Pot-pourri !

There must have been well over 200 people assembled in this Waiwai village, about 100 Tarumas, including all the men, women and children, a good number of Waiwais who had come in from outlying villages, and there was the population (no mean one) of their own village. The place was packed to overflowing, and a few temporary shelters had had to be hurriedly erected on the edge of the clearing.

The men all dolled up in paint and feathers were Lords of all they surveyed, strutting around like peacocks, chatting and yarning with strangers or amongst themselves, and incidentally consuming enormous quantities of food and native beer. They were a merry, spectacular crowd, and laughter came in peals from all quarters.

Nearly every tribe has one man who is noted for his stories, wit and humorous jokes. The best raconteur I have ever met was a man belonging to the Wapichanna tribe. In ordinary life, he was an apathetic, solemn owl of a fellow, but once the camp fires got going after dusk had settled down, he was a completely different being, and I have often heard him holding a whole camp of some 20 to 30 individuals completely spellbound for the evening. The women would stop spinning, with one hand held aloft; the men would quit such work as they were doing, and swing round to watch and listen the better; all open mouthed, absolutely silent, and completely carried away. The raconteur was yarning away, and gradually a vibrant excitement crept into his utterances as if he were just on the point of bursting with laughter. Then the point of the joke would come in one last telling sentence, when everyone would break into prolonged peals of laughter - the storyteller laughing as heartily as any one. I had him in a camp for some weeks and he used to start storytelling two or three times a week. He had the art of explaining everything necessary during the story, always ending in a crisp sentence that brought the house down, and he never had to add or explain anything afterwards. I was new to the country, and knew little of the

language, so could not follow these stories, but as far as I could gather, most of the jokes centred round simple happenings in the hunt, or silly accidents to others.

Our old friend, Mabba Tiu, was apparently the Taruma jester or storyteller, and nearly every day he would sit out in the clearing with a deep ring of Taruma and Waiwai men doubled up in laughter every few moments. Mabba Tiu was more of a humorist than a storyteller. He kept up a rapid fire of remarks, at which everybody laughed uproariously nearly all the time, and such laughter never came after a long description followed by a tense final sentence. A good amount of his wit was at my expense I found out, - describing actions of mine which were in some ways different from their own, as how I had trodden on a dead fallen branch of a tree which broke with a loud snap under my weight, and how he had jumped "so high" in sudden fear, that some big game had crept up unnoticed and was springing to seize him.

The women, unfortunately, had no time for a holiday or to deck themselves up in their Sunday best. On them fell the duty of providing food for the crowd. Cassava breadmaking was in full swing the whole day, and work was often going on in the dark. There were also enormous quantities of beer to be brewed, and much cooking to be done. There was a steady stream of women going off to the fields, returning heavily laden with cassava tubers, vegetables and fruit. All the stranger women had to work equally hard. The Tarumas had one clear day of rest, on arriving, after which they had to cook and bake for their men folk. A couple of Waiwai women returning from the fields would dump their loads in the guest house and the Taruma women had to get busy. On other days, the Tarumas had to go for their own supplies in some of the various fields.

Nearly every string of women who went to the fields had a man or two accompanying them. I got out my two men and went along to see the operations. The fields presented no novelty either in

appearance or in the variety of plants, except for their size which was much greater than anything I had seen in any other tribe. We went principally for cassava, and the modus operandi seemed to be for the women to dig out the cassava roots, while the men dug up the part cleared, replanting foot long cuttings of cassava stick cut by the women in removing the roots, so as to ensure a new crop next year. I found the workers had only one hoe amongst them, in fact there were only a couple of known hoes in the whole Waiwai tribe, all worn down to about 1/3 of their proper size. Digging operations were done by hard wood poles sharpened to a chisel point. These poles were used by both the women and men. Very old axes, no longer capable of being sharpened up, and of little use for anything else, were also used. The greater part of the digging was done by these wooden chisels and was a slow laborious job. I made it a point to bring hoes along on my subsequent visits, but these were not enough to go round. Axes they must have at all costs, to throw down the trees preparatory to house and field making, but hoes, although in great demand, could be done without. I was told that in the old days when iron was almost completely unknown, their sagas gave it that fire was made round each tree and as it burned, the charred parts were chipped away by stone axes to hasten felling. Up to the very last visit amongst the Waiwai, when my party was asked to assist in planting operations in a new field, most of our men used hard wood poles for digging the necessary holes in the ground.

The Waiwais had shot large quantities of game in anticipation of the Taruma visitation, but this did not last very long when so many hungry people had arrived. The barbecues soon became empty and must be refilled if possible, or at least the pots kept boiling. Every day parties of men went out hunting, and generally returned with good success. The chiefs and elderly men stayed in camp, but the younger men were out almost daily and often all day. When these parties returned, part of the game secured was

invariably turned over to the Tarumas for their use. My particular party, void of women folk, was the particular care of Kiwinik and his wives. We were given the choice of what we wanted and right royally we fared.

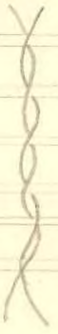
The Tarumas had also to turn out hunting, and I got out my gang also. When I went out, Kiwinik and one or two of his headmen always went with me. They knew the forests and where game was most likely to be found. The Waiwais had only bows and arrows and a large knife or cutlass as arms but they were very efficient with these. I was walking immediately behind Kiwinik one day when we put up a flock of powis birds. We raced ahead to get under them as they hopped and flew from branch to branch in an attempt to clear the dense forest and escape. We got a good chance in an open space, and up went my gun, - a matter of a second or two only - and down came my bird. Two powis thudded almost simultaneously on the ground. Kiwinik had got his bird also, with his bow and arrow.

We had a few hunting dogs with us always and very efficient they proved. Almost every hunt met hogs and these the dogs would either bring to bay, or force to take shelter in a hole either in the earth or a tree. Once brought to bay, an arrow tipped with Makabur - the Taruma and Waiwai variety of the Ouralli poison - was driven home and in a few moments the hog was on its way - pick-a-back - to the village. A poisoned arrow was used in preference, as the hog is a large and strong animal. Unless an arrow pierced a very vital spot, which was most unlikely in a fighting squirming mass of pig and dogs, it meant more arrows to be used, all of which would undoubtedly be broken beyond repair. The poisoned arrow has a detachable head; the shaft might drop clear and could be used again, and once a single poisoned arrow had pierced the body, it was only a matter of seconds before the pig went to sleep from the poison.

Pigs which seek shelter in any hole, soon realise their

Pig Trap

Bushrope

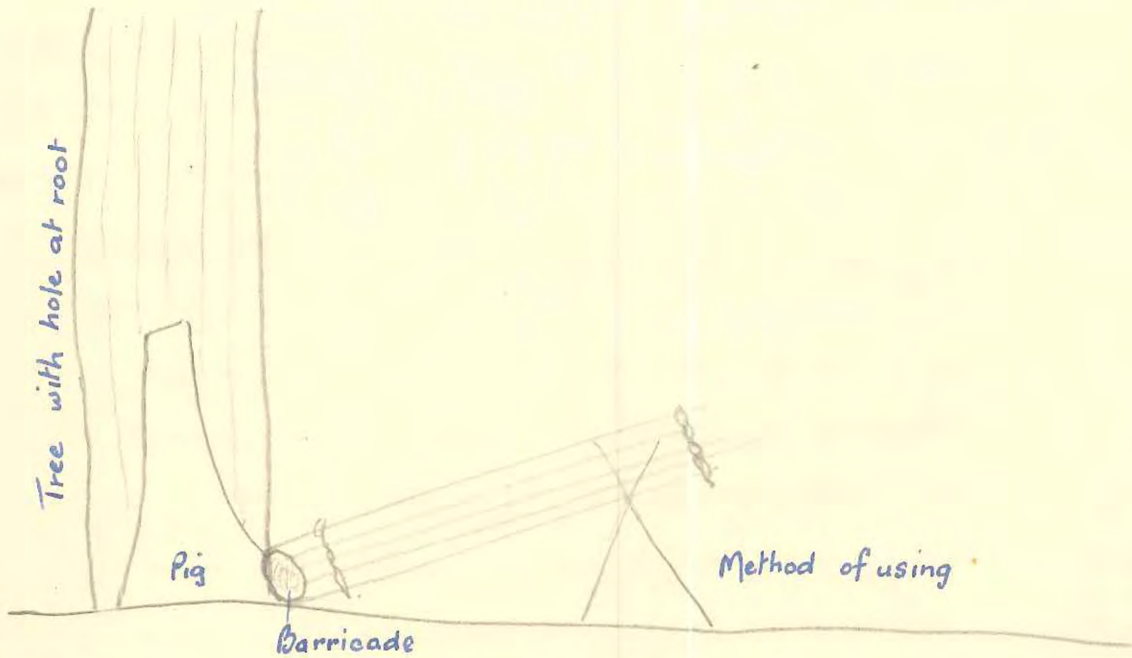


Poles — about 20 used.

Bushrope

The bushrope ends are tied together, when the whole thing forms a tube.

Two crossed poles, lashed strongly at centre, are used to support end of cage.



cramped position, and if the hunter is not on the spot pretty promptly will be off for a new shelter. When found in a hole, the hunters very promptly barricade all exits and then set to work to make a cage to secure the animal. This is done with 2" diameter saplings about 12 ft long, lashed and secured with bush-rope to form an open work tube with both ends open. (See drawings). One end is supported well off the ground, the other placed over the hole. The barricade is removed and the pig rushes out at once and up the tube. His feet however slip between the open work slats when he becomes helpless and can be speared at leisure.

I was surprised to find the Waiwais made use of shooting butts in their hunting. They were generally on rising or undulating ground, where a good view could be obtained in front, or where fruit was in season which would attract game as it fell on the ground. I found these butts invariably arranged at the junction of two creeks. We would creep silently down a shallow or dry creek, the dogs having been leashed and held by someone behind, until we came to some natural cover such as a large bole of a fallen tree, or a tangle of bush-rope. We crept out under shelter of this to a screen or butt made of branches so arranged that the hunter was hidden while he had a clear view in front. If any game was there, it was shot, but if nothing appeared the huntsman began imitating the call of all such animals and birds as were fond of that particular fruit. If nothing answered, his luck was against him when he would move on, or wait as he cared. It was only a question of time before the game must come to feed, generally in the early morning or late evening. Most of these butts were mere temporary screens, and often we stopped to erect a new one at a suitable spot. Others did the same, and when they got back home told of their whereabouts so that other hunters could visit them also. One day I was out alone with Kiwinik and one of his men, when we heard the crowing of powis. Rapidly breaking off branches and saplings they soon formed a screen round the party. They then began crowing in imitation and soon a powis trotted

forward to fall to an arrow, then another and another, till four had been shot. I took no part in the shooting at Kiwinik's special request, and I now saw the reason why. Had I fired at the first bird, the others would have fled from the report, and here we had bagged four birds in place of one.

