than those of their neighbors. Beds are placed aronnd the house in the space between the posts and the sloping sides. These are made by planting in the gromud two sticks, forked at the upper ends; crossstieks are laid on these, the other ends being lashed with vines to the sloping rafters. Over these two horizontal sticks are placed boards made of the outer shell of a species of palm ; or wild cane is lashed close together. In front of the beds are slung hammocks, between the posts, or to the ends of horizontal stieks projecting a little beyond them. The fire is placed opposite the door near the back side of the house. It is kept up by placing close together, the ends of three large logs which are pushed up as they burn off. Over the fire is a barbacue or frame, sufficiently high to let penple pass under it. On it is placed food to keep it out of the way of the dogs, pigs, chickens, and auts. The smoke of the fire is sufficient
protection from the latter. Back of the fire-place are ranged the chicha jars, two or three in number. Being round bottomed, they stand on the floor propped up by stones. Scattered around the house are stools or benches, rarely more than six inches high, each carved out of a solid block of wood. They generally have four feet, though occasionally a small, roughly made one is seen, with but two feet, and which is only kept in upright position when somebody is sitting on it. The pots and kettles about the fire are all of American cast iron, aud vary in size from less than a quart to ten gallons capacity. Hanging from the barbacue over the smoke, is generally seen a cocoanut shell or a leaf bundle full of salt. It is kept here because it is the only place where it will remain dry. Suspènded from the roof are baskets of from one to three cubic feet capacity. .They are usually made of a peculiar, very hard, and very flexible vine. These are the trunks of the people, and in them are kept their clothing and all of their little personal treasures and ornaments. They are also used for storing corn or other seeds, like beans, the basket being then lined with leaves to prevent spilling. The women also use them for carrying water calabashes. These are either gourds or the shells of the fruit of the calabash tree, with a small round hole cut in one end. One other use of the baskets is to carry loads when the net bags are scarce. These nets are also often suspended about the honse in the same manner as the baskets. Axes, always of the make of Collins, of Connecticut, and long machetes, either of this or of some inferior make, are to be found in every house. Collins' hardware has gained a permanent reputation among these people, who will give twice as much for a leather handled machete of this brand, as for any other kind. Of other tools, the most noteworthy is a heavy stick sharpened to a chisel edge at one end and beveled on one side. This is used for making holes in planting corn or plantain sprouts, and the edge is used to beat down high grass. It works almost as effectually as a scythe. Hooked sticks for lifting the iron kettles, others cut with short radiating branches at the end, like a five or six pointed star, for stivriug chocolate, and paddles for stirring food are always found near the fire. Calabashes and gourds with small holes cut in one end for water bottles, and other calabashes cut in half for drinking cups, are also found in every house. Food usually, and even drink sometimes, are served in leaves, called in Spanish "platanillo," smaller and tougher, but otherwise resembling those of the plantain. These are dexterously folded so as to hold a quart or more of fluid without spilling.
Of arms, besides the inevitable machete and very good double-barreled guns, they possess bows made of a very tough kind of palm wood. They are straight and usuaily about five feet long. The string is made of the finer kind of agave fibre. The arrows are of three kinds. All have a butt two and a half to three feet long, made from the light flower stalk of the wild cane. This is a mass of pith, with a thin hard shell on the outside, giving the requisite stiffuess. They are not feathered. The
front end, from two to even four feet long, is made of the same wood as the bow. For fish this is sharpened to a point and is barhel on one, two, or even three edges, or is made round. For quadrupeds, the wood is shorter, not barbed, and is tipped with a lance-like head made by laborionsly griuding down an old knife blade to the requisite form. For small birds, the head ends in a broad round button, llat on the face. The Tiribis use also a little arrow, ending in a slightly open bunch of small reeds. These are for killing a fish, common in the Tilorio, never more than five or six inches long, and which rests attached to rocks by a sucking surface. The fish is so small that several points are necessary to the arrow, so that if ove does not strike another may. No poison is used on the arrows, and, in fact the people seem to know of none. In their quarrels, a stick is used over six feet long, nearly an inch thick and about two inches wide, and made of the same wood as the bows, arrows, and planting-sticks. It is very heavy and is grasped by the fingers and thumbs of both hands in such a manner that they are guarded from a blow. They guard and strike an "over-blow" always holding by both bands. They are going out of use now that the people have discovered the easier, but more dangerous process of litigation. Cracked heads and broken arms give way to damages. For killing small birds the blow-gun is used. This is a tube seven or eight feet long, made by punching and burning the pith out from the heart of a palm trunk, nearly two inches thick. They are made very straight and true inside, and are provided with a double sight on top, made of two glass beads placed half an inch apart: when finished they are covered with some resin or a species of pitch to keep them from cracking or warping. The missiles are clay balls. These, previously prepared are carried in a little net, with them there are two bone implements. One, simply a straight heavy piece of bone used to drive a ball out of the tube by its weight, in case of sticking. The other is similar in appearance, but the end is worked into a round pit with sharp edges, for trimming the balls to the proper size and shape. During the war between the Bri-bris and Tiribis, at the beginning of this century, the principal arm used was an iron-headed lance fastened to a shaft barely four feet long. For defense, round shields were carried on the arm, made of the thickest part of the hide of the tapir. I was fortunate enough to secure specimens of both, together with nearly all the other implements, \&c., described in the present paper. They are all in the Smithsonian Museum.

All people have some kind of music which doubtless gives pleasure to them, although to our unappreciative ears it may sound rude and disagreeable. The Marimba, an African instrument, found all over semicivilized Central America, is muknown here. I cannot understand the sarprise of an eminent African traveler, who writes wonderingly of the coincidence, of finding this instrument in use in Africa and among the Indians of C-ntral America. It was introduced with the Africau slaves and has been retained among their descendants and neighbors. The
savage Indians do not possess it. The drum is their greatest favorite. It is from twenty inches to two feet long, cylindrical for half its length, with a diameter of six or seven inches; it then tapers convexly to near the other end and then widens out a little. The pattern is always the same, and the size varies but a few inches. The larger end is tightly covered with the skin from the belly of the iguana lizard. It is giued on by fresh blood, being held in place with string until dry. A cord tied around each end suspends it loosely from the left shoulder, and it is held under the left arm, being beaten with the tips of the fingers of the right hand. It is used principally to accompany and keep time to singing and is an indispensable part of every feast or gathering of whatever kind. To accompany the invigorating music of the drum and help the din, an armadillo skin is sometimes used. This is scraped over the rings with a

- large hard bean-like seed. It at least helps to add to the noise, if it does not contribute melody. A little flute, about as musical as a penny whistle, is sometimes added to the concert, though it seems rather to be louked upon as a toy. These flutes are made of a bone of some bird, perhaps a pelican. The bone has half-a-dozen holes drilled in it, and the end is plugged with wax, so as to direct the air to the larger aperture near the end. I bought one from a Tiribi made of a deer's bone. The priests use in their songs a rattle, made of a small pear-shaped tree calabash, lashed to a bone at the small end. This contains a few seeds of the "shot plant," or Canua. It is held upright and solemnly shaken in time with the song until the end of the stanza, when, as a signal for the chorus to strike in, it is given a dexterous twirl, throwing the seeds rapidly around inside. On very solemn occasions a curious box is also used. It is about eight inches loug by four square on the end. It is carved outhollow, with a long tongue on' one face, isolated by a U-shaped slit. A heavy handle is attached to one end, also carved out of the same block. When used, it is simply struck on the above-mentioned tongue with a bone or piece of hard stick. This is only used on the death of a chief. There is but one in the tribe, and no bribe that I could offer sufficed to buy it.

Fashions in dress change even among savages, at least as civilization approaches. Formerly the dress of the men consisted only of a breechcloth. It was made of mastate, or bark cloth, about a foot wide and seven or eight feet long, tapering at one end. The cloth is made by taking the inner bark of either the India rubber or another tree and beating it with a roughened stick over a lig. This loosens the fibre, and renders it soft and flexible. It is then carefully washed until all the gummy matter is washed out. After drying, it is rubbed a little and becomes soft and smooth to the feel. To apply the breech-cloth, the wide end is held against the belly, the remainder being passed between the legs ; it is then wound around the waist and the point tucked in; the broad end then falls over in front, for about a foot long, like an apron. Wheu cotton cloth is used, it is simply caught up in front and behind urder a cotton belt, with a similar aprou in front. Sometimes, for warmtl, a shirt of
mastate was worn ; simply a strip with a hole in the middle for the liead, and tied under each arm with a piece of string. Now many of the men have discarded the breech-cloth, and wear cotton shirts and pantaloons, buying the stuff from the traders and sewing them themselves. Others, not so fir advalnced, wear a shirt and a breceh-cloth. Formerly the hair was worn as long as it would grow, fometimes rolled up and tied behind in a knot. Some of the conservatives still stick to the old style and follow this custom yet; others of the men wear their hair in two plaits, lut the majority ent it to a moderate length, and either confine it by a brightcolored handkerehief tied round the head in a roll, or wear a hat.

The dress of the women originally consisted of a simple petticoat (b, ana) of mastate. Very few now use this material, preferring the softer cotton cloth of the traders. The favorite color is a dark indigo-blne, with figurs five or six inches across, in white. The banu is a simple strip of cloth wrapped round the hips, with the ends overlapping about six inches in front. It is suspended at the waist by a belt, and reaches more or less to the knees. When on a journey in rainy or muddy weather, I have seen a simple substitutc. It was made of a couple of plantain leaves, stripped to a coarse fringe and wound round the waist by the midribs. With nothing above nor below it, it is the nearest approach to a fig leaf one can imagine. Only of late have the women begun to wear anything above the waist, and even now it is considered hardly necessary. Some of the women wear a sort of loose little jacket, or chemise, very low in the neek and short in the sleeves, that barely reaches the waist and only partially conceals the bosom. I have frequently seen a woman, in the liabit of wearing one of these, either take it off entirely, or fan herself with it, if warm, in the presence of a mumber of men, and evidently innocent of improper intentions, and unaware that she was doing anything remarkable. With this scanty dress, I must do these people the justice of saying that they are remarkably mo est, both men and women. In a year and a half of life in their country, traveling constantly with a body of them, bathing, fording rivers, living in their houses, and seeing more than strangers generally do of the intimate domestic life of the people they are among, I can only recall a single instance of carelessuess, and not one of a wanton exposure of those parts of the person, that their ideas of modesty required to be kept covered.

The dress just described is that of the Bri-bris and Cabecars. The Tiribi men, where they do not wear pantaloons, always use the native cotton breech-cloth, never the mastate. The women wear a long strip of cotton cloth, made with a hole in the middle, like a poucho, and reaching before and belind, nearly to the ground. It is gathered up at the waist by a belt, and the edges are caused to overlap at the same time, so that the whole person is securely covered. I was also told that muder this they wear a species of breech-cloth or drawers. They are much more retiring in their manner than their Bri-bri sisters; never speak
to a stranger except when spoken to, and then reply in as few words as possible and with apparent bashfulness.

For ornaments, all wear necklaces. The favorite ones are made of teeth, of which those of the tiger are most highly prized. Only the canine teeth are used. Small strings are sometimes made of monkey, coon, or other teeth, but are not much thought of. I have seen one of these made of five strings of tiger teeth, gradually diminishing in size, and covering the entire breast of the wearer. The women rarely, almost never, wear these. If they wear teetb, they are of some very small animal. In place of them, they use great quantities of glass beads. I have seen fully three pounds of beads around the neck of one old woman, and she was the envy of all her friends and neighbors. Even little girls are often so loaded down that the weight must be irksome to them. Money is often worn by the women. On one occasion I paid a man six dollars, all in Costa Rican quarters, for his month's work. After a few days I went to his house and saw the entire sum strung on his wife's neck. Shells are also sometimes, though rarely used. The men sometimes carry, suspended from the necklace, the shell of a small species of murex, with the varices ground off and a hole drilled in it to make a whistle. These are bought in Terraba, and are highly prized.

The men sometimes wear head-dresses made of feathers. The most highly prized are the white downy feathers from uader the tail of the large eagle. Others are made from chicken feathers, or are worked in rows of blue, red, black, yellow, \&c., from the plumage of small birds. I have seen one head-dress made of the long hair from the tail of the great ant-eater, in the place of feathers. The feathers are secured vertically to a tape and extend laterally so as to reach from temple to temple, curling over forward at the top, the tape being tied behind, so as to keep the hair in place.

Painting is somewhat in vogue, to assist in the adornment of the person, but is not confined to either sex. The commonest manner is to color each cheek with a square or parallelogram, about an inch across, either solid or made up of bars. This is done with the dark reddish-brown sap of a certain vine, and the pattern resists wear and tear, and water for a week or more. Anatto is also used, but more rarely, and is applied in bars or stripes to the face, according to the skill or taste of the artist. Besides, a hideous indigo-blue stain from a fruit, is sometimes smeared on the face or body, but even savage taste does not seem to approve of this, since it is very unusual.

Formerly the Tiribis tattooed small patterns on their faces or arms ; but the younger people have not kept up the custom, and the Bri-bris and Cabecars say they never did it. The chiefs on great occasions wear gold ornaments, similar to those now found in the Huacas, or graves of Chiriqui. Whether these have been recovered from some of these graves, or whether they have been handed down from time immemorial is not known. There are but four or five in the tribe, and two of these belong
to the reigning chief. The others were formerly also property of the chiefs, but are said to have been given as rewards of merit to the most successful leaders in the Tiribiwar. The two belonging to the chief, as well as one belonging to the descendants of one of those warriors, all represent birds. The people call them eagles. The largest is between three and four inches across ; the smaller of the chief's two, is doubleheaded. In comection with these "cagles" another royal emblem might be mentioned. It is a staff of hard black palm wood, over four feet long. The top is carved in the shape of an animal, not unlike a bear sitting on lis hanuches. But there are no bears in this comntry, and it must have been intended for some other animal. Below this figure, the stick is square, and is carved ont into four pillars several iuches long, with spaces between them. In the interior, between them, is a cavity in which a loose piece of the same wood can be shaken about. It was evidently left there in the carving, after the fashion of the Chinese. Below this, the stick is plain. I tried every means in my power to obtain this, but could not buy it.

Games of chance or of skill are equally unknown, and even when brought into contact with civilization, they do notseem to take kindly to gambling. In fact, they have so little to win or lose, and that little is so easily obtained, that the inducement does not exist.
Their food is simple in material and there is but little variation in the manner of preparation. Of meats, besides chickens, they have beef and pork, which are however rarely used except at feasts. They know nothing of salting meat for future use and can ouly consume one of these animals when a large number is together. Besides the scarcity of beef is so great that probably no Indian possesses more than one or two animals at a time. Wild meat, like peccary, red monkey, (the other species are rarely eaten,) tapir, tiger, even otter, armadillo, and some other small animals are occasionally shot. In this case, all of the meat that is not eaten at once is dried as hard as a bone, and perfectly black, in the smoke of a slow fire. Larger species of birds like curassow are also treated in the same way. It is an interesting fact, universally attested, that the bones of this bird are absolutely poisonous to dogs, while the meat, though tough, is not unpalatable and is perfectly imoxious to man. After a meal it is the never-failing custom to gather all the bones carefully, and either burn them or place them out of reach of the dogs. I do not know whether the flesh would be equally dangerous, though I doubt if it was ever wasted on a dog. This property is said to be due to some fruit or seed they eat. Of vegetable food, plaintains are the staple. In times of scarcity, bananas take their place, besides being eatell raw when ripe. The Indians also occasionally eat a raw ripe plantain, although they are coarse and the flavor is inferior. The methods of preparation are, roasted green, when they make a poor substitute for bread ; roasted ripe, when they are eaten with chocolate, with the idea of sweetening it. They are also boiled green, with meat, with green corn, or even alone. Ripe plau-
tains boiled and mashed, are mixed in equal quantities of corn-meal paste to make chicha, or to bake in cakes. They are also, when ripe, boiled, mashed into a paste, and mixed with water into a gruel. This is drank under the name of mish $h^{\prime}-l a$. Maize is raised in considerable quantities, and this really involves four-fifths of all their agricultural labor. The corn is of a variety of colors ; white, yellow, red, purple, blue, and almost perfectly black. Sometimes the ear, rarely more than six or seven inclies long, is of a uniform color, but more generally the grains are of two or more colors. It is boiled green and eaten from the cob, and is thus considered a great delicacy. It is, when ripe, ground for all other purposes. The process of grinding is rude and simple in the extreme. If possible, a stone, three feet long and two wide, with a flat upper surface, is procured, In default of this, a broad slab of wood is used. For this purpose, a piece cut from one of the plank-like buttresses of the Ceiba tree is procured, and one side dressed smooth. The remainder of this primitive mill, is a stone, about a foot or fourteen inches long, a few inches less in width and three or four inches thick. One side must be regularly curved. The corn, soaked over night to soften it, is placed on the flat surface and the stoue last mentioned is rocked on its edge, from side to side. This is always done by the women. When the corn is sufficiently ground, the paste is put into an iron pot and boiled to mush. If it is intended to make cakes, a part of the raw paste is mixed with an equal quantity of boiled ripe plantain paste, to sweeten it. It is then rolled in plantain leaf and baked in the ashes. When the paste is boiled, sometimes a part of it is separated, thinned to the consistency of gruel, and drunk hot. If it is inteuded to make chicha for the road, the thick mush is at once mixed with an equal part of ripe plantain paste as before, and tied up in leaves. This will keep sweet for two or three days, but gradually fermentation takes place, and at a week pld, it has a not unpleasant sweetish acid taste. When ready for drinking, it is dissolved in cold water to a thin gruel. The taste for it is easily acquired, and I admit, I became very fond of it. It certainly does possess intoxicating properties, but I cannot conceive how any civilized stomach could accommodate a sufficient quantity to produce exhilaration. Still I have seen Indians very happy from its.effects. But since I desire these notes to be believed, I do not dare to state the quantity I have seen one of these fellows drink. Were oniy half the truth told, it would appear incredible. The method of preparing the chicha for use in the house is slightly differeut. The paste is thinned at once, while yet hot. The plantain paste, also thinned, is poured into the earthen jar with it, and sufficient water is added to bring it to the proper thinness for drinking. To produce rapid fermentation another process is yet necessary, which I saw once at Dipuk on the Uren. A young girl (young girls only, with sound teeth perform this operation,) having previously rinsed her mouth with a little water, sat down on a low stool, with a pile of tender raw corn beside her, and a big calabash in her lap. She chewed, or rather bit the grains from the
ear and ejected them from her mouth into the calabash. The rapidity of the process was marvelous. She seemed to shave all the graius from an entire ear almost without stopping. There did not to seem be mach chewing done, but of course the object was to obtain the saliva secreted during the operation. As fast as her ealabasla was full slie emptied it into the jar of chicha, and proceeded to refill it. I lay in my hammock fully half an hour watching her until she had finished. The next day that chicha was drank and pronounced excellent. I never tried this kind. Such is the fore of prejudice. I learned early to prefer doing my own eating.