I had heard of an unusual method of shooting monkeys, and one day I got Kiwinik to stage a demonstration. On the first streak of dawn every able man and boy was sent off into the forests - the Tarumas also. Kiwinik and a couple of his men remained to escort myself and men to the scene of final operations. The sun was well up before he gave the signal to start and even then we did not hurry, as we followed a well beaten trail over the slightly undulating country. Presently we began climbing, and I realised we were entering a high range of mountains. We topped a ridge when we heard shouts and cries from the plain. Immediately Kiwinik shouted, "We must hurry or we will be too late", and bounded up the slope like an antelope. We were soon climbing almost perpendicularly and accustomed as we were to only the level plains, we soon got out of breath and were left behind. The yells beneath us were increasing in number and volume, and our Chief was dancing in excitement and urging us to hurry. It was all right for him, but we were in bad shape, old Saik Tau especially. At last we made the crest of the mountain, and the Chief and I raced ahead. The forest cleared in front and the Chief pointed excitedly, and I saw troops of monkeys against the skyline running up a few large bush-ropes apparently out of the ground and going into the tree tops overhead. We rushed forward, but the last monkey had just passed up, the bush-rope quivering and shaking with his movements, within touching distance of our hand.

I now found we had come out on a sheer precipice some 60 to 100 or more feet high, extending along the whole side of a mountain. This was bare, bald rock, unclimbable at any point except just where we stood. The drop was not so great at our feet, and some half dozen stout, strong bush-ropes, touching the edge in front of

us disappeared amongst the tree tops below us.

The men who had left camp at dawn had surrounded a large area of the lower plain, and advancing in a long thin line, had with their yells and noise of all kinds driven forward such troupes of monkeys as they came across. These they gradually forced up to the face of the escarpment, centring on the point where we now stood. Rather than face the closing ring of yelling humans, the monkeys had seized the bush-ropes to scramble up to safety - as it proved in this case. Had we been a few moments earlier, it would have been a different tale. Bows and arrows were not needed; all the Indian had to do was to seize a club, a few of which lay scattered around at our feet, and hit each monkey over the head as it climbed over the edge.

Saik Tau got the blame for our being late at the rendezvous, and as he was second man there was some truth in it. He was subjected to much ridicule after our return to camp, but I am afraid it was water on a duck's back, and Saik Tau had a thick skin - none knew better than I !

Fortunately the monkeys were not in season at this time and no very great loss was sustained. The hunt had only been staged for my particular benefit. It was the Red Howler and Black Spider variety of monkey that was hunted in this way. When these monkeys are properly fat they are considered quite a delicacy and are eagerly hunted and shot by all tribes. When they are not fat and out of season, they are only shot and eaten as a last resort, when bad luck or poor shooting fails to fill the pot. During the season, Kiwinik assured me it was the Waiwai custom to stage one or two shoots of these monkeys in the manner shown me and they never failed to secure them in numbers. After a smoke and a rest Kiwinik shouted orders to his men below to disperse and to hunt as each liked on the way back to the village. In this they were very successful, and we also got some game on our return journey.

Most of the Indian tribes have a wholesale respect, if not

active fear of the jaguar and the other larger species of the feline tribe. The Macussi and Wapichanna populate large deep pools with a jaguar of supernatural size and power. Every woman must lie up "when sick", as a passing brute would smell her tracks, and pain, illness and even disaster might result. No self-respecting Wapichanna will kill a jaguar even with the inducement of a five dollar cash reward attached, as the spirit of the brute will most certainly retaliate, probably on an unborn baby, a child, or other helpless dependent. A few of the old men claimed the reward I used to offer, but there was much shaking of heads, and "Wait and see", or a very definite "I told you so", if a relative fell ill or died - probably a year later !

The Waiwais had, I found, no fear of any of the forest cats. Round nearly every man's waist was a silk grass cord, on which were strung a few of their canine teeth or tusks, so arranged that they stuck out immediately over the hip joints. I found that every youth had singlehanded to kill a jaguar - the bigger, the better - before he could acquire full manhood status. The Waiwai admit danger from these beasts when wounded or cornered but attribute no supernatural power to their killing, either to the hunter himself or his more helpless dependents. Any man may kill them although after they have passed into official manhood, few men actually do, unless in defence of their dogs or themselves. When the youth kills his jaguar, the eye teeth are carefully cut out entirely, a tiny hole is drilled at the extreme lower point, a string is threaded through and he wears it as a belt. A haka tiger - one of the smaller variety of wild cats - is generally shot first, the larger animal being killed later, after he has acquired a little more confidence. In most cases, the belt carries 6 teeth over each hip, two large jaguar ones in the centre, flanked by two on each side from some of the smaller cats, showing he has killed 2 haka or tabba tigers and 1 jaguar or puma.

When we went hunting, the men left all their ornaments behind, either in the village or at a convenient spot near by in the

forests. Even the fancy new lap or loin cloth would be exchanged for the older working one, as the fewer feathers or gewgaws they wore the better while slipping through the dense undergrowth of the forests. Yet on occasion they could race through the forest with all their fancy dress. The hardest sprint I have ever done was following Yufuno (after Kiwinik's death) in a mad race to overtake a herd of hogs which passed almost through our camp and to secure which he had no time to undress. When we finished, I was quite breathless, but he wasn't even panting and hadn't lost a feather !

I found that the Waiwais had actually three types of dress; the full ceremonial dress on state or great occasions; the working dress, and the one they slept in. The ceremonial dress is an indication of the owner's status, his wealth and above all, his prowess as a huntsman. The youth just entering manhood has to shoot every feather he wears, and it takes him some years before he gets enough to make all the variety of ornaments necessary. He cannot devote his whole time to hunting. He has to cut, burn and plant a field, and assist the village in all communal work. He has his own arms and ornaments to make and countless other duties, so that it is generally not until a man is well over 20 years of age that he can become one of the dandies of his tribe.

The working dress is the plainest possible. The hair tube is worn at all times, but an unfeathered plain one only. The mollusk ear rings will be retained, but their tassels are taken off, and the same goes on over every part. The left arm is conspicuously free from all ornaments, especially below the wrist, so as to offer no impediment to the return of the drawn bowstring after firing an arrow. Just above the biceps of the left arm, a band of gum is universally worn to ensure steadiness of aim and strength to extend more easily their enormous bows, often fully 8 ft long. This band of gum - very like an elastic band - is frequently covered with a long string of white or coloured glass beads. The right arm is generally denuded also, but not to the same extent, their bracelets made from the hard outer shell of the Brazil nut and a band of beads

at the wrist and above the biceps generally being retained.

The pyjamas or sleeping dress is confined to a minimum of ornaments on the body also, and the lap is also taken off in most cases. Underneath his various belts and laps, the Waiwai wears a single cotton yard cord about as thick as a thin pencil round the waist. It is worn rather loosely, and the left testicle is passed up between it and the body to hang over in front. Behind this, the penis is snugly tucked out of sight. Standing naked otherwise than with this string, the Waiwai men are in no way ashamed, as it is their national dress of tradition - probably as a relic of the days when bark laps were those in sole use - but should the penis become exposed to view, he is at once completely overwhelmed with shame, as would be his European compeer in similar circumstances.

The Waiwai women wear the minimum of dress at all times except when there is a dance on: a bead lap hanging in front from the waist downwards for some 8 to 12 inches, the shell fish ear-rings and the rolls of beads round arms, legs and neck being the general custom. The Waiwai women showed little embarrassment or shame, if, for a moment, their whole person were exposed to view. I was very much surprised at this, when I met it first, as most Indian women are intensely shy. I had gone down alone to the creek to bathe one day and had just undressed, when hearing voices I dived into the water. It was a fine deep pool of crystal clear water. There emerged from the road a couple of the young village maids with goobies to carry up water on their return. These they filled and set aside, and began to lay off their ornaments as they evidently required a bath after the work of grating cassava all day. Pulling the slip string of their bead laps they stood a second or two, their whole bodies completely exposed to view, before they dived into the water. After swimming around a while and giving their bodies a good rubbing over in the shallows, by way of removing any dirt, they stood up on the rocks again within a few feet of me perfectly nude, while wringing the water from their long hair. Eventually donning their laps, they picked up their water gourds

and disappeared. They had no more immoral ideas in their heads than a child of seven. They had beautiful bodies, and they knew it, but why be ashamed of God's most beautiful gift, a perfect body ? Few of the maids of any tribe between the age of puberty and motherhood require adjuncts to allure the admiration of the opposite sex. They possess curves, agility, grace and verve which are their natural and greatest charm. It is only when civilization gets a foothold that aids to beauty are brought into play, and then too often comes vice as well.

Hunting amongst the Waiwai in season of good fruitbearing, becomes more play than anything else, especially, as now, when a crowd of visitors was around and all work, except the very necessary, had been stopped in their honour. The Mapura valley is broad and fertile, and hemmed in towards its sources by high and often precipitous mountains, it forms a sort of converging funnel, in which congregate the various flocks and herds of game from the plains, extending away South East as far as the Amazon. When I went out shooting at first, the Waiwais were rather frightened of the report of the gun. On no account would they even touch anything shot. My own men had to pick it up and carry the game home, nor would they taste anything when cooked. No Waiwai would accept any game shot with a gun,and when we got more than enough for our small requirements, the balance went to the Tarumas who accepted it readily enough. On our return journey a few days later over the mountain range where we had been so hungry, we started off with a good supply of dried game. I had however to get considerable assistance to help my own men in carrying all the stuff we had bought between us. Again we fared badly in the way of game and our supply ran down. We got back to where we had sunk our corials at the landing, pretty hungry so far as meat went, as also our dozen Waiwai carriers. Cassava in any form is not satisfying if eaten alone over a lengthy period of persistent hard labour. I however shot a hog within a short distance of the landing, and Kiwinik's father who was with us in

charge of the Waiwai party, timidly suggested that they would try to make a meal of the entrails, liver and lungs. He said these lay well inside the animal, and could not be affected by the powerful weapon, the noise or the visible fire or smoke on a discharge.

It took several visits before the Waiwais became accustomed to a gun, and even up to the last they were very diffident about eating game killed with one. On my last visit, out hunting with Yufuno along the foot-hills of the mountains, I got a chance of a good flying shot - a very rare occurrence indeed in the forests - at some macaws flying along a ravine. I brought down two with the gun, very much to the concern of the Waiwais, who had never even dreamed of trying such a trick with the bow and arrow and did not believe it possible.

Beer ! Glorious Beer !!

Practically every tribe of Aboriginals has some peculiar national alcoholic drink. The Macussi have their Kassiri made from sweet potatoes; the Wapichanna have Parakarri made from cassava and the Waiwais their Bashida, made from cassava also.

There are dozens of varieties of drink made from other sources and every Indian can make most, if not all of these, as well as his national beverage. Strong drink can be made from cassava, yams, sweet potatoes, Indian corn, juice of sugar cane, pineapples, bananas, the fruit of the Kashu tree, various other fruits of the forest and almost anything that contains a fair amount of starch.

Kassiri is made from the edible tubers of the sweet potato, a peculiar pink fleshed variety only being used, which imparts the characteristic red hue to the beer. The tubers, after being well washed and cleaned, are boiled in large quantities and mashed down to the consistency of ordinary porridge. This pulp is set aside to cool, after which a number of women begin chewing mouthfuls and ejecting it back into the same pot or a special bowl, when they consider each mouthful has been properly mixed with saliva. When enough porridge has been sufficiently chewed, the bowlfuls are returned to the parent pot, and the whole thing well stirred to ensure proper mixing. In about 24 hours, water is added to dilute the beer to its desired density, after which it can be drunk, although it does not generally ripen completely under 36 to 48 hours.

The Indians have no means of procuring yeast to start the necessary fermentation in beer making, but they all seem to know that saliva will do the trick. I do not know of any more revolting sight than half a dozen old women squatting round a large pot, chewing away for dear life, and spitting each mouthful back into what you know will be handed to you as drink the day after to-morrow.

It is by no means every girl, maid or woman who can

successfully make beer. Experience and reputation must be gained. The younger females of a village may be allowed to chew a few mouthfuls, but those responsible for its potency and bouquet are generally old women. Amongst the Wapichanna, no woman can make beer properly unless she has had tattoo marks done in a line from the corner of the mouth along each cheek, like this - - - - -, or on the upper and lower lip. These marks must be black, and although various forms of soot can be used, by far the most popular as also the most efficient, is soot made from burning sugar cane peelings under an inverted pot. The maids generally prefer to keep their mouths unmarked, and the tattooing is rarely done before the first or second child has been weaned.

Careful observations of minor details in the brewing are, of course, reasons for the better brews, skill to acquire which may require years of trial and error in addition to instructions and hints from outsiders. Thus a woman may be quite old before she gains a reputation, for almost invariably she has to wait for years, until a previously recognised expert has departed for pastures new. Every maid learns the trade, but her brew must be insipid and only for limited use. Every wife must of course brew her husband's beer and such as he may require in hospitality, but it may be years before she attains the skill or reputation to conduct a village Paiwarri (drinking feast).

Most of the various brands of beer brewed by the Indians have this repulsive form of chewing employed, to introduce saliva to break down the grains of starch. Pure juice from the sugar cane pressed out by simple hand processes, soon begins to ferment on its own account and there are one or two fruit drinks that do not need mastication to induce fermentation.

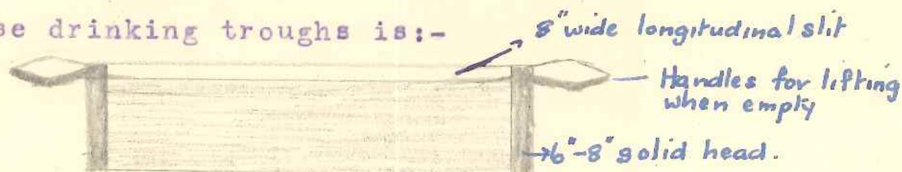
The Parakarri of the Wapichannas is made from cassava and never chewed. They follow the ordinary processes as in breadmaking but a much hotter fire is used under the girdle or baking pan and the cakes of bread are much thicker. This rapid firing causes an

outside skin to form quickly, and leaves a good half inch in the centre of partially baked glutinous dough. A part of the floor of the hut has been well covered with banana leaves in a quiet spot as secluded from light and air as possible. On these leaves, the cassava cakes are thrown as they come off the baking pan. The cakes are laid over a space of 6 to 10 ft diameter according to the size of the brew required, and piled to a depth of some 6". Then the leaves of a shrub are scattered over the top, just a couple of handfuls, together with the flowers and the setting fruit of the same plant. The whole thing is now covered with banana leaves to exclude air and light, and allowed to ripen. In two to three days' time, a fungus has begun to grow on the bread, very like ordinary mould, and all the cakes become almost one large mass of soft fermenting matter. This mass is tasted every few hours and when it is decided fermentation is correct, the whole mass is macerated in pots with a quantity of water. It is then put through fine mesh sieves to ensure against lumpiness, and is at once thrown into the huge dugouts kept specially for the purpose. Large quantities of water are now added; it is then covered up and allowed to ripen for another 12 to 24 hours, when the visitors begin to assemble and the festival begins.

I do not know the botanical name of the shrub necessary to induce fermentation, but it is quite common. Only a half dozen twigs or so are required, but they must have blossom and young fruit.

The beer troughs are made from the bole of the Silk Cotton tree, and may be any length up to 12 ft long. A handy diameter is anything between 3 to 4 ft. In junking out the piece selected, care is taken to provide for a projecting lug or handle at each end. A longitudinal slit of some 8" wide is made along the top, about 8" from the end proper, and the whole centre is dug out leaving some 2" of wood as a skin. The digging is done with cutlasses, axes and such tools as they have. The wood is soft, more like hard pith and easily worked. It is now allowed to dry, and a fire is made inside, generally with some of the dug out pith after being

dried. This burns easily, but with no great heat. The object is to char off all splinters on the sides and so present no danger to the women's hands when they reach to dip out beer at low levels. The form of these drinking troughs is:-



These troughs are very light when dry and can be picked up by two people if empty.

I have known Indians roll a Silk Cottom log for miles across the savannahs to their houses to be dug out eventually as a beer holder.

After the fire, the ashes are tipped out, the sides rubbed to remove any points, but charcoal does not poison, so why worry ? I have often seen a first or second brew with quite a lot of charcoal floating around in the beer when being served, but it is quite immaterial !

The Wapichanna have a peculiar custom at one of their drinking festivals. The beer belongs to a certain head man who issues the invitations, but wrestling is indulged in outside the house as the various visitors arrive, and if one of these can enter the house without being overcome, the drink belongs to him and he becomes master of ceremonies at the revel. The owner of the drink can arrange a guard to assist him and generally all the village or chosen relatives form the guard. In wrestling, the object is not to throw the opponent on the ground, but to lift him bodily off the ground till both feet are no longer touching. The favourite method is to get the opponent on to one shoulder and then carry him a yard or two, when the victor contests with someone else. I have never seen a drink so won although I have heard of occasions when it passed to the visitors. I once saw one very powerful Indian who threw one after another of his hosts, until they all turned on him like a lot of terriers and he was raised clear of the ground.

I was at one such drink by accident, and we were all sitting outside in the shade of the house, the guard lined up around and

in front of the men's door when a large contingent arrived from a neighbouring village. About a quarter of a mile away, they gave their tribal yell and started racing towards the house. When about 30 yards away the guard rushed forward, slapping their chests with one hand and shouting "To me, to me", as they singled out opponents. There was one small stripling of a youth, whom no one thought worthy of his steel. He kept on running and presently realised he was inside the guard. He dived for the door yelling, "The beer is mine, the beer is mine", but -- ! Two old crones had come out of the men's door to watch the excitement and they now pounced for the youth calling loudly for help. The youth flung one old lady from his path, but the second got a secure hold of his lap from behind and held on. His belt broke, the lap came away in the old lady's clutches, but he continued for that door in his birthday suit. Other eyes had been watching inside the house also, and now, like a flock of hornets, out came a bevy of hefty maids and young women, who seized the naked boy and tossed him ignominiously again and again. Everybody went into fits of almost hysterical laughter. It was considered a great joke, and for weeks served as the stock entertainment of the whole tribe.

In appearance Indian beer is very unlike the variety known to civilization. Instead of being a limpid amber beverage it has about the consistency of thick pea soup with a range of colour from red to orange with a puddley brown in preponderance. At its best point of ripeness, it is slightly acid, and after a walk of hours under the broiling sun and no water, it is a most efficient thirst quencher. It also supplies considerable food for digestion and tides over a weary hour for the hungry hunter or traveller, while waiting for a meal to be cooked. Beer made from sugar cane is a ciderlike beverage, but cane cannot be grown in sufficient quantities to provide enough beer to fill their huge drink troughs, and it is generally added to other cassava brews to increase their potency.

When the beer is resting in the trough, the alcoholic part

tends to accumulate on the surface, and generally has to be well stirred before being served. By the time a man has drunk a large calabashful, much of the cassava grain has sunk to the bottom, and the last third to be drunk is a thick gruel, a good part of which is often surreptitiously thrown away. If, however, the women wish to make anyone quickly drunk, they carefully skim off the thin watery layer containing much alcohol at the top of the trough and hand it out. A few small calabashfuls (cupfuls) of this will soon bowl over the most hardened drinker.

At a big piwarri or drink, the women hand out the beer. Each woman has a big bowl of beer in one hand, but she serves it to the guest in a smaller calabash, never handing out more at once than a small teacupful. The Wapichanna women in strict etiquette should hand out a succession of three such drinks to the same person, but never more. The visitor should and often does hand her an equal number of drinks, which he dips from the large calabash in the woman's hand, as he drains each cupful handed to him. The man must drink the three calabashfuls handed to him, and so must the woman if he returns the compliment. She is however serving drinks to all and sundry and if each guest she approaches hands her the complimentary three she is quickly on the fair way to becoming drunk. Generally the women take it in turn, even the little girls have to serve, otherwise they would soon all be helpless.

The men soon become quite merry and hilarious, but this soon gives way to the cantankerous, quarrelsome stage, and then they pass on to the maudlin, sleepy state when they generally go to sleep for some hours. Dancing is the invariable accompaniment to a piwarri, which may be kept up half the day and all night. They are never all at the sleepy silly stage at the same time, and so keep it up in relays. The leader of the dance is a man of note, either from his ability in the art or for his singing, and must carry on dancing until he becomes either physically incapable of further prancing and foot pounding on the floor, or is hopelessly drunk.

The national beer of the Waiwais, Bashida, is made very much

on the same lines as the Parakarri of the Wapichanna, but I have never seen it made. They either use some other herbs in starting fermentation, or there is some difference somewhere in the manufacture, as its taste and certain properties are different. It has about the same potency and effect as Parakarri but is much sweeter and more agreeable to the European taste. At some proper point in the fermentation stage of the covered bread cakes, they put it up in rolls some 2 - 3" diameter and up to 2 ft in length. These are covered with the leaf of a certain palm and secured with bush-rope. These palms are low growing with each leaf entire and not split up into scores of separate fronds. I have carried Bashida from the Waiwai country for many days overland when put up in this form and invariably found it kept its properties to the last, being still agreeable to the taste and with a fair amount of kick left. The parakarri on the other hand must be used up once a definite maximum of fermentation has been reached, otherwise acetic fermentation begins when it soon becomes so acid that it must be thrown away.

No self respecting villager will willingly be out of beer at any time, and there is generally some variety on hand in a goobi of say two gallon capacity. This is for the use of the passing stranger or visitor who may drop in unannounced. Strict Wapichanna etiquette demands that the newly arrived guest must be handed a drink as soon as is convenient or possible after beginning the arrival litany with some male member of the house. A calabash of beer is handed out, its size depending either on the supplies to hand or the number of visitors. If no beer is on hand some substitute must be found. A favourite one is to macerate ripe bananas with the bare hand in a quantity of water in a calabash. They may soak a couple of handfuls of farina in water, or a few squares of bread, or some fruit which happens to be in season. In no case will pure water be handed out. It can be obtained if asked for, but it is not a proper beverage to greet a guest with. As can happen occasionally one may reach a hut

which, at the moment, can turn out no drink of any kind, and it is a very shamefaced housewife who comes out to apologise - as apologise she must.

It is also very bad form not to present a drink of beer at the conclusion of any meal. The men folks may go out to the fields, hunting, fishing, or to other various duties and may return singly and at any hour. Each must have food set out as he arrives and be given a calabash of drink when finished. Woe betide the wife who cannot beg, borrow or steal some liquid refreshment, if only a tiny cupful, at such times as she has been too busy to attend to her own supply. There will be a lot of surly remarks about her inefficiency and laziness, and sarcastic comparisons with some other neighbouring housewife. All Indians are very sensitive to criticism or ridicule, and I have known many a woman retire to her hammock sobbing silently at such times - silently, because if she made the slightest noise she might get more, or worse - a thrashing!

I have never seen drunkenness amongst the Waiwai. I have seen them get quite merry at times, but they all seemed to have the sense to stop or disappear before the quarrelsome stage set in. I have seen their guests well intoxicated, but never themselves. I have sometimes wondered if this abstemiousness was due to their whipping matches which is the general way of settling any quarrel. There is no doubt about the severe intense pain and days of subsequent discomfort following even a mild whipping, and much worse when the passions are roused.