Beans are also used to some extent, but the quantity planted is generally small, and the people soon have to return to their regular plantains and chicha. I do not think I ever saw half a bushel of beans together in one honse. They are large, dark, and generally mottled. They never become very hard, and are of a rery good flavor. Small quantities of sugar cane, of a very excellent quality, are raised, wnt it is only for the purpose of chewing. They never attempt to make sngar or syrup, although some of the foreigners in their country as well as the negroes on the coast make the latter, and the Indians are perfectly familiar with the process. Of the foreigners in the conntry, perhaps a dozen in all, sambos or mulattoes. with the exception of Mr. Lyon, all raise rice as one of their most important food-staples. The Indians are fond of it, frequently buy it, but never attempt to cultivate it. Of the less important items, they have the fruit of a species of palm called $d u$-ko ${ }^{\prime}$ (pejiballe of the Spaniards). This is a small pear-shaped fruit, growing in great chusters; it has a thin skin on the outside, and a small round seed in the centre. It may be compared to a diminutive cocoanut, the edible portion corresponding with the fibrous lusk of that mut. The seed corresponding with the cocoanut proper; is solid and very hard, but has a pleasant flavor. The fruit is very easily raised, requires no care beyond the first planting, and a little weeding for the first year or two, and yet, except at Sarwe, it is very scarce. It is from the wood of this tree that the bows, the arrow tips, the planting and fighting-sticks, \&e., are made. Another species of palm furnishes a food, agreeable to the taste, an excellent salad when properly dressed, a perfect substitute for cabbage when cooked, but withal, as my party discovered on one hard journey we made, not very nutritious. It is the bud of tender, half-formed leaves at the top, and can only be obtained by cutting down the tree. It is similar to the deservedly famous palm cabbage of the West Indies, and differs principally in being only about half as large. We found, after living on it almost alone, for nearly a week, that it was good principally for deceiving one's self into starving on a full stomach. Filiti, or "greens" is a favorite dish, probably not much more nutritious than the last. It is made from varions tender leaves, put into a pot with little or no water, and gradually steamed into a paste with their own juice. This is eaten with salt when they have it; otherwise, without.

Cacao is in great demand. The delicious sub-acid pulp is first sucked from the beans, which are roasted and ground on the chicha board, or stone into a coarse paste. It is the greatest luxury they possess. And still, I have never seen a young cacao tree belonging to an Indian. They depend for their supply on the old trees, planted by past generations. I have known an Indian make a two days' jouruey to collect a little cacao, when less labor would plant him fifty trees near his house.
Fishing is rarely performed with hook and line. They have two methods. One is to shoot the fish from a canoe (all the canoes belong to foreigners), or from the shore, or a rock. They use very long arrows, described previously, and are quite expert. Another method is to select a channel of the river beside an island. A frame-work is built at each end, of sticks and cane, which extend completely across the stream. When everything is ready, the people stationed at the upper end rapidly cover the frame-work with the leaves of the cane, so as to stop the water running through. Those at the lower frame, also spread on cane leaves, but thinner, only so as to keep the fish from passing through. Both parties must work at the same time, and as rapidly as possible, because as soon as the fish find the level of the water lowering they attempt to escape, and I was told that it has sometimes happened that every fish has gotten away before the dams were finished. In the course of a few hours the water is so low that the fish congregate in the deeper pools and are shot with arrows, or even taken out by hand.

The only divisions of time known are the natural astronomical ones : the day, the lunar month, and the year. A glance at the vocabulary will show that special words are used for day in the abstract as distinguished from night, and for to-day, to-morrow, day after to-morrow, \&c., and for yesterday, dc. The month is called by the same name as the moon, "si." The year is counted from dry season to dry season, and is recoguized by the ripening of the flower-stalks of the wild cane, on which they depend for arrow-shafts. It is called $d a-w a s^{\prime}$ from this connection.

The local diseases of the country are fevers, acquired by going to the coast; or by the hill people, by going dowu to the low lands. They sometimes seem to become epidemic, due to an unusually wet season, or to the continuance of the rains throughout what should be a dry season. The summer of 1874 was particularly fatal in this respect. Rheumatism is common, especially with the older men. It is brought on by much exposure to rain, aud by wading rivers when heated, on journeys. But the commonest infirmities are indolent ulcers, usually on the legs. They originate from any little scratch or bruise, aud are the result of the low vital state of the system, due to a bulky but innutritious diet. A wound which, in a person in good health, would heal in a week, may result with one of these people in a sore lasting years, and perhaps at times involving an area twice as large as the hand.

Of remedies, they may be safely said to have none. They are learning

[^0]to apply to the traders for medieines for fever. All go to Mr. Lyon in case of snake-bite, and when taken in time, he siys he has never failed to emre a case with either ammonia or iodine, as seemed to be indicated. It may be interesting to note that after oltaining no relief with one of these medicines, he has given the other, and with immodiate gool results. He gives the ioline in the form of ateoholie tineture in 10 to 15 -drop doses, every 10 to 15 miuntes. Some of them seem to believe in the incantations of the fious or doctors, but foreign medicines are gradually gaimug ground over sorcery. For rheumatic pains, headaches, \&e., there are two remedies used. The simplest is counter-irritation by whipping with nettle leaves. The other is bleeding. The lancet is made usually from the tongue of a jew's-harp, broken off at the angle and sharpened to a point. This is set at right angles in a little stick for a handle, and is used by holding it over the affected part and striking it briskly with a finger. They never regularly open a vein and draw off a quantity of blood, but every stroke makes a separate puncture, from which only a few drops exude. At Borubeta I saw a man bled to relieve the aching of fatigne in his arms. He had been scraping agave leaves, to extract the fibre for hammocks. Ile had at least fifty punctures made over his two arms.

The natural products of the country are principally sarsaparilla root and india rubber. The sarsaparilla vine is green, angular, and covered with thorns. It grows very long and climbs over bushes and even trees in the more open parts of the forest. At short distances it is jointed, and if it tonches the ground every joint sends out a new set of roots. The leaves are large and acuminately oval and have three longitudinal ribs, the midrib and two parallel ones, half way between the middle and the edge. The fruit is round and grows in a cluster something like grapes. The vine has a tap-root, and besides sends out a large number of horizontal roots near the surface of the ground, and from six to ten feet long. The sarsaparilla hunter first clears away carefully all the bushes and undergrowth with his machete. He then, with a hooked stick, digs into the ground at the base of the vine until he loosens the earth and fiuds where the best roots are. The tap-root is never disturbed, aud it is customary to dig up ouly half the roots at a time, to avoid killing the vine. Having selected those that look most promising, he places his hand under one or two and gently lifting them, follows their course with his hooked stick, loosening the soil and lifting them out, following them to their ends. They are then cut off, the dirt carefully replaced aromed the vine, and the roots laid in the sun, or hung up to dry. A vine yields generally from four to nine pounds of green roots. When dry they are tied into cylindrical rolls a foot long and four or five inches thick, weighing about a pound.

India rubber is obtained by scoring the bark of the trees obliquely. Several cuts are placed one above another and in pairs converging downwards; the sap being directed in its How by a leaf placed at the bottom, which serves as a spout, to direct it into the vessel placed to receive it.

When collected it looks like milk. It is caused to coagnlate and turn black by the juice of a species of convolvulus. It is generally made into cakes a little over a foot long, about eight inches wide and an inch thick.

It is with these two articles, and an occasional deer skin, that all the purchases are made from the traders. They buy various kinds of cotton cloth for clothing, colored haudkerchiefs, needles, thread, machetes, axes, kuives, iron kettles and pots, a few medicines, and powder, shot, and caps. Their intertribal trade is still more limited. The Bri-bris sell net-bags and hammocks to the Tiribis, and formerly made the large cotton blankets, already described, for sale in Terraba. They buy in Terraba cows and dogs, murex-shell whistles, murex-dyed cotton, and beads made by rubbing down a small species of shell of the genus Conus. Sometimes both the Bri-bris and Cabecars, but especially the latter, carry sarsaparilla or rubber a hard ten-days' journey to Matina, to exchange it for cear, of which they might have enough and to spare for the mere trouble of planting it. But Indians are, almost without exception, a lazy, miserable, and unimprovable race.

It is perhaps advisable to state that the whole of the present memoir was written in Costa Rica, and it was not until my return to Philadelphia, that I eucountered the elaborate compilation of Baucroft, on "the Native Races of the Pac fic States." At the date of the present writing, but three volumes of the promised five have made their appearanef. While I regret that the information in that work, on the present field is so meagre, and in some respects so different from my own observations, I have said nothing which I wish either to retract or modify. I state nothing but what I have seen and learned while living among the people whom I describe. At the same time I trust that 1 may not be accused of a spirit of antagonism, in pointing out some of the more serious errors in the work in question, and which, if not corrected, might seriously mislead future students.

Vol I. Chapter VII. p. 684, et seq. is devoted to "the wild tribes of Central America," and the Indians living below Lake Nicaragua, and the San Juan River are here clesignated as Isthmians; au appropriate name, since the family seems to cover all of Costa Rica and most, if not all of the State of Panama. But the map, facing p. 684 is utterly incorrect in so far, at least, as it professes to give the distribution of the Indians of Costa Rica.

The region of Talamauca described by me, as containing the three tribes of Cabecars, Bri-bris, and Tiribis, and known to the Spaniards under the generic term of Blancos, is here given up to the Valientes, who should be placed to the south and south-east of the Chiriqui lagoon ; and the Ramas, who live in Nicaragua, back of the Mosquito coast. The central platean, in which are situated the cities and towns of Atenas, San Ramon, Alajuela, Heredia, Sau José, Cartago, \&c., in short, that occupied by practically the entire Hispano-American population of Costa Rica, is here given to the Blancos, and on the slrores of the Gulf of

Nicoya, where at present no Indians live, are placed Orotiñans and Guetares. Further, no tribes are plaeed in South-western Custa Rica, where the semi-civilized Termbas and Brunkas live ; but on p. it8, the anthor states that "dwelling in the westem part of the state are the Terrabas and Changuenas, fieree and barbarous nations, at constant enmity with their neighbors." Now the Terrabas, as well as their neighbors the Brunkas, or as the Spaniards call them, the Borncas, live in one or two little villages, and are under the complete control of missionary priests, both eeclesiastically and municipally, and are ripidly losing their language, as they have their savage customs, and are approaching the civilized condition of the villages of Pacaca, Coa, Quiricot, \&c., in Costa lica, where the Indians speak only Spanish, and have even lost the traditions of their former state. Again, the Changninas formerly occupied the valley of the Changuina or Changina River, the main branch of the Tilorio, on the Atlantic slope, and are either entirely extinct, or only represented by a handful of individuals, swallowed up by the neighboring Tiribis on one side, and the Valientes on the other.

In the proper place I have noted what can be said of the Guatusos; there is nothing to add, until a responsible observer has the good fortuno to penetrate their country, and survive to tell his tale.

On p. 793 of Vol. 3, is a very short vocabulary of "the language of the Talamancas," copied from the publication of Scherzer. This traveler did not visit Talamanca, but from internal evidence I believe the words to have been obtained from some of the half-civilized Cabecars of Tucuriqui or Orosi, little villages not far from Cartago. In evidence of its unreliability, I note two or three of the most glaring errors of the list.

> "Man signa-kirinema. Woman signa-arágre."

Here signa, clearly a clerical error for sigua, means foreigner, and the word given for woman-sigua evákur means foreign woman. So, the prefix $s a$ and $s u$ before the names of parts of the body is the personal pronoun-our. Suhu is sahu "omr honse." "I be-he," is really thou, the error arising from the Indian answering thou, when he was asked, "how do you say I," the interlocutor doubtless pointing to himself. Fortunately the vocabulary is very short, but I am sure there are not more than three or four words in it that would be intelligible to a Costa Rican Indian.

## Chapter II.

## THE LANGUAGES OF SOUTHERN COSTA RICA.

## SEGTION I.-THE BRI-bRI LANGUAGE.

In the following notes, I have endeavored to embody such ideas and conclusions as I have arrived at while studying the language and compiling the vocabulary. From the difficulty of obtaining information from ignorant people, and from my own, by no means perfect knowledge of the language, possibly errors may have crept in, but while I do not think any important ones will be found, I do not venture to claim infallible accuracy. For a year I labored to find some rule for conjugation, and was obliged, as it were, to educate my informers up to the point of being able to give me information about a subject they had never thought of, and could see no use for. Not content to accept their statements categorically, I watched carefully the use of the verbs in their inflexions, and by dint of cross-questioning a number of people, and rejecting everything that was contradictory, I think the few verbs I have selected are correctly given. I have had the advantage not only of a year and a half in the country, in daily contact with a fellow-countryman who spoke the language fluently, enabling me thereby to learn it; but for two months, in the meantime, while absent, I had several intelligent Indians with me who understood Spanish, and finally, after returning to civilization, I had with me for eight months a native, with whom I talked habitually in his own language, and from whom I obtained many corrections of the errors that a stranger must necessarily make. This boy became an apt teacher and voluntarily set me right whenever he heard me use an incorrect expression.

Counting the few abstract words which have doubtless escaped me, and all the specific names of animals and plants, and many of the latter are made up of an adjective, or the name of some plant, combined with wok (tribe), I do not think the language can contain two thousand words, and perhaps not fifteen hundred. In preparing the vocabulary I have rejected most of these specific names, because there is no corresponding English word, and a complete natural history collection, carefully studied by competent students, would be required, so as to obtain an equivalent. Even then it would have been useless, because the names vary locally as much as similar words do in English.
In compound words, I have in most cases pointed out the roots, and separated the component parts by $a+$ sign. Although so much detail may have been unnecessary, the study was interesting to myself, and some of the curious results may also interest others.

There can be no doubt bat that this and its allied dialects, like all unwritten languages, are undergoing great changes. The language spoken in Terraba was formerly, and prebably not long ago, the same as that of Tiribi. There are marked differences between the Cabecar of Coen and that of the Estrella or North River, and even local differences in the use of $r, l$, and $d$, can be observed between the half of the Bri-bri
tribe living on the Uren, and the others seattered over the rest of the comutry. In different districts "a little," wi ri-eri'-ri is also pronounced $b i-r i-b i^{\prime}-r i z a n d$ wi-di-ai $i^{i}-d i$, and many other words especially those with $r$ or d before a rowel, vary fully as much. As has been justly observed by Max Müller, lazipess often helps this. The present name for rain lion'-ni for instance, is clearly derived from liony' $-l i$. In faet the proof exists in the form of the word for dust liony'-mo-li. But lion'-ni is easier to pronounce than lomin'-li, and has taken its place.

It would be an interesting study to trace ont the ideas which lave inllaenced the formation of esmpound words. In Bri-bri, a hill is konj'-be-tu, the point of the conntry ; in Cabecar it is kong-tsu', the breast of the country, from $t s u$, a woman's breast. $\Lambda$ gain in Bri-bri a sharp knife is said to be a-kicu'-tu, toothed (that it may bite, or cut), the beak of a bird is called its tooth; and the same root ( (2roo) is used for a finger-nail, a fish-scale, a bird's feathers, the bark of a tree, or the rind of a fruit.

Some few words are used in such varied comnections that they warrant special notice. Among these are wo, konig, i-tu, kin, ©e. Konig is a part of nearly all words relating to the earth, the sky, the atmosphere, in short the general surroundings. It means the country, the day, the weather. In composition it forms part of the word for a hill, valley, dec. Wo means originally round, either circular or globular. It is also applied to almost all masses or lumps ; it further forms a component of words having a reference to entirety or completeness; thus alone, it means the human face, in compounds it forms a part of the names of the sun and moon, of many parts of the human body, of a drop of water, of a knot, of fruits, seeds, \&ce ; and of verbs, such as to make, to close, to open, to extinguish, to tie, de. ; $\check{\imath}$-tu' means originally to chop, but is applied to shooting, striking with intention of wounding (in contradistinction to $i-p u^{\prime}$ to whip). It also forms part of the verbs to shat, to extinguish, to lie (or throw one's self) down, and, in the latter sense is also used for to pour (to throw out of a vessel). Kin means a region, or district, and is always used in connectiou with some qualifying word; thus Lari-lin, the country or region of Lari ; dĕ-jé-liin the salt region or sea; tsong'-kin the sand region, or beach; but myo-ro'-liin means in or on the road, and bé-ta'-kin on top (of a hill or mountain). Ki-cha' means originally a string; derivatively a vine to tie with is tsa' lit-chu, or a string vine. Veins and tendons are called by the same word on account of their resemblance to strings, while the joints of the limbs are called lie-chut-uno or the lump of strings. Pu and pe, mean people; the former combined with the 3 d person, singular, personal pronoun ye, makes ye-pa, the $3 d$ person, plural. It is also used combined with voak, tribe; thus, Lari-ıouk, means the people of Lari ; sa wak-i-pa, our people; in this case used probably as much for elearness as anything else, since tsa-voak, ("vine-tribe") means ants! IFa-vak-i-pa, your people. Pe, used alone means somebody ; whose is it? "pe cha;" "somebody's," cha being the sign of possession.

There are several words which change their form, or which are even substituted by others, according to the sense or connection; thus $u^{\prime}-t e-T_{i} i n$, sometimes pronounced $\hbar u^{\prime}$-te-kin, means out or outside of the house or of anything else in all ordinary cases; but for a person to go out of the house is not mia $u u^{\prime}-t e-k i n$ or mia $h u^{\prime}-t e-k i n$, but miâ $\hbar u p a^{\prime}-g l$. This pa' ${ }^{\prime} g l$ is used iu no other connection; and the sound occurs nowhere else in the language except as pagl-chi-ka (sugar) and pagl, the numeral eight with either of which, it is obviously not related. But the numerals illustrate this most markedly. For instance three is $m$-nyat, and as such it is used in counting all things; three houses, hu m-nyat; but three meu are pe $m$-nyal and three days are kong m-nyar. Bit, how many, becomes bil, how many persons, ©c. Old, fat, to grow, pregnant, de., change in a similar manner when applied to animate and inanimate, or to human and lower objects.
It is remarkable that in a language otherwise so poor, at times it should go to the other extreme. In civilized languages, notably in Spanish, there is a great variety of words to express the shades of colors of animals, particularly the horse. These words, originally adjectives, are often used as nouns. But in Bri-bri we have eight nouns to distinguish pigs, six of which are for color ; viz.:

| white, | mu-lush'. |
| :---: | :---: |
| black, | do-losh'. |
| gray, | bish' ${ }^{\prime}$. |
| red, | mash ( $n$ as in $\mathrm{f} a \mathrm{r}$ ). |
| half-white, half-black. | bй-tsus'. |
| black, with white face, | kü-jos'. |
| with throat appendages, | bu-lish'. |
| short-legged, | $n a^{\prime}-n a$ (Spanish enana, a dwarf). |

These words are in every sense nouns only, and are just as correctly the names of the respective animals as the generic term "coche." Chickens and dogs have similar distinguishing names, but I have never been able to learn that horned cattle (vaca, whether bull ol cow,) are so honored. Horses are comparatively unknown. The only representative of the race in the country being Mr. Lyon's old yellow mare, there has never arisen the necessity for the additional tax on their inventive powers. Words expressing physical qualities of matter are as abundant as in more civilized languages, and their use is as strictly limited. Hard, strong, or stiff, is dĕ-re'-ree.' Soft, like a cushion or fresh bread, is $b-j o^{\prime}-b$ jo, while soft like cloth it is $a-n i^{\prime}-a-n i$ or $a-n i^{\prime}-n i-e ̆$. Weak or fragile, like a string, or a vessel, powerless like a weak person, or tender like meat, are to'-to or totoi'. Elastic, like caontchouc, is ki-tsung'-ki-tsung; when like a switch, it is kras'-kras. Plastic, like mud or putty, is $i$-no ${ }^{\prime}-i-n o$. Pasty, like dough, is $i$-tu-wo . When more fluid, like very wet mud, it is $a$-bas ${ }^{\prime}-a-$ bas. Viscid, like syrup or honey, is kŭ-nyo'-kŭu-nyo ; while very fluid, watery, is di-se-ré-ri.

Plantains, bananas, maize, and beans must have been in use by the Indiaus before the arival of Europeans, since they have specitie names for all of them, but all domestic amimals have only the names that came with them.

I have found very few words that I can trace clearly to foreign sources. The names of introflucet animals, mentioned above, articles of clothing, and foremu utensils make up almost the entire list. We have ar'roz, spanish arros' ; sombre'no, Sp. sombrero; zuputo, pure Spanish; panu, English pan, all hollow vessels of thin metal, of whatever form ; cuchara, spanish ; bi-wo, English bead, wo native word for anything round ; tigera, Spmish; pussy, English; chi-chi, Aztec techichi, the edible dog of Mexico (fille Belt), a word used all over Spanish America, and adopted by the Mri-bri and adjoining tribes in the Spanish form; cuchimba, vulgar Spanish ; tue-cu', probably corrupted from tabaco; lio-no', corrupted from canoe ; vacu, cubrillo, and coche, Spanish. Almu, a corpse, bears a suspicions resemblance to the Spanish almu, the soul. Do ko-ro', a chicken, seems to be derived from the crow of the cock; $i-e^{\prime}-n a$, is probably not the Spanish llent, with which it corresponds in meaning, but is clerived from $e^{\prime}-n c$, fimished. Ese, that, and es-es ( $=$ Spanish eso es) are probably derived from the Spanish.
The ennmeration is decimal, and is simple in structure. Few pretend to count beyond ten, and in counting loose objects if the number is considerable, they are set apart in groups of ten; thus forty-six would be four tens and six. In speaking of numbers the fingers come into play. It is as common to see three, four, or more fingers held up, with the remark "so many" as to hear the numeral mentioned. Beyond ten, the toes are called into service, and the surplus over the ten toes is counted on the fingers, held duwnwards in this case. The word for five, skang, is clearly ( $u-r(t) s k a$, the fingers. Beyond ten we have "teu more one," sc., but from twenty upwards I found so much confusion of ideas and contradiction that I strongly suspected my informers of politely trying to invent compounds to please me. By careful questioning, and still better, by watching couversations, I found that twenty is "ten two times," ©c., after which the form of the "teens" is repeated; so that twenty-one is "ten two times more one," d'bos but juk ki et. There is no word for one hundred unless we use $d^{\prime} b o b d^{\prime} b o b j u k$, which would be legitimate and intelligible, although I confess I never heard it used.

Wa, $k a, k e$, and $t a$ added as suffixes are equivalent to the English ed. Thus $i$ - $d a-v o^{\prime}$, to die; $\check{\imath}$ - da-wong'-wa, dead; lin'-a, crazy; yalin'-a-ku, he is crazed ; pat'ye, to paint; pat-yet ${ }^{\prime}$-ke, painted; su-tut', flat ; sut-trt'-ke, flattened ; boi, good; boir'-ke, healed; b - $t x^{\prime}$, a point; bĕ-ta'-ta, pointed, icc.
Kli used as suffix is equivalent to our ish; thus boi, good; boi-kli, goodish (i.e. pretty good or well); tyng, large; tyng'-kli, largish; mut'-ke, red; mat'kli, reddish. Ung and ong, which in Terraba and Tiribi are almnst the universal signs of the active verbs, are represented by the termination
ung in nearly a dozen Bri-bri verbs, where it has about the same value as English affix ate.

Articles and conjunctions do not exist in the language, the other parts of speech being however present.

Nouns have no inflections for gender, number, person, or case. If it is desired to express sex, the word male or female is used; thus my daughter is called je la e-ré-kur, my woman child ; a bull is vaca wé-nyi or male cow. The only exceptions to this rule are the few words referring to the human rase, like man, woman, and some of the family relationships. Beyond this no distinctions of gender occur.
Number is always indicated by a numeral or by such words as much, many, \&c. Two or three words occur that may be considered as apparent exceptions. Di-cha' means a bone; di.che' is bones. Di-kear is thorn and $d i$-kie is thorns, not two or three, but all the thorns on a tree, in a collective sense. U-ra'-ska (u-ra arm) is a finger, while $u-r\left(b-\right.$ shlkwe ${ }^{?}$ (? fingers) is the hand. The coincidence in the termination of these isolated plurals, if they can be so called, is worthy of note.

Person is only indicated by the addition of a personal pronoun. The only semblance of iuflection for case, is the addition of chat, the sign of possession, alike to moms and pronoms ; or of the prepositions, wa, tcs (with), \&c., as suffixes, making an ablative.

The personal pronouns are all monosyllables except ye-pa (they), a compound of ye (third per., sing.) and pa people. Although normally of one syllable, they are often used with the termination re (except ye-pa) for either emphasis or euphony; thus it is equally correct to say $j e$ or $j e^{\prime}$. $r e$. Me (yourself) is used only in connection with a verb, like me-sku, move yourself ; me tu is, lie (yourself) down. The sign of possession, as stated above, is added alike to the pronoun, or to the name or title of a person; je-chia, mine. Ese (that) is probably derived from the Spanish, and with $i$ (literally what) does duty for the neuter. Where the nouns in a language are so simple, it is hardly to be expected that the adjectives and adverbs should suffer many changes. Boi, good or well, used either as an adjective or adverb, becomes boi-na, better, and a sort of superlative is formed by adding very ; boi chukli. Tyng, large, is in an increased degree either tyng chululi, very large, or tyng bru; bru meaning also large but adding emphasis when the two words are combined. To boi and tyng, $k l i$ is added as a suffix to qualify the sense, like $i s h$ in English; boi-kli, goodish, pretty good, and tyng-kli, largish, or somewhat large.

The short $i$ which begins most of the Bri-bri verbs, is not specially the sign of the infinitive, but is almost universally used where the verb is not preceded by another word, and is sometimes used even then for euphony.

There are four well-defined moods : the infinitive, the indieative, the subjunctive, and the imperative. The subjunctive is as simple as in English, being formed from the indicative by mi-ke-re (if) placed at the begimuing of the sentence.
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Inmboldt,* in speaking of the langnage of Venezuela, says: "The Chayma and Tamanoe verbs have an enormous complication of tenses," and alds that "this multiplicity eharacterizes the rudest American langhages." It certainly does not apply to the Costa Ricin family, which is equally remarkable for the simplieity of its inflections. The present tense does duty for the present participle, and the perfect for the perfect participle; besides which we have the past and but a single future. There is no variation for number or person.

The anxiliaries used are not constant. For the imperative, $j u$ is sometimes prefixed, and miu is often the sign of the future. It is generally a prefix, but in $\begin{aligned} \text {-huce-nce, to fall, it is added to the end of the word. Etso }\end{aligned}$ (from etso-si, to be,) is the sign of the present tense in put-yu, to paint.

The following examples will give a better idea of the coujugations than a lengthy explanation. They were selected from a large number, and have been verified with as much care as the difficulties of the case would admit. I believe they may be safely trusted, inasmuch as they are words that I have heard in constant use for over two years, and not trusting to categorical information, have watched their habitual use in conversation. The first example, $\check{\imath}-m i^{\prime}-c$, is the most variable verb in the language. The forms given in each tense are usable interchangeably. It is equally correct to say, "je mit-lat," or, "je mi-at'-ku," I go. The past re, and ra'-re, are used everywhere except by a few people on the Coen River, where the more r: gular form, mi- $a^{\prime}-n a$, is used.

## Conjugations.

## To go.

Inf. 1 -mi' - a.
Ind. Pres., $\left\{\begin{array}{l}\text { mi-at'}-\mathrm{ka}, \\ \mathrm{mit}^{\prime}-\mathrm{ka},\end{array}\right\}$ used interchangeably.
Past, $\left\{\begin{array}{l}\text { re, } \\ \mathrm{ra} \mathrm{a}^{\prime} \mathrm{re},\end{array}\right\} \begin{aligned} & \text { from the verb, } r a^{\prime} \text {-tski } ; \\ & \text { the forms ordinarily used. }\end{aligned}$ mi-a'-na; used only on the Coen River.
Perf., mi-cho'.
Fut., $\left\{\begin{array}{l}\mathrm{mi}^{\prime}-\mathrm{a}, \text { affirmative. } \\ \text { (ke) } \mathrm{mi}^{\prime}-\mathrm{na}, \text { negative (ze, not.) }\end{array}\right.$
Imperative, ju. When in combination with an object expressed; be JU $i$ tu, "thou go shoot." This is the almost universal auxiliary sign of the imperative mood.
ju-shka, ju, as above; shFa ( $s 7 \hbar u$ ), to walk. mi'shka, confined to the first person plural. It means, "let us go," or, "come," and can be used as an auxiliary to almost all the other verbs; mi-shka du tu, "let us go birds shoot."

[^1]To burn.
Inf. í-nyor'ka.
Ind. Pres., ĭ-nyor-ket'-ke.
Past, ĭ-nyor-no'-ka.
Perf., ǐ-nyor-no'-wa.
Fut., ǐ-nyor-wa'-ne-ka.
To cook.
Inf. $̆$-lu'.
Ind. Pres., ǐ-luk'.
Past, ī-li'-na.
Perf., Ǐ-let'-ke.
Fut., ǐ-lu'.
Imper. ĭ-luk'.
To speak.
Inf. $\mathfrak{1}$-shlıtu'.
Ind. Pres., 1̆-s̆htuk'.
Past, ǐ-shhte'.
Perf., Ĭ-s̆htet'-ke.
Fut., Ǐ-šhte'.
Imper. $\quad$-shhtuk'.
To walk.
Inf. $\check{1}$-shku'.
Ind. Pres., ĭ-shkuk'.
Past, ĭ-shke ${ }^{\prime}$.
Perf., í-shket'-ke.
Fut., ĭ-shku'.
Imper. shku'-ta, walk to (come).
ju'-shka, walk from (go).
To this verb we must add the following irregular forms: shkat'-ke, to walk ahead; its derivative, $i t-k a t^{\prime}-k e$, has gone ahead, and $m i^{\prime}-s h l i a$, for which see the note to the first verb, $\bar{\imath}$-mia.

To shoot, to chop.

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Inf. \(\check{\text { In-tu }}\) '.
Ind. Pres., ǐ-tuk'.
    Past, Ǐ-te'-na.
    Perf., \(\quad\)-tet'-ke.
    Fut., (mia) ǐ-tu'.
Imper. (ju) ǐ-tu'.
                    To paint.
Inf. pat'-yu.
Ind. Pres., (etso) pat-yuk'; (etso, to be).
    Past, pat-ye'.
    Perf., pat-yet'-ke.
    Fut., pat-ye'-ke.
Imper. pat-yuk'.
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To eat.

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Inf. ǐ-kŭ-tn'.
Ind. Pres., ǐ-kin-tet'-ke.
    Past, ǐ-kǔ-te'.
    Perf. ǐ-kŭl-te'-wa.
    Fut., il-kil-te'.
Imper. ĭ-kŭ-tuk'.
To start.
Inf. Ĭ-bě-te'
Ind. Pres., ï-bĕ-te'.
    Past, ǐ-bë-te'.
    Perf., ï-bĕ-tet'-ke.
    Fut., ǐ-bĕ-te'.
Imper. ǐ-bĕ-ti'-muk. Only used in a negative
                                    sense, "ke bě-ti'-nuk,", do not start (or
                                    move); i. e., "keep perfectly quiet."
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                                    To roast.
    Inf. $̆$ i-ku-ke'.
Ind. Pres., i.ku-kuk'.
Past, ǐ-ku-tı'-na.
Perf., ǐ-ku-ket'-ke.
Fut., 1 1-ku-ke'.
Imper. ĭ-ku-kuk'.
To exchange.
Inf. Ĭ-mne'-we.
Ind. Pres., ĭ-mne-wet'-ke.
Past, ǐmne'-mig.
Fut., (mi'-a) mne'-we.
Imper. $\quad$ ímue'-ung.
To sleep.
Inf. kĭ-puk.
Ind. Pres., kĭ-pa-wet'-ke.
Past, kĭ-pe'.
Perf., $\left\{\begin{array}{l}\text { kī-pug'-wo. }\end{array}\right.$
Per., (kǐ-pet'-ke; third person plural only.
Fut., kī-put'-ke.
Imper. (ju) kǐ-put'ke.
To lose (inanimate objects).
Inf. Ĭ-cho'.va.