In hard times when food supplies are low, the quantities of beer consumed may have to be small, but in average times each man will consume a gallon or more per day. It is only at a drink that he takes enough beer to affect the system in any way. He has his drink after meals just as a European may have his glass of water or a cup of tea, but on no account must an Indian get drunk alone. This would be a disgrace and a slur on their socialistic communal principles.

A single visitor, if only from a hut on the adjacent piece of rising ground, is sufficient excuse to get drunk if possible. It is however at their festivals, when great preparations have been made, that an Indian can indulge to excess. At such times, great quantities are drunk. They drink to repletion and then regurgitate, and go on in this alternative performance as long as the physique will stand it. I abhor an Indian drinking festival and would go miles to evade one. You must drink what is offered; it simply cannot be refused, and pretending to be asleep is no excuse, as after an hour or so of rest, they will wake you up. In open grassland with no cover anywhere, you cannot escape as can be done in the forests.

Their drinking festivals may be pure hospitality only, but often a man wishes to become thoroughly drunk, so he throws a party. They can also be got up to welcome members of the village who have been absent at work for some time elsewhere, or any excuse may serve. Then there is the working festival. A man may want to underbrush a field and cut down the forest; he may want help in making a canoe or building a new hut, so he invites all his neighbours to come along on a certain day. Prior to the date arranged, he scours the country for game and the women are busy baking cassava and brewing beer for the benefit of the workers. Soon after daylight on the day fixed, the neighbours begin to arrive. The men and boys generally go straight to the scene of working operations, while the women make for the village to assist in the baking, brewing, and various other duties. The men work steadily with a short rest and a meal towards noon. By 2 p.m. the work may be finished but on no account do they work later than 4 p.m. Everybody has a good bath, puts on fancy dress or best clothes, and makes for the host's hut. A good meal is served at once, drink circulating freely also. Actually, they rarely eat much, for the prudent housewife plies them with beer as fast as it can be drunk, and in this way she conserves both bread and game

for another day. When the meal is over, they commence drinking in earnest and it may be kept up till daylight or even all next day if the supply lasts. They only disperse after all the drink is finished and even then they often have to sleep off the effects. Even when drinking hard they may complain of being hungry and a meal will be set out. I have seen this in the daylight, but never at night. The day following the orgy, the traveller may arrive to find no beer in the house. There is a legitimate excuse on such occasions, but the wise wife will have secreted a gallon or two somewhere for emergencies, and it rarely happens.

Indian Life - in general.

The closer Man lives to Nature the harder he has to work. There are no eight hours a day or forty hours a week with her. Man's artificial laws may create an elusive wealth, and so he may surround himself with parasites who minister to his wants, thus allowing himself leisure for thought and the invention of more codes, laws, and means on similar lines, yet it is a safe bet that even the leisured man is as busy - somehow - as a bee. It is, however, the man who, with only two hands and a single brain, has to provide the entire wherewithal to live himself and to meet the demands of his family (not society) that has to work hardest mentally and physically in order to wring a livelihood from raw, non-philanthropic Nature. The Aboriginal Indian of the forests, with the minimum of help from outside (probably less than five shillings per family per annum) must work hard and intelligently, or - go under.

The primary duties of the human being are the production of food for himself and his dependants, and some sort of shelter from the climatic vagaries of the country in which he lives. This is a comparatively easy proposition in civilization, with its co-operation, communication, and a monetary standard co-ordinating labour and necessary supplies, and it is exceedingly hard for the man from outside to even imagine the difficulties that beset the primitive Indian in securing the necessities of life by his own single exertions, a minimum of tools and a complete ignorance of the world beyond his horizon.

The knowledge of iron and its properties seems never to have been acquired by the Aboriginals of the Amazon Forests, and prior to the arrival of civilization, such tools as they possessed were of stone. It is only comparatively recently that iron tools have penetrated through the slow, almost non-existent channels of commerce between the various tribes and even to-day many of the more remote tribes have very few iron implements. I have seen villages whose sole supply of iron tools consisted of one axe and a couple of butchers' knives. Amongst the Waiwai, the possession of a three pound axe, a machette or a

butcher's knife and a tiny circular mirror (value one penny) places the fortunate owner in the ranks of those who pay Super Tax. Add what is known as a "six by nine" hoe and a dozen of assorted sized fish hooks, and at once he is amongst the Rothschilds or Rockefellers of his world. He will probably have been married before he acquired such wealth, but with only these few tools, he is perfectly able to branch off alone and lay the foundations of his own village somewhere in the distant forests where the environment and conditions are to his liking, and will provide every necessity for himself and family.

The wise old knowledgeable Indians have often told me that in the early, or now prehistoric stages of life, the tribes cut their fields by piling debris at the foot of the trees and setting it alight. After burning some time the fire was allowed to die out and the charred parts of the tree dug away with their stone axes. Amongst the Mapidien and Diau Tribes - two very remote tribes in Brazil - I have seen such fires burning round certain large, very hard wood trees in their clearings, as these tribes had the absolute minimum of iron tools and no means of procuring more.

Two young Indian men were returning from civilization where they had been working as hunters for some months on certain mines. They were ascending a large, uninhabited river through the forests in a woodskin, in which were packed the various articles or trade goods they had bought with their wages, and their frail craft was suddenly swamped in negotiating a bad rapid. Everything they possessed was lost in one second in the tearing current, but they managed to save their lives by swimming to a nearby island. They found themselves standing in their loincloths only, but fortunately one man had a knife stuck in a cord that served as a belt round his waist. Weeks later a friend of mine was going down river to the coast in a boat and seeing smoke, pulled over to the island to see what was the reason of a fire in such a lonely remote part. He found the stranded men who reported their disaster and how they had been marooned for "two moons". They had made fire by friction between two pieces of dry wood and had erected a rude shelter of wild plantain leaves. This was during the rainy season, a period when it is very dangerous to climb any trees,

especially the palms which grew in abundance on the island and fortunately were in full fruit. On such days as the trees were possible to be climbed, they laid in as large a supply of nuts and fruit as possible, but when the tree trunks were wet and dangerous (generally the case in wet weather) they had made fire at the foot of the palm trees, and hastened the work of felling by digging away the charred parts with their knife. They had not dared to swim to the mainland owing to the swift currents and the dangerous rapids immediately below. My friend offered them a passage down stream, but this the two men refused as they were naked and hence ashamed to be seen in civilization in loincloths only. They begged him however to ferry them over to the mainland and to land them on the high land opposite the rapids. This was done and he gave them such supplies of food as he could spare. They waved goodbye quite cheerfully as they nonchalantly turned to walk a full hundred miles through the trackless forest to the nearest habitation.

The acquisition of only a few iron or steel tools must have very much lightened the Indians' labour, as the grinding to shape and creating a fine edge on their beautiful stone axes must have been a long laborious task, and when perfect, could so easily be smashed to smithereens against the hard wood trees of the forest, while felling a field. Even the most modern steel axes in the hands of the amateur or careless worker are apt to have great chunks of steel broken out when cutting these particular woods. Once, when cutting a road with a large gang of Indians, I handed out six brand new axes at daylight. By noon I found large semi-circular pieces had been "dished" out of the cutting edges of five axes, and only one remained perfect. Most of the subsequent work was done with cross-cut saws. One would naturally think the Indians would therefore treasure their iron and steel tools, but except amongst the more remote tribes they rarely do. I have often seen a man using a good axe to cut arrow points out of an old discarded barrel hoop. He would lay the hoop on a rock, one man holding the axe in position, while an assistant would pound away on the heel of the axe, with a wooden club or a stone. Naturally the cutting edge of that axe was completely ruined

after such treatment and it would be thrown away for good unless real hard times came along when a man would spend a couple of days or so patiently rubbing his axe on a piece of sandstone to regain some degree of sharpness.

The provision of shelter against the elements is fairly easy to even the most primitive Indian. On the forest floor, the temperature shows little difference night or day, summer or winter, probably a range from 75° to 80° being general throughout the year, except during periods of prolonged rains. Even then it is rarely ever cold actually - "cold" for an Indian sets in at 70° and lower - and thus they do not have to provide against the much greater extremes in climate of other countries. For more than half the year, a few wild plantain leaves and half a dozen saplings will be all that is strictly necessary as a temporary shelter, although every self respecting man must and does erect quite a good serviceable home with a stout roof and walls. These of course vary according to tribal custom and individual taste from the huge elaborate communal house in which a dozen families may reside, down to a flimsy hut with just enough room in which to swing the proverbial cat. The materials for any grade of house can be found in most cases within a couple of hundred yards or so of the spot selected as a site. The surrounding forests carry unlimited supplies of wood for uprights and rafters, palm leaves for thatch, and tough lianos which are used as cordage in lashing and binding the various parts together, for nails are an unknown quantity.

The prairies of North America before civilization took charge teemed with wild game, but the colossal forests that clothe the Amazon River, its tributaries and many good sized rivers to the North never had this wealth of indigenous wild game. There is probably a much more varied fauna to the square mile of forest than a similar area in any other part of the world, but such fauna is small or even tiny by comparison and much of it either objectionable or too minute in form to enter much into the economy of living for the human race. There are probably not more than a score of animals that are of use as food, ranging in size from a tiny rabbit of one pound in weight to

the tapir - by far the largest game - which may yield a hundredweight or two of meat. Of the thousands of species of birds that range these forests, I doubt if there are much more than a score that are of use for food, and these will range from a few ounces in weight up to the powis, about the size of the ordinary turkey. None of these forms of a meat supply can be considered gregarious except in the case of two varieties of wild hogs, or on occasion the grouping of a few individuals during the mating season, or before the dispersal of a young family of recent origin, and most of the game are found singly or at best in pairs.

Such useful fauna as these forests do contain are exceedingly shy and wary, for some unknown reason that never registered on my power of observation. A considerable number of tiger cats is to be found, yet not enough to form a menace to the life of any particular species. The law of the survival of the fittest doubtlessly applies to the jungle, even if the dangers are less spectacular and apparent than in other places. I have certainly been in parts of these great forests, hundreds of miles from the nearest hut or habitation, where the foot of no human being has trodden within living memory, yet I never met the game as unsophisticated and tame as travellers report from other parts of the world. Now and again game will everywhere walk into the range of the arrow or gun with the most apparent ignorance or disregard of danger, but generally they require the greatest skill or patience to approach. Thus game is difficult to locate at all times and is so few and scattered that any overland expedition on a couple of hundreds of miles trek, even in the most remote and untouched forests, has to spend much time in procuring supplies of meat. There may be periodical surfeits, but again, days may pass without meeting a single piece of game, and generally such a trek means considerable privation if the expedition has to depend solely on the surrounding country en route for full supplies. Around a settlement such game is naturally even more scarce and wary. The constant demand for meat largely exhausts the supply over a radius of several miles and entails a higher degree of skill and patience on the part of the hunter, as also ~~farther~~ further excursions, afield

until the Indian, even with his uncanny powers of observation, mimicry and patience, decides he had better move away to a new location where game is more plentiful.