There are no changes in this verb, except that mia is added to the Ind., Fut. There is no Imperative.

```
    To lose (animate objects).
Inf. Ĭ-cho-rai'.
Ind. Pres., Ĭ-cho-rai'.
    Past, Ǐ-cho-rai'.
    Perf., Ĭ-cho-rat'-ke.
    Fut., Ĭ-cho-ret'-ke.
        To listen.
Inf. Ĭ-šhtsu'.
Ind. Pres., Ĭ-shtsuk'.
    Past, Ĭ-shtse'.
    Perf., Ĭ-s̆htset'-ke.
    Fut., ǐ-shhtse'.
Imper. Ĭ-shhtsuk'.
    To count.
Inf. Ǐ-shtauug'.
Ind. Pres., l̆-shtaunk'.
    Past, Ǐ-shta'-we.
    Perf., ĭ-shtaung'.
    Fut., (mia) shta'-we.
Imper. ...-shtaunk.
                To fall.
Inf. l̆-haw'-na.
Ind. Pres., l̆-haw'-nuk.
    Past, Ĭ-haw'-ne.
    Perf., l̆-haw-net'-ke.
    Fut., Ǐ-haw'-na (mi), (mia).
            To push.
    Inf. pat'-ku.
    Ind. Pres., pat'-kuk.
    Past, pat'ke.
    Perf., pat-ket'-ke.
    Fut., pat'-ke.
Imper. pat'-kuk.
                                    To feed.
                                    jě-ku' has the same terminations as pat'.
                                    [ku.
                                    To want.
Inf. \grave{-ki-a}\mp@subsup{}{}{\prime}-na.
Ind. Pres., {\begin{array}{l}{\mathrm{ l̆-ki-a'-na. }}\\{\textrm{l}-\textrm{ki}-\mp@subsup{\textrm{et}}{}{\prime}-ke,}\end{array}\mathrm{ third person only; when}
                                    "he roants you."
    Past, Ǐ-ki-e'.
    Fut., Iॅ-ki-e'.
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The place of the aecent is strietly determined by the structure and etymology of compound words. In words composed of a noun and an adjective, the accent is placed on the adjective; thas $d i+k i-b i^{\prime}$, large water, $i$. e., river ; chi-ku $+t y n g^{\prime}$, lurge substance, $i$. e., stout; su- $20 i^{\prime}+j u k$, cotton substance or raw cottom. This applies equally to the emphasis in a similar phase like pĕ hoo'-rí, other, or different people. When the word is composed of an aljective or adverb, with a verb, the accent goes
 composed of a nom and a verb, it follows the same rule; thus, $b \bar{e}-t a+o n^{\prime}$-te, the remainder (i.e., the end stays or remains). When eomposed of two noms, one in an adjective sense, the aceent is on the qualifying noun, like $m o^{\prime}+200$, navel ; clu' $+h u$, nest or bird-house ; tsu $u^{\prime}+d i-0$, milk or teat-juice; tsu' +200 , a woman's breast ; tsu-200' $+b$ é- $t u$, nipple. This rule is almost universal in Bri-bri, and obtains generally in the other languages ; the greatest number of exceptions being in Terraba.

In the simplest sentenee, the nominative begins, followed by the object, and the verb comes last. When a noun is qualified by an adjective, the adjective follows the noun. In the same way the adverb follows the verb; ald the verb closes the sentence, unless it is accompanied by an adverb, or adverbial phrase. In easo there are, in addition to the nominative, olject, and verb, another noun, governed by a preposition, these latter elose the sentence. I strike you; je be pu, I thou strike. I strike you hard ; je be pu dĕrere. The strong man chops the wood well; wewi dĕrere kar tu boi. Will you go with me?; be mia je-ta, thou go I with. Ta, zote, and 200 ing (see notes on the nouns) are always added as suffixes to the nouns or pronouns which they qualify, and form a sort of ablative ease. But where wen! is used in the sense of "where is," it begins the sentence. Whose hat (is this)? ji sombreno? Mine ; je'-chu. How many people are there in your house? pe bil tsosi be hu-voenig? people how many are thy house-where? Where is he? wenf ye 'tso? where he is? He remained in the middle of the road; ye onte nyoro shong, he remained road middle. Give me a chair (or beneh), krŭ-zo $a^{\prime}$ mu'-nya; chair give me. Give him, mu'-ye. Reach me my hat; je sombreno be ur'a reska, my hat thou hand reach. Heat the water ; di ba-ung, water make hot. The water is hot; di ba ba-na, water warm heated (is). Put out the fire; bowo voo-tu', fire extinguish (or close). The fire went out; bovoo $\overline{\mathrm{z}}$-to' -201 . Shutthe door; hu shlku wo-tu', house door shut. Unfasten the door ; tuu šlku wo-jet'-sa. Open the door ; hu s̆hku voo-hu'-vocu. Where is my knife? weinge tabe? where my knife (et so, to be, understood)? Your knife is there; be tabe tsosi diyu, thy knife is there. Give mo my knife ; je tabe munya, my knife give. My knife is very sharp; je tabe akata boi, my knife toothed good. Go shoot a bird, or go shoot birds; be ju du tue, thou go bird shoot. What with? i-voa? With a gun ; mokkur woa, gun with. What kind of a gun? mokliur is? gun what kind? Our country gun (blowgnn) ; sa konske moklour, own country gun. There are no balls (the clay balls or pellets) ; mokitur wo ke ku, gun round (things) no more
(are underst rod'. Why do you not make some? i kuenke be ke mokkur wo juzoo? why thou not gun round (things) make? There is no clay (or material) ; mokkur wochika ke ku, guu round (things) material no more. Is your gun a good one? be mokkur boi? thou (thy) gun good? Does it shoot well? ìtu boi? shoot well (or good)? Good morning ; be shke' $\quad$ ? ? thou art awake, or arisen (literally, straightened up). Reply; je (I) shke'na. Be ratski; thou hast arrived (salutation on a person entering a house). Je ratski, I have arrived. How are you? is be 'tso? how thou (et-so'si ) art? I am well ; je 'tso boi. Where did you come from? weng be bete'? where thou start? Who went with-? ji re -ta? who went-- with? I did not see; ke je wai suna, not I (wai idiom) saw. I do not know; ke je woai uphchen. This woai occurs nowhere except in these two instances. What did you go for? iub be re? why thon went? I went to call my people; je re je worloipa ikiu, I went I (my) people to call. Are they coming? yepa ratski? they come (or arrive? No; I think they have gone away; au; je hĕnbeku ye micho, No; I think they have gone. Let us go too ; mishka hekepi, let us go alike. Where is --? weng-? He has gone ahead; ye 't-katke, he has walked ahead (see note on $i$-shku, in conjugation). Put on jour clothes; be $s a-w i^{\prime} i-u$, thou clothing (cotton) put into.

## Section II.-miscellaneous notes.

Althongh the tradition exists that the people of Terraba are a comparatively late emigration from the region of the Tiribis, and although the tradition is sustained by the general resemblances of language, and by the fact that the Brunkas (or Borucas), evidently older occupants of the soil, are crowded into a corner like the Celtic tribos of Europe; yet there are marked differences between the idioms spoken in Tiribi and in Terraba. The Dialects of Southern Costa Rica can be divided into three groups: First, the Bri-bri and the Cabecar; second, the Tiribi and Terraba; and lastly, the Brunka. The three divisions possess many roots and even entire words in common, and may well be compared in their resemblan ses and differences with the Latin languages. The first group is strongly marked by the short $i$ before nearly all verbs and by a generally more musical sound; while the second is harsh, iu consequence of the frequent repetition of sound of $z$. The Cabecar $i$ before the verb is not so persistent as in Bri-bri, but is more strongly pronounced, approaching more nearly the ordinary Latin or Spanish $i$. The terminations ung and ong are as marked as the sign of the verb, in the second group, as $\bar{\imath}$ is in the first. The $z$ which almost invariably accompanies this termination, is rarely a part of the last syllable, but is usually sounded at the end of the penultimate, unless when abbreviated into $z u$ or $z o$.

A gradual process of change is clearly discernible in these languages. As yet the Bri-bri and Tiribi have been but little affected. But the Cabecar of Coen is absorbing many Bri-bri words because the people of the Coen, although they use their local dialect among themselves, all speak Bri-
brialso, while the latter, as the conquerors, despise the Cabecars and never attempt to learn their langutge. The Cabcears of Estrella rarely speak Bri-bri, but nearly all understand it, as well is Spanish and some speak Euglish, and words of both these latter languages are gradually being adopted. The Tiribis are too isolated to acquire many foreign words; but their near relatives the half-civilized people of Terraba as well as the neighbors of these latter, the Borucas, are rapidly acyuiring Spauish at the expense of the corresponding words of their own language. In a party of five Borucas, there was not one who could count except in Spanish; and oue of my Terraba friends could remember no word for girl, except muchucha (Spanish), until I suggested (supported by analogy) the word $2 c a-r e e^{\prime}$ (woman), when he remembered that he had heard some of the old people use ra-vec-re'! In like manner, he persisted in giving me the Spanish, "lucero" for star, besides many other words.

Many roots run through the entire group of languages unchanged, or with changes so trifling that they are not worthy of note. Again sometimes the root varies while the ruling idea is the same. An illustration of this last case is the following: In Bri-bri, to forget is hën-icho; to remember is ke hĕn-i-cho, from ke not, hĕn the liver, and $i$-cho to lose. To think is also hĕn be-ku (probably from be ket-ke, ready). Liver in Tiribi is 20 , in Terraba woo, and in Cabecar her; while to think is, in Tiribi 200 tnizung, in Terraba woi-du, and in Cabecar her-wik. The acts of thought, memory, ctc., have been attributed to the liver, with about as good reason as we yet place the seat of sentiment in the heart.

In Bri-bri, to lie down is tu is, to throw down ; imperative me (yourself) tu is. In Terraba tush ko (down) is used in the same manner; fa tush ko, thou sit down, and $f a$ bu tush-ko, lie down ( $b u$ ) long.

Changes of roots are illustrated by the following. In Bri-bri, $7 i=-p u i_{i}^{\prime}$ is to sleep, and a hammock is $k i z-p u^{\prime}$. In Cabecar a bed is kiù-pu'-gru, in Tiribi and Terraba it is $b u^{\prime}-k r^{\prime} u$; and in Brunka kap is to sleep.

In Brunka a ghost is $i$-wik, and a sladow is $k u$-wik', and a devil or evil
 bru. In Cabecar, a shadow is wig'-ra, while in Tiribi it is ya'-gro, and in Bri-bri, si-ri-u'-gur, thus connecting the word in Bri-bri for ghost, or departed spirit, with that for shadow by means of the allied idioms, although without the intermediate changes of the root, it would not have been demonstrable.

It is evident that the Cabecar mog-i', straight, and the Bri-bri maw'-lii, true, are identical. Although the Bri-bri word $s i^{\prime}-g u a$, foreigner, has been replaced in the other languages, by other words, it remains in the Terraba, as a compound, in the name of the banana, bin-sigute, evidently "foreign plaintain," from bing, a plaintain ; because it may have been introduced at a later date than the larger fruit, and when the word sigua was yet in current use.

Again, the idea changes, and with it, words from other roots come in, thus : lightning, in Bri-bri is ar'a wot-nyn, "the thmonder flashes;" the

Tiribi zhgu-ring' and the Terraba zhu-ring', seem to be specific ; but the Cabecar, long-wo-hor'kn is "the atmosphere burns," while the Brunka $j i^{\prime}-$ kira is simply " fire."

Like the two or three cases of imperfect plural in Bri-bri, already mentioned, the Terraba has a single plural word; or rather only an approach, a sort of transitional form. Zhgring is a rib, and zhgring'-ro, the ribs in their collective sense, rather as the bony case of the thorax, than as the several bones.

As stated above, the compound words in the vocabulary of Bri-bri are divided by a + sign between the compouent parts. In the other languages, there are doubtless many that have not been properly separated, because I have not ventured to make theoretical divisions, and have only separated those that were obviously compound. My less perfect acquaintance with them has not warranted me in this step, nor in the probably unnecessary detail of analysis to which I have subjected the language of Bri-bri.

In Terraba the 3d person, singular, pronoun kwe, while not varying for gender or number, has three forms which always appear according to a peculiar condition, thus :

| he, she, (sitting or lying down) | so'-kwe. |
| :--- | :--- |
| "، (standing) | shon'-kwe. |
| " | (going) |

In Brunka, I, thou, he, (or she) and we, ( $a-d \stackrel{e}{e}-b \dot{c}^{\prime}, ~(\delta c .$, ) are used with the termination $d \bar{e}-b i^{\prime}$ whenever they occur alone. When combined with other words in a seutence, the first syllable ouly ( $a, b a, i$, aud $j a$ ) is used. The termination is almost an integral part of the word and must be used when alone. This is the reverse of the termination re in Bri-bri, which is rarely used except in a sentence, and then only for euphony or emphasis, and at the option of the speaker.

## Chapter III.

## vOCABULARY OF the language of the bri-bri indians.

[Note.-In this, and in the accompanying vocabularies, the vowels have the same sounds as in Spanish, unless marked with a special sign ; $\check{e}$ is pronounced as in English met $; \check{\imath}$ as in $p i n ; \breve{u}$ as in mum. $J$ has the sound as in John; ng as in thing; ng like the Freach nasal $n$; šh like ch in the German $i c h ; h$ is aspirated as in English. A few words laving unusual vowel sounds are noted separately, not to add unnecessary complication of conventional signs; like sí-aí, blue and ku-ku', ear.

Compound words are written with $a+$ sign between the component parts. Accent is of great importance, the change in position of the ac-
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cent sometimes changing the sense of the word entirely like $\bar{i}$-juk to drink, $i^{\prime}$-juk eartl, suil.]


| alive | tse'ka | See awake. |
| :---: | :---: | :---: |
| all | $\left\{\begin{array}{l} \text { seng } \\ \text { o-rj-te-ne } \end{array}\right.$ |  |
| alligator | to-rok' |  |
| alone | $\left\{\begin{array}{l} e^{\prime}-\mathrm{kur} \\ \mathrm{e}^{\prime} \mathrm{mi} \end{array}\right.$ | $E$ (et) one. Used in the sense of only. |
| alongside <br> already | i-yaw'-mik je-bak' |  |
| also <br> always | i-să-ka' <br> shu-ar'-i-a | See again. |
| angle | $\left\{\begin{array}{l} \text { bě-ta' } \\ \text { si-chi'-a } \end{array}\right.$ | $\left\{\begin{array}{l} \text { A print; the angle of a } \\ \text { surface or the corner } \\ \text { angle of a solid. } \end{array}\right.$ <br> The angle of a prism ; see square. |
| angry | o-ru'-na |  |
| ankle | $o-1 a-b o^{\prime}$ |  |
| ant, | $\begin{aligned} & \operatorname{ts} a^{\prime}+w a k \\ & \left\{u-l^{\prime} i^{\prime}\right. \end{aligned}$ | Wrak, people, tribe. <br> Myrmecophaga jubata. |
| ant-eater | $\left\{\begin{array}{l}  \\ \mathrm{e}^{\prime}+\mathrm{u} \cdot \mathrm{ri} \end{array}\right.$ | $\left\{\begin{array}{l} \text { Tamanduce } 4 \text { dactyla; te, } \\ \text { a forest clearing; from } \\ \text { its being often found } \\ \text { in such places. } \end{array}\right.$ |

to arise $\check{\mathrm{I}}$ - $\mathrm{ku} \mathrm{l}^{\prime}-\mathrm{ku}$

| arm | $\left\{\begin{array}{l}\text { u-ra' } \\ \text { u-ra }+ \text { krong }{ }^{\prime}\end{array}\right.$ | Upper arm |
| :---: | :---: | :---: |
|  | (u-ra + nya'-we | $\left\{\begin{array}{l} \text { Fore-arm, nya'-wee, belly; } \\ \text { see calf of leg. } \end{array}\right.$ |
|  | $\int \check{1}-\operatorname{shun}^{\prime}-1 \mathrm{u}$ | To arrange, or agree on a question. |
| to arrange | Ĭ-mu boi'-kli-na | $\left\{\begin{array}{l} \text { There is no one word for } \\ \text { to arrange things in } \\ \text { their places; i-mu, to } \\ \text { put, boi'-kli, pretty } \\ \text { good; see introductory } \\ \text { notes. } \end{array}\right.$ |


| to arrive | $\mathrm{ra}^{\prime}$-tski |
| :--- | :--- |
| arrow | ka'-but |


| ashes | mu-nu' + chi-ka |
| :---: | :---: |
| to ask | 1.cha'-ku |
| aunt | $\mathrm{mi}^{\prime}+\mathrm{a}-1 \mathrm{a}$ |
| awake | tse'-ka |
| to awake | 1-shke'-na |
| away | 1-mi' + bak |

axe
back
small of back
backwards
bad

| bag | tsku' |
| :---: | :---: |
| bald | chu-i' |
| banana | chi-mu' |
| bare | sum ${ }^{\prime}$ - ĕ $^{\prime}$ |
| bark | kar+kwo'-lit |
| basket | S̆hku |
| bat | da-kur ${ }^{\prime}$ |
| to bathe | a-kwok' |
| to be | et-so'-si |
| beach | tsong ${ }^{\prime}+\mathrm{kin}$ |
| bead | $\mathrm{bi}^{\prime}+\mathrm{wo}$ |
| beak of bird | $d u^{\prime}+\mathrm{ka}$ |

$\left\{\begin{array}{r}\mathrm{Of} \\ \\ \end{array}\right.$ Of the various forms of arrows in use, each has Chi-ka, material.
From $\check{\imath}$-chu, to say?
Mi, mother ; la, dimiuutive.
See alive.
Shke, straight.
$\left\{\begin{array}{c}I-m i^{\prime}-a, \text { to go; } b a k\left(j e^{\prime}-\right. \\ b a k) \text { already; already } \\ \text { gone. }\end{array}\right.$
Also shoulder-blade.

Used to express disapproval.
A native net bag.

See naked.
Kar, tree; i-kwo'-lit, skin.

In a place; also to have.
Tsong, sand; kin, region.
$\{B i,(?)$ corrupted from En-
glish bead; voo, round.
$D u$, bird ; Fia, tooth.

| bean | $\mathrm{a}^{\prime}-\mathrm{tu}+$ wo |  |
| :---: | :---: | :---: |
| to bear | $\left\{\begin{array}{l} s u^{\prime}-11 a \\ 1 a^{\prime}-11 a \end{array}\right.$ | To bear young (human). To bear young (inferior animals). |
| beard | ka'-luk |  |
| beast | $\left\{\begin{array}{l}\text { du } \\ \text { bi } \\ \text { bi'-wak }\end{array}\right.$ | $\left\{\begin{array}{l} \text { Bi, the devil, or anything } \\ \text { mysterious; rak, tribe. } \\ \text { There is no word exact- } \\ \text { ly equivalent to ours } \\ \text { for "beast." Each ani- } \\ \text { mal (as well as plant', } \\ \text { las it specific name, } \\ \text { and du, properly be- } \\ \text { longing to birds, is usu- } \\ \text { ally applied if the } \\ \text { species is unknown ; bi- } \\ \text { wouk is only used in a } \\ \text { collective sense. } \end{array}\right.$ |
| to beat | $\left\{\begin{array}{l} \text { ǐ-pu' } \\ \text { ī-bu-1, } a^{\prime}-1 \text { ung } \end{array}\right.$ | To strike, to whip. To beat, as on a drum. |
| bed | a-konğ' |  |
| bee | $\left\{\begin{array}{l} \text { bur } \\ \text { bur }^{\prime}+\text { wak } \end{array}\right.$ | Wak, tribe. |
| before | $\begin{gathered} \text { keng'+we } \\ \int_{\text {diu' }}+\text { shent } \end{gathered}$ | We, where. Behind in the abstract; see in front. |
| behind | bĕ-ta' +ka | $\left\{\begin{array}{l} \text { At the tail of a line; } \\ \text { immediately behind; } \\ b \check{c}-t a^{\prime}, \text { a point. } \end{array}\right.$ |
| belly | nya'+we | Nya, see dung; ve, where. |
| below | is'+kin | Is, down; kin, region. |
| belt | ki-pam'+wo | Ki-pam, from lii-pur, waist. |
| bench | krŭ-wa' |  |
| to bend | $\left\{\begin{array}{l} \text { ĭ-wo+shki'+ung } \\ \text { ĭ-chung' }+ \text { wa } \\ \text { ĭ-ko-kut' }+w a \end{array}\right.$ | Into a ring; shki, a circle. To bend at an angle without breaking. <br> To bend into a curve. |
| bent | ko-kutk' |  |
| better | boi'tna | Boi, good. |
| between | shu+shong' | See middle. |
| beveled | sho-ntk' | Equally applied to a prismatic solid, or to the cutting off the corner of a surface ; see sloping. |


| bird | du |
| :--- | :--- |
| to bite | î-kwe'-wa. |
| bitter | bĭ-chow-bĭ-choi' |


| black | do-ro-roi' | Also very dark blue. |
| :---: | :---: | :---: |
| blade | i-wa' |  |
| blind | wo-ju+be'-ie |  |
| blood | pe |  |
| to blow | $\left\{\begin{array}{l} \text { woi- } \mathrm{ku}^{\prime} \\ \text { be-tsir'-ke } \end{array}\right.$ | With the mouth; kiu the tongue. <br> Si-voanty be-tsir'-ke, "the wind blows." |
| blue | $\left\{\begin{array}{l} \text { si-ai }{ }^{\prime} \\ \text { do-ro-roi } \end{array}\right.$ | Last syllable prolonged. (Black) very dark blue. |
| blunt | $\left\{\begin{array}{l} k e+a-k a^{\prime}+t a \\ k e+b e \check{-t a}+t a \end{array}\right.$ | Ke, not; $a-k a^{\prime}$, tooth; not edged. <br> $K e, ~ n o t ; ~ b \breve{c}-t u^{\prime}$, point ; not pointed. |
| body | wak | Also tribes, race, people. |
| bog | doch'-ka | See mud. |
| boil | squek | A furuncle. |
| to boil | i-tu + wo |  |
| bone | di-cha' |  |
| bones | di-che ${ }^{\prime}$ | For motes on this plural, see introduction. |
| border | iu-ku ${ }^{\prime}$ |  |
| both | et+et | Ete, one. |
| bottle | ko-ku' | See calabash. |
| bow | shkum-me ${ }^{\prime}$ |  |
| boy | kŭ-be ${ }^{\prime}$ |  |
| branch of tree | kar'+u-la | $\begin{aligned} & \text { Kar, tree ; } u-l a(u-r a) \\ & \text { arm. } \end{aligned}$ |
| brave | we'-bra |  |
| bread | i-nya' | See cake. |
| to break | $\{$ 1-pa-na'-na | Hard things, |
| , | l bu-tsa'-na | A string; tsa, a string. |
| breast | be-tsi' |  |
| breast of woman | tsu' + wo | Also teats of lower animals. |
| breath | si-wang | Wind. |
| breech-cloth | ki-par ${ }^{\text {+ }}$ wo | Ki-par, the waist. |
| bright | du-ru'-ru-i |  |
| to bring | ĭ-tsunk ${ }^{\prime}$ | See to carry. |
| broad | sho |  |
| broom | wush' +kru |  |
| brother | yil | Always preceded by a proper name or a pronoun. |
| brother-in-law | ar'-ŭ-wa |  |

lug

> There is no generic word.
> Every prominent species lhas its mame, usnally consisting of an adjective, combined with qouk, tribe.

Fín', tree ; tsi-la-la, little.
Galictis barbatu.
See rump.

Also chocolate.
(Applied to entire calabashes with a small opening, for water bottles.
Cut in half for cups.
Klu, leg; nya'-ice, belly.
To summon, to name.
The accented a like $a$ in far.
A walking cane, or' stick.
River cane.
Sugar cane; see sugar.
Chui-Ticl, material.
Me, yourself; see future tense to fall.
Also a spring.
0 very long.

A light beer made from maize.
(Tsi') la-la, little.
A-⿸a', teeth.
Also to shoot.


| corpse | $a]^{\prime}-\mathrm{ma}$ |
| :---: | :---: |
| cotton | su-wi't juk |
| to eongrl (v) cough (s) | ito |

cousin
to cover
coward
crab
crazy
crooked
cup
to cut
cylindrical
damp
to dance
dark
$\left\{\begin{array}{l}p a+b c ̌-k u^{\prime} \\ \text { Ǐ-s̆hku+pa+bĕ-ku' }\end{array}\right.$
sul-wa + na
ju-wi'
i-1i'-na
ki-tunk'
kyong
$\{$ ľ-nyu'
lı-tu'
$a-r a-b o^{\prime}+w a$
mong' - mok
$\mathrm{kln}+\mathrm{pt} \mathrm{n}$
tset-tsei ${ }^{\prime}$

Can this be Spanish, ulmu, soul".
Juk, materian.
The resemblance to the Sp. tos, a courgl, is probably onlya coinfidence.
Frong is used in inmumerable compounds. Not only is it used in the same manner in all the allied dialects, but in Brunka, it oceurs as liak, the sun. Nearly all worls relating to comstry, air, day, atmosphere, sky, earth, in short, the general physical surroundings, contain it as an integral part, fong + sku is the country inhabited by any people.
Cousins are called "brother" and "sister," even if several degrees removed.
$\int P a$, skin, covering, surface; $\check{z}$-b $\check{e}-l u$, see to pack; to cover a solid object.
To cover a vessel to shut a book.
See afraid.

Te li'-na-lia, "he is crazed."

See calabash.
Without chopping.
With chopping.

Flu, the foot; ptu, the sole.
Also any dark color, especially dark brown.

| darkness | kong + tu-i'-na | $\left\{\begin{array}{l} \text { "The day darkens" } \\ \text { (either from clouds or } \\ \text { towards night). } \end{array}\right.$ |
| :---: | :---: | :---: |
| daughter | $j e+l a+r^{\prime}-\mathrm{kur}$ | $\left\{\begin{array}{l} J e, \text { my, la }(l a-l a) \text { son } ; \\ \check{e}-r a^{\prime}-l u r^{\prime}, \text { woman. For } \\ \text { note on } j e, \text { see son. } \end{array}\right.$ |
| daughter-in-law | $j a k^{\prime}+$ ĕ-ra | See father-in-law. $\check{e}-r^{r} a$, ( $\stackrel{e}{-r} a^{\prime}-k u r$.) |
|  | $\int n y i^{\prime}+w e$ | Contradistinguished from night. |
| day | kong | $\left\{\begin{array}{l} \text { Used in all other comnec- } \\ \text { tions; as kong-se, a cold } \\ \text { day. } \end{array}\right.$ |
| to-day | in'-ya |  |
| to-morrow | bu-le' |  |
| $\begin{aligned} & \text { day after. to-mor- } \\ & \text { row } \end{aligned}$ | bui' +ki | This $k i$, is apparently " more." |
| 3d day future | m-nyar ${ }^{\text {c }}+\mathrm{ki}$ | M-nyat, three。 |
| $4 \mathrm{th}_{3}$ ، 6 | keng ${ }^{\prime}+\mathrm{ki}$ | Treil, four. |
| 5th " " | skang ${ }^{\prime}+\mathrm{ki}$ | Shang, five. |
| 6th "6 6 | ter $^{\prime}-\mathrm{i}+\mathrm{ki}$ | Terlb, six. |
| 7th 66 6 | ku'-gi+ki | Ku'-gl, seven. |
| 8th " " | pai' +ki | $P a^{\prime} g l$, eight. |
| 9 9th " " | kong + su-ni'-to | $S u$-ni'-to, nine. |
| 10th "6 6 | kong + d-bob ${ }^{\prime}$ | D-bob, ten. |
| 11th " " yesterday | $\begin{aligned} & \mathrm{kong}+\mathrm{d}-\mathrm{bob}+\mathrm{ki}+\mathrm{et}^{\prime} \\ & \mathrm{chi}+\mathrm{ki} \mathrm{i}^{\prime} \end{aligned}$ | See eleven. |
| day before yesterday | $\mathrm{bo}^{\prime}+\mathrm{kli}$ | Bo (but), two. |
| 3 d day past | m-nyon' + li |  |
| 4 th ${ }^{\text {6 }}$ 6 | $\mathbf{k a}{ }^{\prime}+\mathrm{ri}$ |  |
| 5 th "6 6 | skan'+i |  |
| dead | i-da-wo ${ }^{\prime}+\mathrm{wa}$ | See to die. |
| debt | $m u^{\prime}+\mathrm{i}$ | See money. |
| deep | $\left\{\begin{array}{l}\text { i-shu }+ \text { tyng } \\ \\ \text { (di) }+ \text { tying }\end{array}\right.$ | I-slıung, inside ; ty $\hat{x y}$, large; large inside. Deep water. |
|  | \{wo+kŭ-chutk' | $\left\{\begin{array}{l} \text { Applied to a deep vessel, } \\ \text { when the mouth is con- } \\ \text { tracted. } \end{array}\right.$ |
|  | wotbli | Thesame, witli the mouth not contracted. |
| deer | $\left\{\right.$ su-ri' ${ }^{\prime}$ | Large species. |
|  | (su-ri + ma-ru' | Small species; ma-ru', reddish. |

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| dung | nya |
| :---: | :---: |
| dust | kong' + mo-li |
| eagle | sar'+pung, |
| ear early earth | $k n-k u^{\prime}$ <br> bu-la'-mi <br> i'-juk |
| earthquake | i |
| to eat | 1̌-kŭ-tu' |
| echo <br> eddy <br> edge | $\begin{aligned} & \text { i-o-ro'-te-nu } \\ & \text { ir-a-me } \\ & \text { iu-ku } \end{aligned}$ |
| egg | $\mathrm{du}^{\prime}+\mathrm{ra}$ |
| elastic | $\left\{\begin{array}{l} \text { ki-tsmng }{ }^{\prime} \text {-ki-tsung } \\ \text { kras }{ }^{\prime}-k r a s \end{array}\right.$ |
| elbow empty | $\begin{aligned} & \left\{\begin{array}{l} \text { u-ra }+k u-c h i n g g^{\prime}+w o \\ \text { u-ra+knyi' }+ \text { nyuk } \end{array}\right. \\ & \left\{\begin{array}{l} \text { wu'-ji-ka } \\ \text { wa-ke } \end{array}\right. \end{aligned}$ |
| to empty | $\left\{\begin{array}{l} \text { Ǐ-wu' }-j i-k a \\ \text { ǐ-wa-ke'-ta } \\ 1-t u+t s u n g \end{array}\right.$ |
| end <br> ended | $\begin{aligned} & \text { bĕ-ta' } \\ & \left\{\begin{array}{l} \mathrm{e}^{\prime}-\mathrm{na} \\ \text { o-ro'-ni } \end{array}\right. \end{aligned}$ |
| enough enemy to euvelop | ```wed bo'_ruk Ǐ-bě-ku'-wa``` |
| equal equally equivalent erect | ```nyi'-ke-pi ske shke'-ka``` |

See cake.
(Kong, see note to country; $m o$, cloud; $l i$ is used in two or three connections with objects in, or derived from the atmosphere, like dew, rain, \&c.
Sar, red monkey ; puñg, hawk.
$U$, like the German $\ddot{u}$.
Bu-le', to-morrow?
(Soil). Not $i-j u k^{\prime}$, to drink.

## English e.

This word is never used in the sense of eating a meal; then $j \check{e}-k u u^{\prime}$, to feed, is always used.
( $D u$, bird. In place of "bird," the specific name of the animal is generally given; thus: torok' + ra, alligator egg.
Like rubber.
Like a switch.
"Knee of the arm."
"Heel of the arm."
See naked.

To pour out.
Point.
"It is all gone."