Whenever the Indians are met on the trek in the forests, the male heads of the families invariably walk along in front, carrying practically nothing but weapons, while their women folks and immature lads stagger along behind carrying enormous loads. One of the reasons for this is the sensitiveness of game and the difficulty of locating it in the jungle. The hunter must be ready at any second to bound ahead or off on either side at the slightest sound or indication of game. A heavy load detracts from the acute observation which is necessary: impedes rapid, stealthy motion, and to discard it means noise which would further alarm the game. With the silent, stealthy step which is the Indian's general mode of progression, these men not infrequently startle a deer or some other game lying asleep or resting along the route. The animal may only be a few feet or yards away, yet totally invisible in the dense jungle and has itself only dimly sensed danger. It probably dashes off a short distance only, but soon comes to a halt to make sure there really has been danger and to locate its proper direction. At the very first sound, the hunter knows exactly which game he has disturbed and he is off after it. Then there commences a test of keen observation between hunter and hunted in which not infrequently the man is the winner. The hunter may walk for hours without flushing game in this manner or he may put up game half a dozen times in a few hours. He never knows at what second his skill as a hunter may be required and he must be always ready. A heavy, or any, load would mean delay or noise, and the chance would be more in favour of the game escaping. What was and still often is necessity soon becomes a tribal habit, and the women uncomplainingly accept their position as beasts of burden at all times. Even knowing all this there have been times, when I have been most annoyed to notice a family walk into my station, the husband jauntily carrying only his weapons weighing not more than a couple of pounds: the timid little wife following behind, walking with the stilted gait of the overladen and carrying more than her own

weight in goods for sale, household goods, babies and sundries. Expostulation was useless and quite incomprehensible to either party.

The more primitive Indians depend almost solely on the bow and arrow for procuring a supply of meat in the forests. Many tip certain arrows with some form of Urali Poison when hunting for the larger species of game, as its deadly narcotic principles ensure a certain and speedy death, even when not shot in a very deadly part of the body. Most of the wilder Indians are splendid shots with the arrow but it matters little how accurate the marksman, or how effective the poison, for it almost invariably means that every arrow that finds its mark is completely broken to pieces in the death struggles of the game. When starting off to the forest, most Indians carry half a dozen arrows, but when they return, the majority will have been thrown away as useless if they have been even moderately successful. These arrows are beautifully and skilfully made and it means several days in collecting the various parts used, and subsequent manufacture: but he must replace them before going hunting again. With all the raw material already gathered, properly seasoned and ready to hand, it will probably take him half a day's work to make a new supply. Many Indians keep an emergency supply of arrows stuck perpendicularly (to keep them from warping) by their points in the thatch of the roof over the particular part of the hut where the hammock is slung. Not a single week passes however without the hunter having to spend one or two afternoons either repairing breaks or making complete new arrows.

The dense forests with a deep blanket of vegetation generally well over a hundred feet thick offers but little in the way of food for humanity. Many trees carry edible fruits, but these cannot be compared with the cultivated and more satisfying varieties of civilization. Nearly all such fruits of the forest carry either a large seed or two, or a considerable quantity of smaller ones generally surrounded by, or packed into a small quantity of vegetable matter that has an agreeable taste, just sufficient to attract the forest fauna and so assist proper dispersal to ensure the survival

of the species. Very few are at all satisfying as a food unless eaten in large quantities, although everyone welcomes the different varieties at the various seasons of ripening for their flavour, and as something by way of a change. Such fruits ripen at largely varied times, once a year in general, but rarely in profusion more than once in every three or four years. They are of little use as a staple food, however welcome they may be when in season, and cannot be relied on as a complete diet for long. Once mature, they deteriorate rapidly and can not be stored for a rainy day, or future use even a week hence. A few nuts are the exception, the Brazil Nuts of commerce, and the much less known but preferable Sowarri Nuts being the best and most general. They can be kept almost indefinitely but the stomach of the hardiest soon revolts at them, when they form the main article of diet.

Periodically, every tribe is faced with a shortage of food from their cultivations, often from no fault of their own. On my first visit to the Waiwai, I found very little food amongst the Taruma, owing to excessive rains having rotted their crops, whereas the Waiwai had a superabundance of everything. It was not a case of thrift or the contrary. The heavy rains had fallen much too heavily on the North side of the watershed - a long East and West chain of mountains - whereas to the South the rainfall had just been correct. Thus the Taruma returns were probably 50% below average, while those of the Waiwai were just as much above normal. Experience and records show that climatic factors influence agricultural returns of every nation in the world, and national or international estimates of key food products change from day to day and are keenly scrutinised by those whose business it is to see to an equitable distribution. Civilization has its ships and trains and no general scarcity occurs, but the Indian, having none of these adjuncts to hand, when faced with a scarcity, can only turn to the forest to live somehow, as his whole world rarely extends beyond the next valley.

I have known such a scarcity approach the margin of famine. There are always a few families who through sickness, absence of the men on work outside, or just laziness (as is found in every community)

who have not planted their share and were hoping to draw on their neighbours for supplies. A sudden drop of 50% means beginning on the crops while the tubers are still small, and this, combined with those who have nothing, means the tribe is soon completely cleaned out of supplies. I have been through more than one such famine in the Wapichanna country in which there are probably one thousand individuals. I had no more food in stock than would carry my station along; the rivers were not navigable (it being the dry season) within considerably over one hundred miles and I simply did not dare to hand out my stocks of food. Whole families would scour the savannah country in search of any natural supply. They dug up every form of wild yam, sweet potato or arrowroot, forms of food that are generally despised, and caught fish or other game by every means within their knowledge. One form of savannah food at such a time is a large, circular and thin bulb from which sprouts a rather pretty, green, speckled stalk and a few leaves on top. This would be grated up and made into coarse bread in much the same way as preparing cassava. I have eaten it and can vouch for its disagreeable taste, but it is only eaten when all else fails. Many families would flee to the forests, but here again, due to the long dry season, there was equally little to eat, and the next dry season invariably set in to find every person emaciated and thin. The majority of their economic plants are grown from slips, and every family invariably planted a good supply of these on the margins of the various water holes or such permanent water as existed in their districts. With the first rains they would replant their empty abandoned fields. The rivers would rise in flood and great numbers of new fish would arrive in the various pools which would help matters, but almost invariably it meant their beginning on their new crops before they were mature. A general famine means a period of considerable scarcity during the following year. I have known the Wapichanna unable to stage a drinking festival and dance in any of their villages for a period of some eighteen months, which is considered the very acme of self denial, and it would not be until the end of the second year that supplies would again become normal.

The forests would seem by their marvellous tangle of growth to indicate soil of exceptional richness, but once this covering of greenery is removed to make way for fields and gardens, the soil soon suffers in fertility through leeching caused by a very high rainfall. Weeds of all kinds, rarely seen on the forest floor, spring up overnight. The forest also immediately begins, with the deliberation and certitude of the glacier advancing on every side to reclaim the thefts of the puny human ant. In a year or two, the surroundings of a camp become denuded of material required to repair their tools and houses: the latter become insanitary: the task of keeping the fields weeded and open calls for more and more work and worry, until it becomes easier and better to start a new location than to keep the old one going, and so the Indian moves on. Sickness, death and other factors may also effect a speedy removal. I have known villages survive for years in exceptional cases but on the average, they move somewhere else at least every third year. The distance of the move may vary from less than a mile to as much as five, depending on various factors such as the cause of removal or the better economic factors of the site selected. In savannah country, the Indians do not move far as a rule, permanent water for household use, and a site well above high water mark only being essential. Amongst the Wapichanna, a small hill covered with sharp jagged quartz pebbles is the ideal site preferred, as such pebbles are popularly supposed to give protection, during the night against enemies. The evil spirit (Kenaima) delights to trap the unwary by night, but a wrong step in the dark on the sharp edge of such a pebble would almost certainly bring forth an exclamation of pain, and thus give warning. Removals in the forests however are generally much longer distances. The same conditions apply to water facilities, but consideration is given to other natural conveniences, possibilities of game, open forests, favourable soil, and an abundance of fruit and necessary materials.

Movement in the savannahs causes little inconvenience to the stranger or visitor, as the country is open, and generally the new site can be seen quite easily, but it is a very different matter when removals take place in the forests. The visitor follows along the

usual road to emerge into the clearing to find the house he knew has been burned to the ground (generally the sign of a death of some important inmate), or the house has simply been abandoned. Visibility is confined to the clearing itself and there is no indication as to where the new village may be located. The only thing to do is to follow all trails leading away into the bush, but there are so many hunting trails in every direction that it is most difficult to find the right road. I have often lost a day hunting for a new location, and I have one vivid memory when we spent three whole days in the attempt. The occurrence of large, dense spiders' webs across a trail is a sure indication that it has not been traversed for some weeks or months, but on this trip the village had apparently moved away fully a year ago, and there was no help for it but to follow each trail to the bitter end. At last a light "Sirahee" (a broken twig or a cut sapling every five to ten yards) gave us a possible line and eventually we found the new village some fifteen miles away.

Unable to procure an adequate and permanent supply of food from his natural surroundings, the Indian has willy-nilly had to develop various natural products of the forests. To-day, cassava in some form or other is the principal food of every tribe in the Amazon Forests. It is found growing wild along most mountain ranges, where the forests are thinner and more open, thus allowing a rather stunted shrub of little more than three feet in height to compete successfully for a place in the sun. Its edible tubers doubtless have been known for generations and the ease with which it can be grown from every small part of the stem or twigs may probably have been noticed by pure accident originally. This wild cassava, by careful selection, aided by fortuitous cross-fertilization has now given place to dozens of varieties all showing great improvement in quantity of yield, flavour and colour according to individual taste.

After the cassava, come the yam and sweet potato as articles of diet. Both of these again have been developed from the wild varieties and almost every village has its own particular brand, many of which are of excellent flavour and quality. I know of one small area where the wild yam is always to be found. It is exceedingly coarse and

poor flavoured and never disturbed in ordinary circumstances, but in periods of scarcity or famine the Indians would dig up the whole place after every vine they could locate. In a couple of years' time, these yams would be as prolific as ever, having probably sprung afresh from a few tiny remains of such tubers as escaped the eagle eye or the eager hand of the hungry diggers.

Bananas, pineapples, peppers, tobacco, a few bulbs and quite a number of other economic plants have been brought under cultivation and developed to comparatively high standards to serve either as food or as an aid in their various arts and crafts. Of these latter, silkgrass and cotton are probably the principal ones, the silkgrass providing cordage, fishing lines, strings for bows, etc., when spun on the leg with the hand; the cotton giving a supply of lint from which to make thread, to be later woven into loincloths, hammocks and other necessities.

Some thirty years ago, I was asked by the U.S.A. Department of Agriculture to collect samples of all the varieties of cotton I could find in use amongst the Indians of the remote interior. Of the ten or twelve varieties submitted, only one would stand up to modern world tests and requirements, and it was found that its length of staple ran so close to Sea Island Cotton standards, that doubts were expressed as to its being indigenous. This doubt I was unable to refute beyond the statement of the Indian who grew it to the effect that, "Grandmother always planted this variety", and the fact that I found it growing in the high forest several hundreds of miles from any point of civilization.

To develop these various plants, the Indians had to devise some form of clearing in the forests by such methods and means at their command, now unfortunately lost in obscurity owing to the distortion of fact through a century's long chain of oral teaching, and since the introduction of iron and steel tools. To-day, field cutting is pretty general in method amongst all the tribes, and varying only slightly through lack of tools amongst those residing in the more remote and inaccessible parts.