Applied to affairs.

Nyi, together; The'-lee pi alike.

Perpendicular; see straight.
even

## evening

to exchange
to expect
to extinguish
eye
every
face
to faint
to fall
family
far
fast
fat
father
father-in-law
to fear
fear fear
feast
feather
$\mathrm{du}+\mathrm{kwo}$

Nyi, together; šhke, level; in a straight line.
Even in a pile.
Buth of these words mean equal on the elges in a pile, like bricks in a wall, or the cut leaves of a book.
Also late.

## Also to shut.

See all.

## See round.

Si-ccang, wind ; $e^{\prime}-n a$, to . finish.

> Rapid.

Secure, hard.
Fat, grease or oil of any kind.
A fat animal.
Fat person; see stout.
〔Always used with a personal pronoun or the name of the person; je ji, my father ; or with an exclamation, $\alpha h j i$, oh father.
$\int E a$, we. To feast, to dance and to beat drums are ideas so intimately united in the minds of these people, that the same word is generally used indiscriminately for all three.
Du, bird; kwo, see scale, skin, nail, ice.


glad
to go
God
good
to grab
grandfather
grandmother
to grasp
grass

| grasshopper | di'-tsik |
| :---: | :---: |
| gravel | tsong'+wo |
| grease | ki-u' |
| green | tsě-bat'-tsě-ba |
| grief | hed-i-a'ua |
| to grind | ì-woh ${ }^{\prime}$ |
|  | de-tyıg' ${ }^{\prime}+$ eh |
| to grow | ¢ $\mathrm{I}-\operatorname{tar}+\mathrm{an}^{\prime}-0$ |
|  | li-tar + ar ${ }^{\prime}$-ke |
| guatuso | sha-ri' |
| gun | mok'-kur |
|  | \{ konsh'-ko * |
| hair | $\{\mathrm{ko}+\mathrm{juk}$ |
| half | shong' + buts |
| hammock | kĭ-pu ${ }^{\prime}$ |
| hand | u-ra' + shlnwe |


| handle | kut $+a^{\prime}$ |
| :--- | :--- |
| to hang |  |\(\left\{\begin{array}{l}ki-chat+\mathrm{ku} <br>

i-mo+w 0^{\prime}+\mathrm{ka}\end{array}\right.\)
f For notes on this word see introduction, and especially the conjugation.

Also clean, pretty. Emphatic $b o i^{\prime}-h i$.

Je-ke; see old.
\{Chi-ku, material, is here used contrary to the sense explained, (see material) because kong $+j u k$, having the same etymological meaning, is applied to forest.

Tsong, sand.
See fut.
See wet.
See sad, sorry,

## A plant.

\} A person or animal.
Dasyprocta cristata.
Of the head.
Of the body ; juk, material. See leaf.
Shong, see middle, between; but, two.
See to sleep.
See finger; also introductory notes.
Sister ; tabe kuta, knife handle; the sister of the blade!
By tying, like a hammock; ki-cha', a string.
By simply hooking up, without tying; although $i-200^{\prime}-m o$ is a knot.
Gabb.] $5 \bar{j} \pm$
hard dĕ́-re'-re

This word has as many signiffations as its equivalent in English. It applics to substance, strength, rapidity, aurl difficulty.

See to be.

Also she.

Boi, good.

Uny, affix, to make.
Usually used with very: oru-nyets.
Klu, foot; nyuk, butt.
In this place.
In this direction; see there.

Shke, perpendicular.
$B e$-ta, a point ; the point of the country; also a mountain.
Applied to all hills or peaks not covered with forest.

See handle.

Di-che, bones.

Any hole, whether a perforation or a cavity.
Bur, bee; di-o', juice.

See to sleep, and intoductory notes.


| house | bu |
| :---: | :---: |
| how | im'-a |
| to hum | 1̆-bor+a-ru ${ }^{\text {c }}$ |
| humming-bird | bě-tsung' |
| huugry | dě-wo-lue-li'-na |
|  | $\{$ ĭ-je-bu'-rik |
| to hunt | $\left\{\check{1-j u+l u^{\prime}}\right.$ |
| husband | je+wim' |
| hush | sŭ-wangit + bru'-wo |
|  |  |
| I | $\left\{\begin{array}{l}  \\ \mathrm{je}^{\prime}-\mathrm{re} \end{array}\right.$ |

\(\left.$$
\begin{array}{ll}\text { iguana } & \text { bwah } \\
\text { immediately } & \left\{\begin{array}{l}\mathrm{er}^{\prime}+\mathrm{a}-\mathrm{pa} \\
\operatorname{sir}^{\prime}+\mathrm{a}-\mathrm{pa}\end{array}
$$\right. <br>

in \& i-shunig'\end{array}\right\}\)| inclined |
| :--- |

Bor, (bur) bee?

To hunt game.
Ju, auxiliary; to hunt anything lost.
Je, my. See note to son. Sŭ-voang, wind.
$\left\{\begin{array}{l}R e \text { is a sort of emphasis, } \\ \text { added occasionally to all } \\ \text { the personal pronouns } \\ \text { except ye-pa. }\end{array}\right.$

Bru ji, "I do not know who."
(Used only alone, as a reply, while bru takes its place in a sentence, as above.

In the past.
In the future.
See sloping, beveled.
But one syllable is used when in combination with another word, as kong ba, hot day ; when used alone the syllable is repeated.
Shlici-ri-ri, (tslii-ri'-ri) yellow ; this is used in exaggeration, "yellow hot," as we say "red hot," and is often applied to the weather, food, \&uc.
( $\left.B a+i-l i^{\prime}-n a\right) \quad$ "boiling hot," similarly used when one is perspiring freely.
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inside
iron

| iron | a-be |
| :---: | :---: |
| it |  |
| jur | ung |
| jaw | $k a^{\prime}+j \mathrm{n}-\mathrm{a}$ |
| to jerk | Ĭ-kunt'-sa |
| jigger | $\mathrm{ki}^{\prime}+\mathrm{la}$ |
| to join | $n y i^{\prime}+$ wo-ju |
| joint | ki-cha' + wo |


| juice | di-o' |
| :---: | :---: |
| to keep | ī-bru' |
| kidney | hak |
| to kill | I'-da-wo'-wa |
| kind | $\left\{\begin{array}{l} \mathrm{boi}^{\prime}+\mathrm{sen} \\ \text { wak } \end{array}\right.$ |
| knce | kŭ-chi'+wo |
| knife | $\left\{\begin{array}{l} \text { ta-be }{ }^{\prime} \\ \text { ta-be }+1 a \end{array}\right.$ |
| to knock | $1 \mathrm{I}-\mathrm{pa}+\mathrm{pu}$ |
| knot |  |


| juice | di-o' |
| :---: | :---: |
| to keep | 1-bru' |
| kidney | hak |
| to kill | I'-da-wo'-wa |
| kind | $\left\{\begin{array}{l} \text { boi' }+ \text { sen } \\ \text { wak } \end{array}\right.$ |
| knce | kı̆-chi'+wo |
| knife | $\left\{\begin{array}{l} \text { ta-be' } \\ \text { ta-be' }+l a \end{array}\right.$ |
| to knock | $1 \text { 1̆-pa' }+p u$ |
| knot | I-WO' +mo |


| to know | uplı-chen' |
| :--- | :--- |
| lame | mu'-ya |
| language | ŭ-s̆htu' |

ske'
klu+tsing'
ju-ste ${ }^{\prime}+$ chlu $^{2}$
nya' +kc c-bi
aplu-chen'
mu'-ya
u-šhtu'

These two words are applied to the inside of a house; while i-shmig is restricterl to the inside of a vessel, the interior of the borly, of a hollow tree, a box or any other comparatively small space.

I-chu, to say.
Nrya, dung ; see belly; liěbi, swake.
Also knife; anything made of iron : sce pot.

A Fict, tooth.

Nigua; Pulex penetrans; lii, flea; lu diminutive.
Nyi, together; see to muke, to sew.
Ii-cha, a tendon, a string; wo, a lump.
(Auy fluid expressed, like whey from curd; milk from the breast, honey, \&e.

See to die.
Boi, good; in disposition.
Class: see tribe.

See iron.
$L a$, diminutive; a small knife.
I-mu, to str:ike.
Sce to berrt, feast, to dance. Wo, round; mo (i-mao') to tie.

| large | ${ }^{\text {ki-lbi }}$ |
| :---: | :---: |
|  | tyug |
|  | bru'-bru |
|  | (tying' + bru |
| last | bě-te+ka |
| late | tson'-ni |
| to laugh | ma-nyu ${ }^{\prime}$ |
| lazy | jě-ke'-i-a |
| to lead | $u-r a^{\prime}+y u+m i$ |



| to let | on'-si |
| :--- | :--- |
| to lick | $\check{1}-\mathrm{ku}^{\prime}+\mathrm{juk}$ |
| to lie | $\mathrm{kon}{ }^{\prime}$-shu |
| to lie down | $\mathrm{I}-\mathrm{tu}+\mathrm{is}^{\prime}$ |

(Simply large. When applied to a stream ( $d i+$ lic-bi', ) it means river, "large water."
The commonest form; when applied to water it means deep.
Oftenest applied to animals and to domestic utensils.
V Very large; more emphatic than the preceding forms.
$B \mathrm{e}-\mathrm{ta}$, point.
See evening.
$U-r a, \operatorname{arm} ; m i\left(i z-m_{i} i^{\prime}-a\right)$ to go.
Of a plantain, or other large leaf used for wrapper, or for a receptacle for food, ive. The Mosquito word sic, from the same root, means a banana.
Of a tree, in a collective sense; har tree; lio'juk see hair. The idea is the same and the distinction is made by kar, the name of a person, a pronoun, \&uc.
た $u$, tongue; a single leaf. Hu, house.
U-ra, band, (arm).

Really fero; there is no other word.
Imperative ; on'-sitso-si, $\left\{\begin{array}{l}\text { tso-si (et-so-si) to be ; } \\ \text { "l }\end{array}\right.$ "let it alone."
See to suck.
$I$-tu, to throw ; is, down.


| many | tsei |
| :--- | :--- |
| how many, | $\left\{\begin{array}{l}\text { bit } \\ \text { bil }\end{array}\right.$ |
| so many | išh'-ke $_{\text {marsh }}$ |

material

| meadow | sok |  |
| :---: | :---: | :---: |
| measmre | ya-ma-un'-ya |  |
| meat | $\left\{\begin{array}{l} d u^{\prime}+{ }^{\prime} a \\ \text { chi-ka } \end{array}\right.$ | $\}$ See note to flesh. |
| medicine | kŭ-pu'-li |  |
| metal | $n u^{\prime}$-kur | $\left\{\begin{array}{l} \text { Applied derivatively to } \\ \text { money. I have heard } \\ \text { quicksilver called nu- } \\ \text { hur'tdio," metal } \\ \text { juice. } \end{array}\right.$ |
| midday | di' + bĕ-ta | $D i-w o 0$, sun ; bü-ta, point, summit. |
| middle | shu+shong ${ }^{\prime}$ | $\left\{\begin{array}{l} \text { Shu is used in nearly all } \\ \text { words where the width } \\ \text { is a component idea; } \\ \text { see wide, narrou, be- } \\ \text { tween, inside; shong, } \\ \text { see half, between. In } \\ \text { a combination, shong } \\ \text { only is used; thus nyo- } \\ \text { ro'f shong, the middle } \\ \text { of the road. } \end{array}\right.$ |
| midnight | kong + shong ${ }^{\prime}+$ buts | Kiong, see day ; shong' + buts, half. |
| milk | tsu' + di-o | $T s u$, breast ; di-o, juice. |

See muc'?.
Impersonal.
Personal.

See mud, bog,
Any fibrous, or not compact material; as cotton, $s a-\imath 0 i^{\prime}+j u k$; Jeaves of a tree, or hair of the head ko 1 ju\%.
Any homogeneous substance; as si-ru' $+c h i-$ $k a$, cake chocolate; $s u-n i^{\prime}+c h i-k a$, d e e r meat; si-ni' $+c h i-k i a$, caoutchouc. Only one exception to this rule exists, see note to grass.
$\}$ See note to flesh.

Applied derivatively to money. I have heard quicksilver called nulur'f dio,", metal juice.
Di-voo, sun ; bŭ-ta, point, summit.
Shu is used in nearly all words where the width is a component idea; see voide, narrou, between, inside; shong, see half, between. In a combination, shong only is used; thus nyoro'fshong, the middle of the road.

Konig, see day; shong't buts, half.
$T s u$, breast ; di-o, juice.



| needle | 1 kush |  |
| :---: | :---: | :---: |
|  | ( di-kil' | Thorn. |
| negro | tset-tso'+wak | T'set-tse, dark ; rali, race. |
| nest | du' + hu | Du, bird; hu, house. |
| new | $\mathrm{pa}^{\prime}-\mathrm{ni}$ |  |
| night | ně-nye'-wi |  |
| nipple | tsu+wo' + bě-ta | I'su-ıco, breast ; bĕ-ta', point. |
| no | fall | Negation. |
|  | i ke | Not. |
| nobody | $k e^{\prime}+\mathrm{ji}$ | Ke, not; ji, who. |
| noise | lat-lar' |  |
| nuon | $\mathrm{di}^{\prime}+\mathrm{be}$-ta | See midday. |
| nose | ji'-kut |  |
|  | f ke |  |
| not | kam | $\left\{\begin{array}{l} A \text { as in father. Used only } \\ \text { as follows-" kum je } \\ \text { bowo' betse'" (not I fire } \\ \text { prepared). "I have not } \\ \text { kindled the fire." } \end{array}\right.$ |
| nothing | $\left\{\begin{array}{l}k e^{\prime}+\mathrm{ku} \\ \text { shun'-tai }\end{array}\right.$ | $\begin{aligned} & \text { Ke, not; lu, more. } \\ & \left\{\begin{array}{l} \text { Nothing whatever. Only } \\ \text { used for "absolutely } \\ \text { nothing." } \end{array}\right. \end{aligned}$ |
| now | i'-ya | See luere, and to-day. |
| nuchal lump | $\mathrm{ku-li}+$ duk-wo | $\left\{\begin{array}{l} \text { Ku-li, see neck. The en- } \\ \text { larged nuchal ligament } \\ \text { cansed by carrying } \\ \text { heavy loads suspended } \\ \text { from the forehead. } \end{array}\right.$ |
| numerals |  |  |
| 1 | et |  |
| 2 | $\left\{\begin{array}{l}\text { but } \\ \text { bul } \\ \text { bui } \\ \text { bo }\end{array}\right.$ | Impersonal. <br> Personal. Counting days, future. Counting days, past. |
| 3 | $\left\{\begin{array}{l}\text { m-nyat } \\ \text { m-nyal }\end{array}\right.$ m-nyar m-nyon | Impersonal. <br> Personal. <br> Counting days, future. Counting days, past. |
| 4 | $\left\{\begin{array}{l} \text { keng } \\ \text { ka } \end{array}\right.$ | Counting days, future. Counting days, past. |
| 5 | $\left\{\begin{array}{l} \text { skang } \\ \text { skan } \end{array}\right.$ | Counting days, past. |



| (1) ${ }^{\text {a }}$ | \% 01 |
| :---: | :---: |

out
outside
$\}^{\prime} n^{\prime}+$ te $+k i n$

| over | bě-ta'+kin |
| :---: | :---: |
| oyster | shunk'-te |
| to pack | ı-be-ku' |
| package | dli |
| pain | dě-li'-na |
| to paint | pat'yu |
| palm of hand | u-1a ${ }^{\prime}+\mathrm{ptu}$ |
|  | - |
| pantaloons | klı' + yo |
| part | ek'-sin-e |
| to part | i-bra' + tu |
| to pass | ǐ-ru' +mi |
| pasty | i-tu-wo' |


| to pay <br> pebble | pa-tu-en'-ke <br> ak'two |
| :--- | :--- |
| peceary | $\left\{\begin{array}{l}\text { ka'-sir } \\ \text { si-ni }\end{array}\right.$ |
| penis | $\left\{\begin{array}{l}\text { ma-lek } k^{\prime} \\ k e e^{\prime}-b e^{\prime}+\text { wo }\end{array}\right.$ |
| people | $\left\{\begin{array}{l}\text { pe } \\ \text { wak }\end{array}\right.$ |
| wak+i-pa |  |

perhaps
perpendicular
person
petticoat
bru
shke'-ka


Kin, see region. $u$ is proably from lu, house. The expression (literally outside of the honse) is applied to the outside of anything.
See on.

See to drive, to envelop, to cover.

See to uche.

Ptu, palm or sole; see foot.
Flu, leg ; see sliirt.
$I-t u$, to cut.
Mi ( $\left.\bar{i}-m i^{\prime}-a\right)$ to go.
Like dongh or stiff mud; see viscid and fluid.
$A k$, stone ; 100 , round, lnmp.
Dicotyles torquatus.
D. labiatus.

Human ; see tail
1 $\Pi \ddot{c}-b e^{\prime}$, snake : applied to all the lower animals.
As individuals,
As applied to tribe or race.
$\left\{\begin{array}{c}\text { Collective, thus sa vouk-i- } \\ p a, \text { our people; never }\end{array}\right.$ set-vouk, to distinguish from ant (tsa+2octi).
See to ignore.
See straight.
See who ; lic-ji nobody.
Person of consideration, used like sir, in English; probably from lic'-ji-ke old.
The native dress of the women; a cloth tied round the loins and reaching to the knees.


Gabb. $\bar{j} i j$

| to preprare | i-be-ket'-ke |
| :---: | :---: |
| pretty | boi |
| price | town'tske |
| priest | tsu'-gur |
| proof | cla'gı |
| to prove | Ǐ-cha'-gu. |
| to pull | 1-kung. |
| to pull out | 1-shmis' + kung |
| iulse | si-wang' + ki-cha |
| to push | lopat ${ }^{\prime}$-ku |
| to put | i-muk ${ }^{\prime}$ |
| to put into | $\stackrel{1}{1-u^{\prime}}$ |

quarter
quick
rain

| raiubow | kĕ-be' |
| :--- | :--- |
| rat | skwe |
| ravine | kong̣+be-li'-na |
| raw | ha'-ki |
| to reach | $\left\{\begin{array}{l}\text { Ĭ-ru'mi }\end{array}\right.$ |
| Ĭ-re'-ska |  |

red

See roudy.
see good.
See to buy; slie, value, eguivalent.
Läh-tsu, to sing ; a singer.

To straighten ; to spread out.
Si-veang, wind; lii-cha, string.

See to give.
See to pour.
Applied only to the quarters of an animal ; for a fourth part of an in-

- animate object, they only say tak, a piece.

Rapid, sudden, to hurry. Applied to a rapid stream. Very quick.

This word is now in a transition state. Fong+li, tine original form (see note on dust) is still sometimes, though rarely, used, and is equally understood.
Suake.
Also mouse and mole.

In going to a place.
With the hand; always used with $u$-r'a (arm, hand); thus "I cannot reach it" lie je u-ru resla.

To prepare.

Reddish.
Brownish red.
region kin


Kin has a double meaning. It is used thus, Lari kin the region, or district of Lari; dĕ-je kin, the salt region (the sea). Besides it signifies on, or in, a place or direction; is kin, below; bĕ-ta line, on the point or summit of a hill; nyo-ro kin on the road.

Bĕ'-ta, see end, point. Tso (et-so-si) to have, to be. Ke, not; see to forget. To see, to look.

Good.
U-ra, arm ; broa, right, in sense of direction or side only.

See skin, bart.
See shki, round.
$D i$, water ; $k i-b i$, large.
$L a$, diminutive.

Stone.
As a cradle, or a roundbottomed vessel.
See to twist, to turn, to shake.
Hu, house.
Nyuk, rump, butt.
A twisted, or' 'laid'" rope.
A plaited rope.
(A common, ronghly made rope, a bark string, or a vine used in tying: sce vine.

| Gabb.] | \%68 Taug. 20, |  |
| :---: | :---: | :---: |
| rotten |  | See old. |
| rought | a-tem-C ten-e ${ }^{\text {c }}$ |  |
|  | flhki | Circular. |
| round | $\left\{\begin{array}{l} \text { wo } \end{array}\right.$ | $\left\{\begin{array}{l} \text { Used for anything round- } \\ \text { ed, like the face, a sectl, } \\ \text { a lmmp in the flesh, a } \\ \text { rommed hill, the sun, } \\ \text { mom, and in the names } \\ \text { of varions parts of the } \\ \text { borly. } \end{array}\right.$ |
| rump | nyuk | See butt, roots, ricer, mouth. |
| to run | İ-nen-e' |  |
| sacrum | ju'-wo + di-cha | Ju'-uo, small of back; di cha, bone. |
| sad | hed-i-a'-na | See grief, sorry. |
| saliva | wi'-ri |  |
| salt | diĕ-je' |  |
| sand | tsong' + chi-ka | See beach, gravel, material. |
| sap | wu'-li | $\left\{\begin{array}{l} \text { This root, probably de- } \\ \text { rived from some allied } \\ \text { dialeet, is now adopted } \\ \text { into Isthmian Spanish } \\ \text { as "uli," "hule," etc., } \\ \text { for caoutchouc. } \end{array}\right.$ |
| savannah | sok |  |
| to save | 1-bru' |  |
| to say | 1-chu' |  |
| scab | 1 pash' + kwo | Kuo, scale; not $\check{\imath}-p a+s k i v o$ to wash. |
| to scare | sǔ-wa'+ung | See to frighten. |
| scattered | tski'-tski |  |
| scorpion | bi-che' |  |
| to scrape | $\left\{\begin{array}{l} \text { i-a-pa' }+ \text { si-u } \\ \text { ū-kru'u' } \end{array}\right.$ | $\begin{aligned} & \left\{\begin{array}{c} \text { Like to scrape the bark } \\ \text { from a stick; to scale } \\ \text { a fish is } i-k o o^{\prime}+s i-u . \end{array}\right. \\ & \text { To clean a dirty surface. } \end{aligned}$ |
| to scratch | i-bi'-u |  |
| sea | $\left\{\begin{array}{l} \text { cli }+ \text { dě-je } \\ \text { dě-je }+ \text { kin } \end{array}\right.$ | $D i$, water; $d \stackrel{e}{c}-j c^{\prime}$, salt. See region. |
| to search | ı-ju+lu' | See to lurnt, to look for. |
| to see | sueng |  |
| seed | wo' | See rourd. |
| to sell | ıl-me'-lir |  |


| to send | ǐ-pat-ku + mi | I-pat-ku, to push; $i=m i-a$ to go. |
| :---: | :---: | :---: |
| to sew | ǐ-wo +ju +wo | $\left\{\begin{array}{l} \text { Wo, besides romnd, means } \\ \text { in this and similar con- } \\ \text { nections, whole, to- } \\ \text { gether, complete or } \\ \text { closed. See to close; } \\ \text { i-ju-wo, to make, "to } \\ \text { make closed," or "to } \\ \text { make together." } \end{array}\right.$ |
| shadow | si-ri-u'-gur |  |
| to shake | $\left\{\begin{array}{l}\text { i-wo+ti'-il } \\ \text { i-wong }+\mathrm{ju}\end{array}\right.$ | $\left\{\begin{array}{l} \text { A violent motion like } \\ \text { shaking dust out of a } \\ \text { cloth. } \end{array}\right.$ <br> A gentle motion, like leaves in a breeze. |
| shallow | $\left\{\begin{array}{l}\text { i-si' } \\ \text { bu-litk }\end{array}\right.$ | $\begin{aligned} & \left\{\begin{array}{l} \text { Applied to water ; di+si } \\ \text { a shallow stream or } \\ \text { pond. } \end{array}\right. \\ & \text { A shallow vessel, like a } \\ & \text { pan or dish. } \end{aligned}$ |
| sharp | $\left\{\begin{array}{l}\text { a-ka'+ta } \\ \text { bě-ta' }+ \text { ta }\end{array}\right.$ | $\begin{aligned} & \left\{\begin{array}{l} \text { A-ka, tootb, sharp tooth- } \\ \text { ed or edged; like a } \\ \text { knife edge. } \end{array}\right. \\ & \text { Sharp pointed. } \end{aligned}$ |
| to sharpen | $\left\{\begin{array}{l} \text { a-ka' }+ \text { ung } \\ \text { bĕ-ta' }+ \text { ung } \end{array}\right.$ |  |
| she | $\begin{aligned} & \text { ye } \\ & \text { jok'se-ro }^{\text {jok }} \end{aligned}$ | Also tie. <br> Flat univalves; helix, cyclostoma, lielicina, etc. |
| shell | $\left\{\begin{array}{l} \text { pu-li' } \\ \text { su-ri } \\ \text { sa-ra } \mathbf{r a}^{\prime} \end{array}\right.$ | Long univalves ; melania, bulimus, glandina, etc. Donax. Large bivalves. |
| shield | so'gur |  |
| shin |  |  |
| to shine | Li-lu' + gur | Lu, light ; to shine like a fire, to give light. |
| shirt | $\mathrm{pa}^{\prime}+\mathrm{yo}$ | $P a$, skin, covering ; see pantaloons. |
| to shoot | i-tu' ${ }^{\text {d }}$ | To cut, to chop. |

short
shoulder
shoulder blade
shrimp
to shut
sick
side
silence
similar
to sing
sister
sister-in-law
skin

| skull | wo'-ki + dicha |
| :---: | :---: |
| sky | honig' + kut-tur |
| to sleep | kĭ-puk' |
| sleepy | kĭ-pu+wet'-ke |
| sloping | o-utk' |
| sloth | $\left\{\begin{array}{l}\text { sě-nong' } \\ \text { se'ri } \\ \text { di'ra }\end{array}\right.$ |

slow en-ai-en-ai ${ }^{\prime}$
small
small of back
to smell
to smell good
smoke
so'-bri
o
so ${ }^{\prime}$
rilwo i tul ${ }^{\prime}$
( ī-s̆hku+pa-bě-ku'
ki-ri'-na
$\left\{\begin{array}{l}\mathrm{wo}^{\prime}+\mathrm{sul}-\mathrm{li} \\ \mathrm{ul}-\mathrm{wa}^{\prime}\end{array}\right.$
bi'-ně
$\left\{\begin{array}{l}\text { he' } e^{\prime}+k \check{c}-p i \\ n y i^{\prime}+k e-p i \\ \text { di- } \mathbf{u}^{\prime}-\text { si } \\ n y i+\text { šhtsei }{ }^{\prime}\end{array}\right.$
isb-tsn'
kut+ $a^{\prime}$
$\mathrm{bo}^{\prime}+\mathrm{knt}$
$\left\{\begin{array}{l}\text { i-kwo }- \text { lit } \\ \text { pa }\end{array}\right.$
wo ${ }^{\prime}$-ki + dicha
honig' + kut-tŭ
kǐ-puk'
kĭ-pu+wet'-ke
o-ntk'
$\left\{\begin{array}{l}\text { sě-nong' } \\ \text { se' }-\mathrm{rim}^{\prime} \\ \mathrm{di}^{\prime}-\mathrm{ra}\end{array}\right.$
tsi'-la-la
tsing-wo
la
\{ a-mas-a-mas'
( monas-m-nas'-i
slukon-o'

This was explained to me by the person holding his bands but a few inches apart; saying this was hu'-ye; with his hands about a yard apart he said hu'-shi $t$, while any greater length is bi-tsing, long.

See axe.
\} See to close, to cover, to open.

Of the body.
Right or left hand; u-ra, arm.

Alike, also, thus.
Equal, alike.
"Like that."
Exactly alike, iu speaking See priest.

Cuticle, bark, scale, nail, feather, de.
Caticle, surface, or any soft outer envelope.
Wo-lii, head; cti-chn, bone
See note to country.

## See beveled.

Cholocpus Inofimanni.
Arctopithecus custaniceps.
Cyclothurus dorsalis.
See little.

Like flowers and fluids. Like food.

| smooth | $\left\{\begin{array}{l}\text { ji-ji } \\ \text { jis-jis } \\ \text { u-ris-u-ris'-i }\end{array}\right.$ |
| :--- | :--- |
| snail | $\left\{\begin{array}{l}\text { pu-li }{ }^{\prime} \\ \text { jok }{ }^{\prime} \text {-se-ro } \\ \text { ki-pe }\end{array}\right.$ |

snake
kě-bef
to sneeze

so | chi'-na |
| :--- |
| i-nyes |
| he' $^{\prime}-\mathrm{kě}-\mathrm{pi}$ |

soft
soil
sole of foot
solid $\quad \mathrm{me}^{\prime}$-ye
sometimes mi-kle ${ }^{\prime}$
son
je+la
$\left.\begin{array}{ll}\text { son-in-law } & \begin{array}{l}\text { na-wa }{ }^{\prime} \text {-ki-ra }\end{array} \\ \text { soon } & \left\{\begin{array}{l}\text { sir }^{\prime} \text {-a-pa } \\ \text { tsi'-net }\end{array}\right. \\ \text { sore } & \left\{\begin{array}{l}\text { su-me }{ }^{\prime}+\text { wo } \\ \text { ki-nung } \\ \text { led-i-an'-a }\end{array}\right. \\ \text { sorry } & \text { shku-shku }\end{array}\right\}$
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$\left\{\left\{\begin{array}{l}\text { Both syllables equally } \\ \text { accented. Not neces- } \\ \text { sarily polished. }\end{array}\right.\right.$ Polished.
\}See shell
Shell-less species.
A curious coincidence exists in the fact that in the Island of Santo Domingo, where there are no venomous reptiles, a poisonous plant, retaining its native name, is called by the people ki-be'.
"So, or thus, he says."
Alike, or similar; it is also used in the sense of "do it so."
Like cloth.
Like a cushion, or soft bread.
Earth; not $\bar{i}-j u k^{\prime}$, to drink.
Klu, foot; ptu, al so palm of hand.

Je, my ; la, or la-la, from tsi'-la-la little. Father, mother, son, \&c., are always used with either a personal pronoun, or the name of the relative.

See immediately. Near.
Ulcer.
Proud flesh.
See grief, sad.

[^2]

| straight <br> to straighten | shke+we <br> Ĭ-shung' |
| :--- | :--- |
| to strike |  |\(\quad\left\{\begin{array}{l}Ĭ-pu <br>

Ĭ-tu\end{array}\right.\)

| string <br> strong <br> to suck | ki-cha' <br> dě-re'-re |
| :--- | :--- |
| sudden | ľ-ku' + juk |
| sugar | bet $^{\prime}-\mathrm{ku}$ |
|  | $\mathrm{pa}^{\prime}-\mathrm{gl}+$ chi-ka |

summit bĕ-ta ${ }^{\prime}+$ kin
to summon
sun
sure
to swallow
sweat
to sweep
sweet
to swim
to swing
tail

| to take | [̌̌-tsu |
| :---: | :---: |
|  | 1-tsu' + me |
|  | $\left\{\breve{l}_{1-j u}{ }^{\prime}+\right.$ tsu |
|  | [ 1 -tsunk' |
| to talk | I-shlutu |
| tall | tyng' + bru |
| tame | hu'+ru |
| to taugle | ish-chon'-a-ga |
| tapir | na-i' |
| to taste | ĭ-quash'-tse |
|  | $\int_{\text {1̆-krash'-a-na }}$ |
| to tear |  |
|  | İ-schi'-na-na |

To beat.
To strike with the intention of cutting or wounding ; see to chop, to shout, \&c.
$K u$, tongue ; $\bar{i}-j u k^{\prime}$, to drink; also to lick.
Quick.
See sugar cane ; chi-ka, material.
$\left\{\begin{array}{l}B \breve{e}-t a, \text { point; kin region; } \\ \text { the summit of a hill or } \\ \text { road. }\end{array}\right.$ To call.

See true.

See hot.
See broom and to scrape.

Me, yourself (take from me).
$J u$, anxiliary (go and take.
Take it up.
To speak.
See large.
$H u$, house.

Like cloth.
To tear open, like splitting a piece of sugar cane with the hands, or tearing open the skin of an orange.

| teeth | $a-k a^{\prime}$ |
| :---: | :---: |
| temples | $w 0^{\prime}+\mathrm{ki}+\mathrm{cha}$ |
| tender | to'-to |
| tendon | ki-cha' |
| testicles | kyak |
| that | es'-e |
| that (is it) | es'-es |
| then | f $\mathrm{e}^{\prime}$-wa |
|  | \{et'-to |
| there | f di-ya' |
|  | $\left\{\mathrm{di}^{\text {- }} \mathrm{ya}{ }^{\prime}+\mathrm{e}-\mathrm{ku}\right.$ |
| they | $\mathrm{ye}^{\prime}+\mathrm{pa}$ |
| thick | bu-ri'-ri |
| thief | hog'-bru+ru |
| thigh | tu |
| thin | si-bu'-bu-i |
| to think | hěn' + bĕ-ku |
| this | $\left\{i^{\prime}\right.$-sa |
| this | $\{\mathrm{hi}$ |
| thorn | di-ka' |
| thorns | di-ke ${ }^{\prime}$ |
| thour | $\left\{\begin{array}{l} \text { be } \\ \text { be'-re } \end{array}\right.$ |
| thrice | m-nyat+juk |
| throat | bi-do'-nya |
| to throw | $\{$ ĭ-hu'-juk |
| to throw | ( 1 -tu |
| thumb | u-ra +-ska + wong'-wi |
| thunder | a-ra' |
| thus | $\left\{\begin{array}{l}\text { he'-kĕ-pi }\end{array}\right.$ |
| thus | \{i-nyes ${ }^{\prime}$ |
| tick | bur-ir'-i-e |
| to tickle | se-cho'-ne |
| to tie | i-mao' |

> While other tribes have special names for the molars, the Bri-bris call them $a-k a+d i-u^{\prime}-s h e n t$ (back teeth).
> Wo-ki, head ; kĕ-cha, see leg, neck.
> See fragile, weak.
> String.

Apparently Spanish, ese. 6 " eso es.
Also afterwards.
"In that direction ;" see here.
See he.

See to steal.

See forget, remember, and introductory notes.
Not $e^{\prime}-s e$, that.
$\left\{\begin{array}{l}A-k a ? \text { tooth. Deriva- } \\ \text { tively applied to a } \\ \text { needle. }\end{array}\right.$
Plural ; see introductory notes.

Re, see note to I.

See to shoot, to pour, \&c. See finger.

See so.
This is one of several specific names for the same insect.


| to unroll | Ǐ-shuig + tsu |
| :---: | :---: |
| to untie | I-wo ${ }^{\text {c }}$ +tsu |
| until | ǐ-pan'-a |
| to unwind | i-shuing' + tsu |
|  | \{shke |
| 1 р | \{ a-kong |
|  | fa-koing |
| mpon | \{ bě-ta' + kin |
| upper arm | u-ra'+krob |
| upright | shke'+ka |
| to use | ı-wa'-tu |
| valley | kong' ${ }^{\prime}+\mathrm{bli}$ |
| value | ske |
| vein | ki-cha' |