The selection of a site for a new field calls for considerable care and skill. The soil must be light and sandy, as being easier to

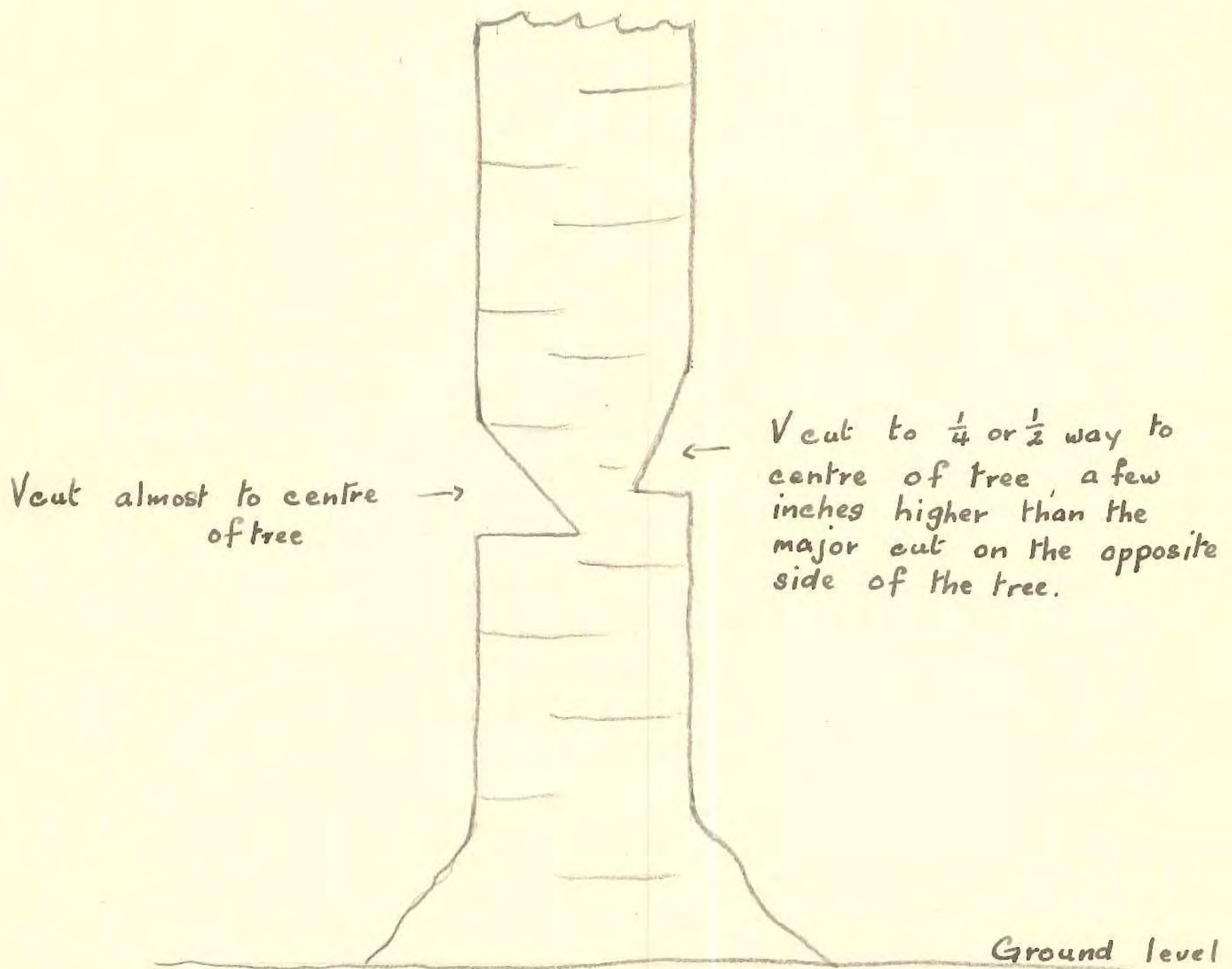
work and better adapted to agricultural growth. It must be covered with a good thick layer of fallen leaves and debris, which when burned largely enhances its fertility. The area must carry the maximum of small, easily cut trees, and the minimum of large or extremely hard wood trees or those with enormous buttresses as entailing less hard work in felling, yet it should have one, large, heavily crowned, master or key tree in a commanding position. The area must also be above high flood mark, on the slope to ensure natural drainage, yet devoid of seepage from higher ground, as moisture in excess is fatal to most of his plants.

Once all the factors are satisfactory, a benab - small triangular shelter - is made of palm and wild plantain leaves at some convenient spot, where the man and his wife can reside during field felling operations. The first work to be done is underbushing - the cutting down with his machette of all lianos, vines, saplings and young trees up to the thickness of the forearm, within the area. This will take about three days of hard, steady work in the average sized field, which is generally about half an acre to begin with, as being enough land to clear and plant in one season. It is generally enlarged at various times afterwards.

He now takes his axe and begins felling the trees. They are severed roughly about waist height of the axeman to demand less movement and exertion in stooping and rising erect at each blow of the axe. A cut level at the bottom and sloping down from above in the form of a V is made in the direction the tree is to fall and in the opposite direction to where the key tree is standing. This first cut is made to within a reasonably close distance of the centre of the tree; then he commences a new V cut on the opposite side. The level of this cut must be some three inches above that already made to ensure easier felling and less work, but the cut is only made to about one-third of the tree's diameter, thus leaving one-fourth to one-third of the bole uncut. In no case must the tree be completely cut or severed and the cuts when finished should resemble Diagram No.1.

The tree is left standing and the Indian tackles every tree in the proposed clearing in the same manner until the whole field is just

Method of cutting V's when felling trees.



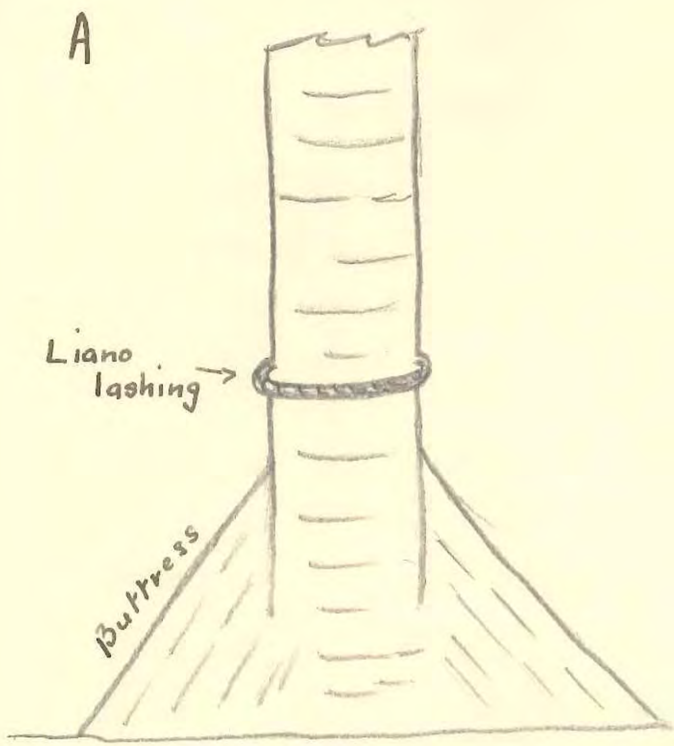
so many partially severed trees. He then begins work on the master or key tree in the same way but this he severs completely so as to fall in the direction chosen. As this huge tree begins to crack, the axeman pays great attention to the best line of retreat; a few more blows from the axe and the tree begins slowly to heel over, whereupon the axeman dashes back into untouched forest for safety. With a mighty crash, down goes the key tree, carrying in front of it the whole field of partially severed trees like so many skittles.

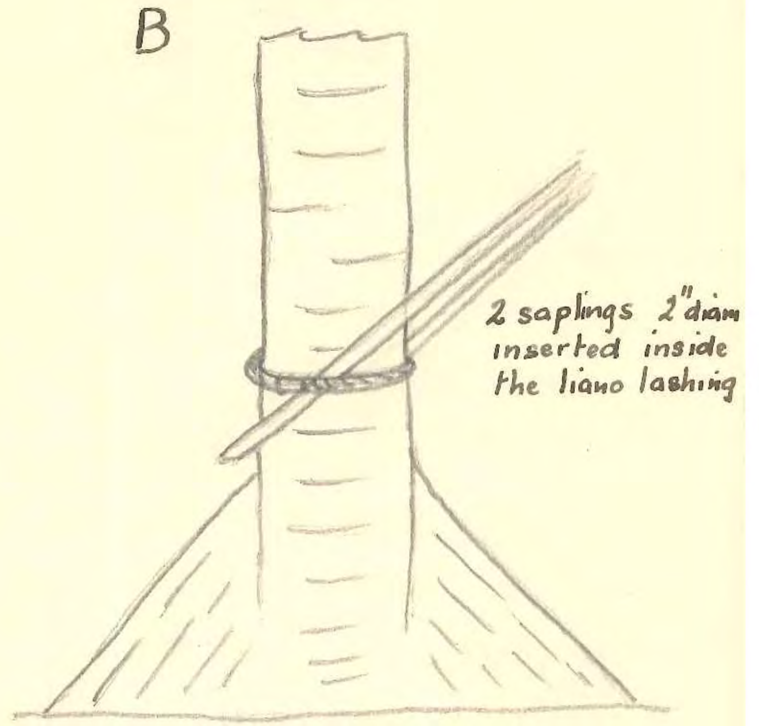
Practically every tree in high forest country is held more or less securely to its neighbour by strong thick lianos which, though they have their roots in the soil, soon make their way to the tops of the trees for light and air. Having nothing to aid them in going higher they begin radiating in all directions over the adjacent tree tops and they soon form a network of immense strength binding half a dozen or more trees in their grip. Not infrequently when it becomes necessary to cut down a single tree, at least three to five neighbours must also be felled before their combined weight can break the lianos, even if the trunk of each tree has been completely severed and they have slipped off the butts on to the ground. These tough lianos snap with loud pistol reports away in the tops of yet other trees and if attached to any weak or dead branches create a very real danger from falling debris to those below, for a distance of ten to twenty yards.

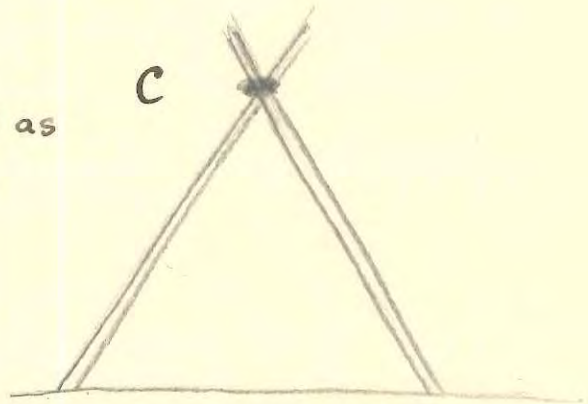
This method of field cutting reduces such danger to the minimum, as work can proceed fearlessly until the moment when the key tree begins to give warning. At the same time, it is a definite labour-saving device as it reduces actual cutting operations by one-third due to the uncut portion of each tree being broken by the massed weight of the key tree and that of all those pushed forward by its fall.