|  | $\int^{\mathrm{o}-\mathrm{ru}^{\prime}-\mathrm{i}}$ |
| very | \{chnk'-li |
|  | (tu-ru'-ru-i |
| vertebra | ko'+wo |

vine
viscid
voice
to vomit
to wag
waist
to wait
to walk
to want
warm
to wash
wasp
water
watery
wax
we
kŭ-nyo'-kŭ-nyo
or ${ }^{\prime}$-ke
cho' + li
i-wo $+\mathrm{tsi}^{\prime}$-tsi
ki-par'
$\left\{\begin{array}{l}\text { 1-kin'+tsu } \\ \text { Ĭ-pan'-a }\end{array}\right.$
ī-shku'
İ-ki-a'-na
ba
1̆-skwo ${ }^{\prime}$
bu-kra'
di
$d i+$ se-re'-re
bur'+nya
sa

See to open, to spread.

See to unroll.
See straight.

See point, under; and summit.
U-ra, arm.
See perpendicular.

See equivalent.
String.
$\}$ See much.
Applied only to very hot water.
¢Tsc, any vine or strip of bark that can be used to tie with; ki-cha, a string.
Kar, wood ; generally, one that cannot be used to tie with.

Like syrup or honey.
I-cho, to lose.
Like a dog's tail.
To wait for anything or person.
To wait until another time.

See to call, to name.
See hot.

Bur, bee ; nya, dung.


Chapter III.
comparative vucabulary of the cabecar, tiribi, and terraba languages
Brun-ka (called by the Spaniards Boruca).
sa-o-ra
kong $^{\prime}$-li
ne-nyi
$e^{\prime}-j e$

| English. | Cabecar of Estrella River. | Cabecar of Coen River.* | Tiribi. | Terraba. | Brun-ka (called by the Spaniards Boruca). |
| :---: | :---: | :---: | :---: | :---: | :---: |
| to ache |  |  |  | ban | sa-o-ra |
| to adhere |  |  |  | to-mok ${ }^{\prime}$ |  |
| afraid <br> afterwards | su-wa'-na | - | ban-kret' | ko-ban-kret ${ }^{\prime}$ dun'-i-ha | kong'-li ne-nyi' |
| again | i-shu'-ne | ska-shu' | roz-0'-bi | o-ro-roi | $\mathrm{e}^{\prime}$-je |
| against |  |  |  | krŭ-boi' |  |
| ahead |  |  | zhug' + ung |  |  |
| to aim |  |  |  | doz'-ung |  |
| air | kong+shan-ka | kong+shung | kok' + zeng | kong-mosh'-ko |  |
| alike |  |  |  | lin-ko-yos'-o-sa | do-she-ri' |
| alive | ksi |  | si | se |  |
| all | be'-na | - | pir ${ }^{\prime}$-kru | tue ${ }^{\prime}$ | o-ge ${ }^{\prime}$ |
| alligator | do-rok ${ }^{\prime}$ |  | ku | - | $\mathrm{ku}^{\prime}$-u |
| alone | $\mathrm{e}^{\prime}$-kra-bu | $\mathrm{e}^{\prime}$-kra-i | tok'-sa | - | i-le-shi' |
| alongside | kot-ke'-mi | - | a-sor-go ${ }^{\prime}$ |  |  |
| also |  |  |  | no'-ma | mo-reng ${ }^{\text {- }}$ li |
| angry |  |  |  | yir'-ke | dre-ha'-lan |
| ankle | wir-in'-a-kru | - - | ton'-kwo | ko-gi-o' |  |
| ant | ksa'+wak | - | sum'-gwo | sou'-gwo | jak |
| auteater (large) | ur-i ${ }^{\prime}$ |  | shu-go ${ }^{\prime}$ |  |  |

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Brun-ka.





Cabecar of Estrella
sa'-sa-ra
i-hue'-na
u-ra'
sri'-ska
u-ka'-wu
muu'-tu
i-cba-gu'
wai'-bu
shě-be
tsi-wor
se-ru-i'
ha-mě'-tu
cbi-mu
wu'-ji-ka
$k a u^{\prime}+k w o$
$k u$
d-kur
bo-ku'
sa-wa-wu
English.噞 any
to arise
arm
arrow
ashes to ask aunt
axe
small of back backwards bad
banan bare
bark (of tree) basket bathe beach bead
beak of bird
(





Brun-ka,
jas-rok
bi-dran'
i-ka'

| Tiribi. | Terraba. |
| :---: | :---: |
| $\begin{aligned} & \text { du-met'+wa } \\ & \text { kor'+ko-wo } \\ & \text { toz'-ung } \\ & \text { wor-bu' } \end{aligned}$ | kwa-zic ${ }^{\prime}$ |
| nok'-a | nok'-o |
| shwong+kin'-go | shwong-king ${ }^{\prime}$ |
| kro'-zhing tek+suz' + ong |  |
|  | ba-mi-on'-so shto-ko'-kra |
| shi |  |
| bau' |  |
| *guk'-sha |  |
|  | pfon-u' |
| pnoz'-ong | pfron'-zo |
|  | o-ru-bu-gu' |
| kwong'-wo |  |
|  | tun-ez'-ung |
| kau | ko |
| yi-guk' | - |
| se-ror' + bo | $\underline{\square}$ |

Cabecar of Coen River.
Cabecar of Estrella
River.
River.
$\mathrm{u}-\mathrm{ka} \mathrm{a}^{\prime}+$ bĕ-ta u-ka'+bĕ-ta
ber $+\mathrm{je}^{\prime}$ kar'+u-ra i-pan-o'-wa her' + bě-ta
tsu ki-par'-wo tsum'-be-te
English. bow
boy
branch (of tree)
to break
breast
breast (of woman)
breech-cloth
bright
to bring
broad
broom
brother
brother-in-law
bug
bundle
to bury
bush
bush dog $\dagger$
butterfy
to buy
cacao
calabash
cane (sugar)
$\operatorname{ser}^{\prime}-\mathrm{a}$
shao-w *nya'-hru
i-tu-bi-u'-wa kar + tsi' $^{\prime}$-lash-tu rob-gu'
kwa tsi-ru'
d-ka'
paslh-tu'






$\dagger$ For the technical names of these animals, see the Bri-bri vocabulary.





 cane (river)
caoutchouc
to carry
cataract
catarrh
to catch
to cheat
cheek
chicha
chief
child
chin
to chop
clean
cloth (cotton)
" (bark)
cloud
coal (of fire)
cold
color
comb
come
to complete
coon
corn (maize)
corpse
cotton
Brun-ka.
kak
tsa-a-ran'
kwi-gri'
kak'ta-ba-ra
cha
sek
bwek
mang-ek'
"
bi-ik'
ki-bi+buk
kos̆ht'-ka




| English. | Cabecar of Estrella River. |
| :---: | :---: |
| cough | to |
| to cough | kor'-har |
| to count | kansh'-ta-wa |
| country* | kong |
| cousin | ta-ra' |
| to cover | i-ki'-tu-wa |
| crab | ju-wi' |
| crazy | ri-na'-ka |
| to cry | mi-o' |
| to cut | i-tu ${ }^{\prime}$ |
| to dance | $\mathrm{b}-\mathrm{klu}+\mathrm{tu}^{\prime}$ |
| dark | stu-1'-na |
| daughter | $\mathrm{ba}^{\prime}+\mathrm{bu}-\mathrm{si}$ |
| day | kan-yi-na' |
| to-day | hir |
| to-morrow | bu-ri'-ri |
| day (after to-morrow) | boi-ki' |
| third day future |  |
| fourth day future |  |
| fifth day future |  |
| yesterday | jĕ-ki |
| day (before yesterday) | bo-ri' |
| dead | dไŭ-wa'-wa |
| deep (water) | di-kru+tyng'-ru |
| deer (large) | mno-dŭ-bi ${ }^{\prime}$ |

范




| do-e's |
| :---: |
| $\begin{aligned} & \mathrm{bi} \\ & \mathrm{mo}^{\prime}+\mathrm{ri}-\mathrm{u} \end{aligned}$ |
| han'-ri i-biu'-ga wo ${ }^{\prime}$-mo $\mathbf{i}^{\prime}$-shku b-tsat-ku' ha-wa' |
| $\begin{aligned} & \mathrm{i}-\mathrm{ju}^{\prime} \\ & \mathrm{i}-\mathrm{wo}{ }^{\prime}+\mathrm{riu} \\ & \text { sŭ-bak } \\ & \text { sí}^{\prime}-\mathrm{na} \end{aligned}$ |
| $\begin{aligned} & \mathrm{sar}^{\prime}+\mathrm{po} \\ & \text { zgo-ku } \end{aligned}$ |
| $\begin{aligned} & \text { hi'-zhuk } \\ & \text { i } \\ & \text { jě-ka'-gri } \end{aligned}$ |
| $\begin{aligned} & \text { di+ha-ra-m } \\ & \text { i-si'ta } \\ & \text { mĕ-ne' } \\ & \text { ll-ra }+o^{\prime} \text {-gu- } \end{aligned}$ |

药


Cabecar of Coen River.
Cabecar of Coen River.

111111






* Same distinction of age as in Bri-bri
first
 な ® floor flower
fly fog 8
0
3
0
0
0
3
$3 x$
Brun-ka.
si'-bŭh
mo-reng'-ri

为


Oabecar of Coen River.

|| | | | | | | | | | | | | $\mid$


to gnaw
to go
God
good
grandfather grandmother grass to grind to grow 크컈̃ "' of body to hallo hammock hand
back of hand palm of hand handle
to hang
hard
to have
hawk


| \% |  | 年 |  |  | 碄 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |




he
head
head of tree
to hear
heart
heat
to help
here
high
hill
to hold
hollow
honey
horn
house
how
husband
hunger
I
idle
iguana
inside
intestine
iron
jar
jaw
jigger
juice
Brun-ka.

|  |  |
| :---: | :---: |



|  | 令 | $\begin{aligned} & \text { İ } \\ & \frac{1}{\overline{0}} \\ & \frac{1}{\square} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0 \\ & \frac{1}{0} \end{aligned}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |



| Cabecar of Estrella River. | Cabecar of Coen River. |
| :---: | :---: |
| k-chu'-wu ta-be'-ri+je-ba |  |
|  |  |
|  |  |
| hu-nyer' | che-mi ${ }^{\prime}$ |
| suk-tu' |  |
| kŭ-bi + bri-wi' |  |
| shin'-a-wa |  |
| ka-mas'-kra | tsan'-li |
| m-han-ya' |  |
| bi-ki |  |
| kar+gu' |  |
| sik |  |
| j-kai'-bŭ |  |
| shurre ${ }^{\prime}$ |  |
| kru+kra-be |  |
| ash'-иa |  |
| pei'-te |  |
| shpat'-ke |  |
| b-kan-ju'-wa |  |
| m-he-bĕ-kru-wa |  |
| i-kush'-tu-gru |  |
| 1̆-bĕ-tsu ${ }^{\prime}$-kn |  |
| kong+wo +hor'-kn |  |

English.
to lift lightning
范
 i-u-ran
ish'-ta
kag+is̆h-ta
tur-i-ka




| $\mathrm{ko}^{\prime}$-kwu |  |
| :---: | :---: |
|  | i-ken-su ${ }^{\prime}$ |
| tsi'-ně-kra |  |
| ber |  |
| kar-kwe' |  |
| sǔ-wa' |  |
| i-kuk ${ }^{\prime}+$ tu-wa |  |
| i-kit'-sen-a |  |
| kung |  |
| wo-wut-ser-e ${ }^{\prime}$ jo |  |
|  |  |
| kwa+si-an'-e |  |
| kwa+mat'-ka d-chun'-ya |  |
|  |  |
| i-jo-wŭ' |  |
| hě-ji-ji' |  |
| o-ru-i' |  |
| do-ri' ${ }^{\prime}$ |  |
| jě-ku' +gru |  |
| buk'-pu-1i |  |
| i-wo-yü ${ }^{\prime}$ |  |
| shas'-ka |  |
|  | ně-nye ${ }^{\prime}$ |
|  | tsu' + diu |

lips
to listen
little
liver
long
to look
to loose
to lose
louse
lunp
lungs
macaw (green)
$\quad$ 'r $\quad$ red)
maggot
to make
male
man
many
how many?
mark
marsh
meat
medicine
to inend
middle
midnight
milk

| Brun-ka. |
| :---: |
| a-rek ${ }^{\prime}$ |
| nong |
| $u^{\prime}-\mathrm{li}$ |
| ok |
| tě-be ${ }^{\prime}$ |
| srun-sit |
| ba'-bi |
| kwi |
| kas'-a |
| $\mathrm{So}^{\prime}$-ra |
| drig'-i |
| ku-ha'-dri |
| ek-chishı'-ě |
| ing-sa ${ }^{\prime}$ |
| big-at' |
| ka |
| kslins'-ka |


| Tiribi. | Terraba. |
| :---: | :---: |
|  | to-nya' |
| du' ${ }^{\prime}-\mathrm{i}+\mathrm{go}$ | do |
| $\mathrm{bib}^{\prime}+\mathrm{go}$ | bib |
| $\mathrm{yai}^{\prime}+\mathrm{go}$ |  |
|  | $\begin{aligned} & \text { mok+ra-ra' } \\ & \text { mok } \end{aligned}$ |
| $\mathrm{o}^{\prime}$-bi |  |
| kok+shrung ${ }^{\text {- }}$-to | kok+shrung ${ }^{\prime}$ |
| kwis'-king | kwis'-kwing |
| meh |  |
| aiu |  |
| $\mathrm{kam}^{\prime}$-o |  |
|  | $\mathrm{di}+\mathrm{sor}^{\prime}$-go |
| et ${ }^{\prime}-\mathrm{o}$ | yon'-so |
| sak-wo + drung'-yo pro-tir ${ }^{\prime}$-a |  |
| tu'-wa | tu'-wong |
| sosh' -ku |  |
| kring'-dok |  |
| bra |  |
| slıke |  |
| je ${ }^{\prime}$-mĕ | zhe'-mi |
| tu-c-et'-o | i-rong-ke ${ }^{\prime}$ |

Cabecar of Estrella Cabecar of Coen River.

kag+i-bus̆h ${ }^{\prime}$-ta kshis'-ka
cha
et-sik
bug
mang
bašh'-kan
kšhi-skan'
tesh'-an
kušhk
ošh-tan
so-gro'
-



[^3]

气.
品
© on
other
Brun-ka,




| Tiribi. | Terraba. |
| :---: | :---: |
| won-yuk ${ }^{\prime}$ | wan-yǔ' |
| shi'-ya |  |
| kok'+su | hu'-ga |
| kok' + sur-e | hu'-ga |
| kiu'-go |  |
| toi |  |
| shwong' +i -do | d-bok'-tan |
| du-re ${ }^{\prime}$ | ban |
| shi-ri' ${ }^{\prime}$ |  |
| shtuk'-0 |  |
| ba-ja-mo' | bo-kwa-ra' |
| drub-par ${ }^{\prime}$-a |  |
| $\text { shoz-goz' }+\mathrm{ung}$ |  |
| i-bing' |  |
| d-woi-r'ung' | d-bor-ong ${ }^{\prime}$ |
| droz'-bi |  |
| i-geng ${ }^{\prime}$ | \{i-geng ${ }^{\prime}$ |
| tang'ra |  |
|  |  |
| shiz' + ung |  |
| poz-rez' + ung |  |
| ba-bog'-yu | bob-wo-king'-de |
| mal-ish'-tě | mal-e' |
| king'-e |  |
| shu-nyo ${ }^{\prime}$ | shu-nyong'-wa |








rainbow
raw
ready
red
reddish
region
to rest
to return
rib
ribs
right hand
ripe
to rise
river
road
roof
roots of tree
rope
rough
round
to run
sad
saliva
salt
sand
sap
to say

* Impera
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空

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |



kwas-kwa ${ }^{\prime}$
kap

| ŭ-wa-ta ${ }^{\prime}$ |
| :--- |
| i-sta-mu ${ }^{\prime}$-ra |
| ji-i-ja $a^{\prime}$ |

ta-bek ${ }^{\prime}$
kras-kwa + p

#  



shpo-yon'-soi
trung + woz $^{\prime}+$ ung trung + twoz'-ung Melania, \&c., as in Bri-bri diale st, kwa, in Tiribi evidently means shell.





.
霓
品


i-ros̆hk
$k w a$
$b a+a-b i^{\prime}$

ku-ra'
$\square$
$\square$
$\mathrm{er}^{\prime}$-a-ga
kim'-rish-ko
$\mathrm{eb}^{\prime}$-ga
woi' ${ }^{\prime}$ du
beng ${ }^{\prime}$-so
sak-wo + $\mathrm{kes}^{\prime}-\mathrm{i}$
kro-tenz-ung d-bong $+\tan -\tan ^{\prime}-\mathrm{e}$ d-bong + kro-si' -a shu-ring + d-bong' de-nash'-ko
un-e'-bi
so
kuz' + ong
ap
ir-o
en'-
kem
kweb
kem $^{\prime}$-n
kweb'-ga
kwor ${ }^{\prime}$-wo
wo-tuiz' + ung
baum'-gung
pa
d-buz' + ung
 krik
tri'-gua yi-gru-woz'+ung
kro-di-oz'-ung d-kro+tong
$\mathrm{kro}+\mathrm{zi}^{\prime}-\mathrm{a}$
kro+sri-zrin'




| tame |
| :--- |
| tapir |
| to taste |
| teeth (molars) |
| "6 (mell |
| to tell |
| then |
| there |
| they |
| thick |
| thief |
| thigh |
| to think |
| thirst |
| thorn |
| thou |
| throat |
| to throw |
| thumb |
| thunder |
| tick |
| to tickle |
| to tie |
| tiger (spotted) |
| 6s (black) |
| "s (red) |
| time (future) |

\(\left.\begin{array}{l}Brun-ka. <br>
j-ro'-sha-ra <br>
kshuk <br>
du-a <br>

cha\end{array}\right]\)| sek |
| :--- |
| kwat'-kwa |
| ba-eg'-ri |
| krang |
| a-de'-bi |
| bug-ǔ-dek |



Cabecar of Coen River.

| Cabecar of Estrella River. |
| :---: |
| ba-ha'-si |
| hě-rě-be'-na |
| dǔ-wa' |
| hir |
| kras ${ }^{\prime}$-ku |
| mya'-ra |
| bu-ri'-ri |
| kolk'-tu |
| tsŭ-kung ${ }^{\prime}+$ bě-ta kwi |
| bǔ-rat-ku' |
| kar |
| דVag' + ě-ru |
| kar |
| he-man'-i |
| men-e'-wa |




$$
1
$$

Cabecar of Estrella
$\quad$ River.
ba-ha'-si
hě-rĕ-be'-na dŭ-wa'
lir
kras
myá-ra bu-ri'-ri
kok'-tu kwi kar พag' he-man'-i
men- $e^{\prime}-w a$

$$
\begin{aligned}
& \text { shum-e } \\
& \text { no-wa } \\
& \text { d-king }{ }^{\prime}-\mathrm{ga} \\
& \text { je-na-he'-ra }
\end{aligned}
$$

English.
time (past)
tired
toad
tobacco
to-day
toes
together
to-morlow
tougue
top of liead
tortoise
to touch
tree
tribe
trunk of tree
to try
to turn
twice
to twist
ugly
ulcer
uncle
under
to understand
unripe
nntil
to

| -_-_ | san-kwa' |
| :---: | :---: |
| ya'-twe |  |
| ik |  |
| wo-rok ${ }^{\prime}$ | srung-wa' <br> di |
| on'-cham | but |
| shing | ja-a-bi' |
| pu-hu'-i | se-kar' |
| zhe |  |
| zhon'-wa | $\mathrm{i}^{\prime}-\mathrm{i} k$ |
|  | je |
| kob'-wo +ba-kwoz-ung | kos'-wa tsišh-kung |
| kru-ru'-ni | su-wat' |
|  | di'-a |
| i-don'-hi |  |
|  | io'-ge |
| star'-e | wan-ka-li' |
| (bor+)wa-re' | i-ra-rok ${ }^{\prime}$ |

ztomb
kij'-wo
kruu
yar-we'
ko-shoz'-ung
hik
woi-det'
wŏ-ro'
di
sot
puk-tong'-ĕ
kon-e-kro'-ti
jon'-wro
kon-e-de
ba-tnez-wor'-a
b-ko'-ba-kwe
plu-blun'
i
kwo-hik'
ba-met'-o
(bor+-)iok'

$\quad$ Brun－ka．
shung
i－ra－matk＇

sho－o－sat＇

| $\mathbf{u}^{\prime}$－ge |
| :--- |
| bi－ik |
| bi－rošhk |

号
登
気



[^0]:    A. P. S.—VOL. XIV. 3P

[^1]:    * Trav., vol. i., p. 327, Eng. Ed.

[^2]:    \} See ghost; also introductory notes.

[^3]:    mo'-ki
    jik
    kai
    hir
    et' $^{\prime}-\mathrm{ku}$
    bot'-ku
    m-nyar
    kier
    sker'a
    ter'-lu
    kul
    pagl
    te-ner'-lu
    d-bom
    d-bom+et'
    d-bom+bot
    ki-u'
    
    i-ken'-a-wa