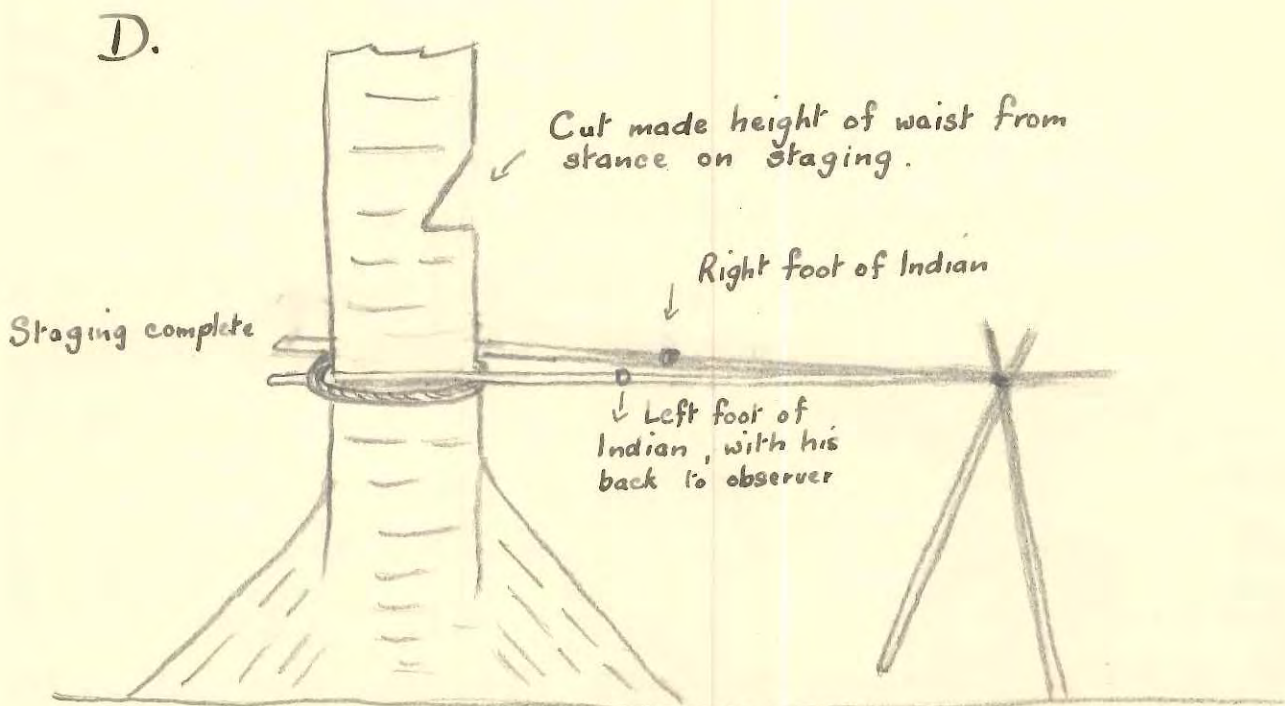
There are many trees in the forest that have enormous buttresses flanking three to five sides of the bole. These may begin at any height from a foot or two, to as much as twelve feet or more, and widening out at a 40° slope down to the ground. These buttresses are

Tree cutting - continued









generally some three to six inches thick, the wood being particularly hard and cross grained. It is almost impossible to cut trees so supported from the ground and the usual procedure is to erect a staging and cut the tree above the highest buttress.

The Waiwai with little trade with the outside world and a resultant paucity in iron tools uses his axe very carefully and sparingly: the less chopping, the longer the life of his axe, and generally a single tree with large buttresses is sufficient to condemn any site for a field - there is plenty of room elsewhere in the forests. - In selecting the site for a house his choice is more limited, as he must be close to permanent good water, have a fairly level, yet well drained spot about flood level and have a certain flood level route to the forest so as to reach his fields or go hunting, hence the Indian is often faced with heavily buttressed trees in clearing a site for a proposed village. I have repeatedly seen the Waiwai and other forest tribes felling such trees from a staging at twelve to twenty feet above the ground at a point where the tree is clear of buttresses and slightly less in diameter.

In tackling a heavily buttressed tree, the Indian first cuts a stoutish pole which he leans against the tree to be cut, to enable him to swarm up above the buttresses: sometimes he may find a convenient liano hanging down from the tree top up which he can climb. Having reached the required height, the Indian, usually assisted by someone on the ground, passes a long, strong, supple liano three or four times round the bole. The exact spot for the staging is selected, the band of lianos pulled as tightly as possible and the ends securely tied - Diagram A. Two strong saplings are handed up and their butt ends inserted at opposite sides of the bole between the tree and the lianos - Diagram B. Staging legs of two cross sticks are securely lashed together at the necessary height and set upon the ground - Diagram C. The two saplings already attached to the tree are then forced down inside the V at the top of this staging and secured in place - Diagram D.

The axeman, after carefully clearing a space on which to land if he loses his balance or has to jump down unexpectedly, climbs up on to the staging and takes his stance on the two saplings at such

point as an axe can conveniently reach the work and he begins cutting. When the incision has more or less reached half way through the tree, the man descends and the staging is moved round to the opposite side of the tree, where a second cut is begun a few inches higher up. It is no mean feat of dexterity to throw down a tree in this way, balancing gingerly high off the ground on two sticks that swing and sag to every motion of the axeman as he plies his axe in cutting. Cutting trees on such a staging makes for largely increased danger from falling branches and debris, when the tree does fall, as the axeman has to jump down to the ground before racing for safety and just these couple of seconds delay has led to nasty accidents and even death.

It requires about four days of hard steady work to fell all the trees in an average field. When the whole affair has crashed to the ground there is a vast tangle of branch and liano sticking high in the air everywhere. The axeman must lop off all such branches until he has a uniform mass of leaf and branch of some two to three feet deep so as to present a straight uninterrupted course for fire to devour when dry. Leaves and branches high in the air would escape the fire and only mean extra labour later on.

The work of preparing a new field up to the stage for burning calls for at least ten days of consecutive hard work, four in under-bushing, four in felling and two in levelling branches. Very few Indians can spend so long on any one particular job and the field is seldom ready under a month or six weeks. With the very best intentions there are countless interruptions: there is no game for food in the house and he must go hunting or fishing: his arrows get smashed in shooting game or are lost entirely and they must be repaired or renewed; he may have to accompany his wife to their planted field to dig and bring home cassava and vegetables; visitors may arrive, or he may be called away to another village: implements and household utensils may get broken and require his attention and all kinds of calls may be made on his time and energy, each a delay in finishing the field.

It is quite usual for an Indian to branch out on his own and to

cut and prepare his entire field alone except for the help of his wife who does the cooking, brewing of beer and other necessary duties. Often however one or two of his neighbours will come along and give him a few days' assistance or, if he is a man of substance, he may stage a drinking festival and dance and invite all the neighbours within a reasonable distance to come and help fell the field prior to starting the dance. The neighbours in such a case turn up at an early hour. Both grades of work, underbushing and felling, go on simultaneously, the women, youths and even the children, under a headman doing the underbushing: the men working on relays with the axes in felling. Such work proceeds rapidly and as a rule the field is finished, except possibly the final lopping of the branches, by mid-afternoon, after which the visitors turn in for a night's festivity.

Another common labour-saving device in field felling is to leave uncut a number, say about twenty to an acre, of slim but very tough strong trees of about six to eight inches diameter and spaced more or less equidistant all over the area. When the trees all come crashing down, the crowns of these uncut trees have to go also, but the trunks generally break off just below the branches and the bare stumps are left jutting up some ten to twenty feet in the air. When the field is ready for planting, yams are planted at the foot of every tall stump, which serves as a pole round and up which the yam vines can twine as a support in their need for height. If no support were provided these vines would sprawl all over the place seizing on anything handy to rise off the ground and would strangle to death such cassava or other plants as their tendrils laid hold of. A good yam vine can strangle all plants over a radius of several yards, but trained up a pole is perfectly harmless and occupies no more room than the hillock on which it is planted. These broken trees firmly anchored by their living roots make ideal supports, otherwise the Indian has to cut a pole, dig a hole and plant it, a very poor substitute in most cases, as the weight of the luxuriant vines catches the wind easily and the whole thing soon sways and generally falls flat on the ground.

All fields must be felled at such a time as there is a prospect of some four to eight weeks of uninterrupted good weather. A heavy rain soon after felling will do no harm, but once a field has reached a certain point of dryness, a sharp heavy shower causes the leaves to drop off and fall to the ground. The rain beats these fallen leaves into a compact mass close to the soil, which completely excludes the air and prevents proper drying in future. The more leaves in suspension among the three feet tangle of twig, branch and liano, the better the air circulates right down to the soil, thus assisting drying, and their presence ensures a hot flame of solid fire to advance right through the clearing, when everything except tree trunks and the larger branches is consumed. The better the fire does its work, the less work subsequently in clearing debris off the land before planting the various crops.

There are two seasons each year for cutting fields. The first is in the early months of the year so as to take full advantage of the dry weather in March and April and be ready for the first showers of the heavy rainy season, which lasts from early May till late August. As soon as these rains are over, field cutting recommences although on a much smaller scale, and the work must be completed as early in November as possible to allow proper drying and burning to take advantage of the short rainy season, roughly a fortnight around Christmas or New Year.

The Indian watches every change in the weather, once his field has reached a certain stage in dryness. Of course it is tempting to allow it to lie as long as possible as it will be just so much the drier, but too long a delay may find him caught unawares. I have often seen the men rush off at short notice to fire their field when an unexpected storm was seen to be approaching. Fire is generally started at several points around the clearing, fuel is piled on and it is attended until a good strong fire is going and it begins to eat into the mass in front. The Indian then goes off about his ordinary business allowing the fire to take complete control, as the intense heat generated makes it impossible to remain anywhere near the place. The best time of the day to set fire is as soon after noon as possible as the heat from the sun has raised the temperature of the branches

and leaves and makes for better burning, and by sundown the field will be completely burned, although certain trees may smoulder for days or even weeks.

The remaining work depends on how the fire has done its work. In the best cases, only a few days may be required to clean it up, junking up branches and smaller tree trunks, and piling them into heaps to be burned separately. The larger tree trunks are left untouched as being too much labour to remove, although later, some may be split up to make firewood when necessary. If the fire has not been successful, a great amount of work may be caused in cleaning up, so much so, that it becomes a moot point whether it will be less labour to cut a new field entirely. I have often seen fields abandoned completely from this cause and if it happens in the right season no harm may be done, but not infrequently the Indian may not get a chance to cut his new one. More than once I have known the wet season commence some months before the customary time in which every new field would have to be abandoned and the Indians would lose a complete season for planting. With little more than just sufficient at any time, the loss of their new fields throws them back on old fields for supplies, and these soon become exhausted. Those whose stocks run out first draw on those who still have and so it goes on, until no one has a thing to eat and they have to depend on the scanty produce of the forests to live on - somehow! Nine chances out of ten that is just the year an expedition turns up. I once dropped in on a tribe away down in Brazil in such a plight, where neither love, money, nor barter could buy anything except a few sticks of sugar cane, probably the most hardy of all the tropical domesticated plants. My party had had no food for days and I can still remember the pain in my jaws from squeezing that cane between the teeth in trying to extract the last drop of juice, in a vain endeavour to satisfy the pangs of hunger.

Once a field is burned, planting may commence at once, and cleaning up and planting often go hand in hand, the man junking up and burning, and the wife making hillocks and planting. The man invariably does the cleaning up and makes most of the hills also.

This last is done by hoe, or with chisel pointed pieces of wood, and means digging up the surface soil over a small diameter and piling it in a heap, in which they bury their short sticks of cassava or various tubers, and other hardy plants. Certain seeds, as their Indian corn, must not be planted until the first shower of rain and then planted at once to ensure good strong plants against the time - a few weeks later - when myriads of caterpillars appear and devour every vestige of new succulent greenery. Even a short delay may mean that the young corn is not strong enough to withstand these caterpillars, which eat it down right into the ground, and the whole crop is completely lost. A second planting is rarely a success, as in all probability the torrential rains will beat down in the soil all the tender sprouts as they appear. All Indians are very fond of corn and many cut a special field for it alone, although most of them are content to plant it extensively between the hills of their other crops. It grows tall and straggly, matures quickly and does the crop no harm unless planted too thickly. Corn can be eaten roasted or boiled, can be made into bread or meal, or fermented to make beer, so all Indians plant it in considerable quantities, but of all their crops, it is the most uncertain in yield, unless planted on just the right day of each particular year.

Few Indians in their own environment are idle or lazy. As in all communities, some are above the average in dynamic energy and some are below it, and it becomes more of a matter of comparison with their own standards than that of any alien race. There are some of outstanding personality, intellect and accomplishments in every tribe, men who always have good fields and whose barbecue always carries at least a little dried meat; there are a great majority of an average type of mental and physical properties, and a small minority of those below average, yet very few who can be classed as mentally unfit. Naturally there are some who do as little work as possible, but the daily needs of his family and the censure of his fellows - especially the women - force such to make every endeavour to conform to the customary customs and rules.

Indians generally marry young, and babies come along pretty

regularly for some years. Naturally, the expectant mother is incapacitated to some extent during pregnancy and for some months after birth, as the baby can only be reared from natural sources. During such periods, except during couvade, on the husband devolves many grades of duty, occasionally even that of preparing food, and the man who for years keeps a growing family supplied with food and every necessity of life has to keep busy. With so many calls on his time, the man can rarely devote long spells of time to any one particular type of work. Variety is the spice of life, and the Indian knows that pretty well and acts on it. The Indian adopts a moderate tempo in work so as never to become too exhausted by any particularly strenuous work, and shears off to lighter tasks as he becomes tired. By comparison with ourselves, the Indian is tireless and every muscle is in full training. I had occasion to take a series of tests of comparative strength amongst the different tribes, one of which was a small machine for registering the strength of the grip by the hand. I had to demonstrate its use, and my first squeeze invariably registered a high degree of grip, but each subsequent grip registered less and less each time. The Indian would register a considerable degree of strength at his first attempt, but he could go on practically indefinitely registering more or less the exact same degree of strength, in fact, after getting the hang of the gadget, many of them would raise the indicator instead of lowering it as in my case. I could always beat them on my first attempt; I rarely ever could better that, and at my fifth try, I was invariably a long way behind them. I could almost always beat an Indian over a hundred yards sprint, but over a three mile race, I was always thoroughly beaten.

Of course, in their work, there is a great lack of co-ordination and much misplaced energy in many cases. An instance is the distance, generally a mile or two, between their homes and their fields, which means a double journey of half an hour each way for everything that is required. It would seem that the house actually in the field would be an advantage, and occasionally one does find a home so built, but they find it becomes a playground for all the

children, to the detriment of the plants, which often get broken. It also offers an excellent chance for the greedy and less responsible members of the village to plunder such fruits as are arriving at maturity, and it places their whole wealth in food under the envious eyes of every visitor, who would think it quite in order to beg for everything in sight. According to tribal etiquette, they cannot refuse any such request, so the field is much safer, and more productive a good distance away.

Many Indians rest or even sleep for an hour or so during the intense heat of early afternoon, but in very rare cases only can the siesta be considered a habit. They take such a rest only when they are tired, but on most days they are steadily busy with some little job dependent on the need of the moment. Many of these light tasks seem futile, when judged by outside standards, but there is some need for his task as no Indian works for work's sake only. Sunset closes his labour for the day except such mechanical work as preparing various fibres and straws, or weaving some of their basketry which can be carried on by the light of a fire in the hut. There is a good deal of chatter in the early evening - the experiences of the day, the gossip of outside, and general discussion! Then there is the Good Night Litany, a little music on the flute, and if the occasion warrants, some of the myths and oral teachings of the tribe. Most Indians are asleep by 8 p.m. They are very light sleepers as a rule except when thoroughly tired, and practically everyone wakes up several times each night if only to push the fire together to prevent its going out, or they may, if asleep earlier, spend an hour chatting. As a rule, they sleep about eight hours in all. The more responsible members are awake shortly before the first streaks of dawn; the men to note the changing position of the stars by which they fix their various seasons, and probably to instruct the children and youth in the science; the women to prepare the first meal, generally some variety of porridge, which must be ready while the dawn is still growing. By the time the sun peeps over the horizon, almost everybody is ready to start the duties of a new day.

The women are just as busy as the men all the year round. Their

most important duty is the preparation of food, and they must cook at least three meals per day. As all the supplies are direct from the field or forest in a raw state, except in the case of certain fruits, a considerable amount of labour is entailed in its preparation as, for instance, the reduction of cassava roots to bread, which, including digging and carrying home from the field, means about ten different processes. The woman has to see to it that there is a steady supply of beer on hand for thirsty workers. She has to help plant the fields, and on her, almost alone, devolves the duty of all the weeding. She has to carry from the creek or water hole every drop of water that is needed in the house. She has to go out daily in the forest, split up, and carry all the firewood that is required. She has to keep the house clean and sanitary, outside and inside, and be at the beck and call of her lord and master, (as also all the children) the whole time. She has to spin miles of cotton yarn, weave hammocks for the entire family, make her own laps and her numerous seed and animal teeth necklaces and decorations. I have never known either sex completely up to date with, or ahead of their chores, and there is always something left to be done if they care to, but the woman's work is more of a daily routine than that of the man. She must cook breakfast every morning, whether she likes to or not, unless actually unwell. Above all, she has to bear children and rear them to the best of her ability with no assistance in the nursery. At night, she listens silently to the talk of the men, or whispers the myths and secrets peculiar to her sex to her daughters. Should she wake at night, she gets out some work, and many and many a yard of cotton thread I have seen spun by the flickering flame of the burning logs by her hammock, yet the women are cheery, full of spontaneous smiles and rippling laughter and ever ready to enter the lists of their customary badinage. As is the case with the men, the high spots of enjoyment in life are purely physical; satiety from food, the exhilaration of the drinking festival and dance, and sexual contact.

When a baby is born, some help as a midwife is generally called in from the more experienced women in the neighbourhood, but I have often known a young mother give birth with only her husband to assist.

The husband should and does go into couvade for the period general in the tribe, when he must observe various established customs, abstain from all violent exercise, and partake of a rigid diet.

For some months after birth, the Indian child of either sex is attended to with love, care, pride and even jealousy, especially if it is a first child. As soon as a child begins to show it has a will of its own, a difference in treatment sets in. The boy, within reason, must have his own way; the girl is gently but firmly repressed. A boy slaps his mother as any child does, and it evokes laughter or smiles as being indicative of his virility and how he will some day enforce his will on those around him. A girl does the same thing and is promptly slapped back, although quite gently, the mother slapping slightly firmer at each succeeding blow from the little hand, until the girl gives up and generally cries. The boy can lord it over the whole hut for the first few years, but the girl must from earliest infancy learn that she must not possess a will of her own. The first word the Indian child understands is "Don't". This is generally some euphonious sound and in several languages this word is the same:- "Ka", or more generally "Ka-ka". A slap, in the case of a girl at least, is often given with the word at first and the child soon learns that the sound means pain or danger to itself. It is amusing to watch some tiny crawler halt on the order with outstretched hand, in wonder as to the meaning, until it dawns on the little mind, and with a smile, the child crawls off after something else.

Child labour is general amongst all Indians. They possess few or no toys, and "Satan finds etc", so it is only natural that the parents encourage the child to do some task at the earliest possible age. As soon as it can toddle, the child of ~~any~~ either sex is encouraged to pick up some light article and hand it to the mother. The child just manages to pick it up, probably flopping on all fours in the act, but eventually staggers forward to be met more than half way by mother, face beaming with pride, when the child is almost certainly picked up in a close embrace, about the only demonstration of love known to the Indian, and the child's feat is described to everybody for days. As the child grows older it is taught to do various little jobs and is

proud of its responsibility under the stimulus common to the children of every race of imitating their elders. About the first practical lesson for the girl is carrying water from the creek. It is a very small quantity and a slow job at the first attempt and mother probably holds a little hand most of the way, but it is a useful lesson and soon the girl can go alone. The boy is rarely asked to do such menial work, but has to walk behind father to the work or the field as companion, as very few Indians will go out of sight of the home alone. The little lad is given something to carry home, and soon he is walking proudly in with a few sticks of sugar cane or some fruit. This carrying capacity is increased with age and strength, until the girl comes to full strength, and the loads that can be carried by many adult women are little short of marvellous. The boy, as he grows abler, has to accompany the father on hunting expeditions, and as custom ordains that no hunter carries what he shoots, the child has to carry home whatever is killed. Many a time, I have seen a father himself carry game that was too heavy for his little son, but at the last turn of the trail before sighting home, it would be transferred and the little fellow would stagger proudly across the clearing with it.

Children are seldom corrected physically, and the sarcastic stinging tongue of the parents is generally sufficient to enforce obedience to both personal orders and tribal customs, nor do the parents ever ask a child to do anything beyond its strength and power. One stands aghast as the sight of a father jabbing the most painful sting of a scorpion into the flesh of his barely five years old son, but it is to enure him to pain and discomfort, especially if that particular tribe hold stiff initiation ceremonies as the test of manhood, yet it is very rarely one comes across a case of deliberate cruelty. The following was, however, a case of real cruelty:-

A little girl was born to a Wapichanna family and the mother died soon after. The baby was taken over by the grandmother, a widow with a reputation for a vile temper and cruel ways, but it was some years before stories of the grandmother's cruelty became known. The child must have been about five years old when the grandmother brought her

in for medicine as she was almost continually crying. I was living then with the only other white man in the district, and he suggested taking over the full responsibility of the child, an offer very promptly accepted. The bairn was thin and lanky, suffering from continual headache. A few days later, the old lady, who was cook to our establishment, reported a peculiar formation on the child's head. Examination showed that a width of some three inches extending across the dome of the skull from above one ear to the other had been depressed by almost 1/8th of an inch. This we learned had been done by the strap of a basket, through continuously carrying much too heavy loads for the tender child, at the orders of the old grannie, the alternative being a severe thrashing.

Complete rest and good food soon made a great difference in the child's condition and appearance, and the headaches gradually disappeared completely. She grew up husky and strong, began to take an interest in work and anxious for her full share of it. The depression never disappeared entirely, although it became less pronounced. When I last examined her head, by which time she had herself become a mother, a distinct double edge, roughly 1/16th of an inch could be plainly felt right across the top of her head. It did her no harm however, and Sylvia, as we called her, used to glory in her strength. I have often seen her voluntarily staggering home with a load of firewood carried in the same old manner over the head by a strap; a load that would turn three hundred pounds on the scale - more than double her own weight.

Sylvia's subsequent return to the tribe may be interesting. For years we never so much as saw the grandmother, until Sylvia, well fed and cared for arrived at puberty at about eleven years of age. A month or two later we were wakened, just before dawn, by piercing screams and we sprang from our hammocks and rushed to investigate, when we found Sylvia yelling for help and rolling over and over on the ground in a fight with the grandmother. The servants and Sylvia slept in a house some yards away and it transpired the grandmother had arrived from nowhere quietly to call out Sylvia to speak to her. The girl, ignorant of who was calling, had complied, but indignantly refused to

obey the old grannie, when she ordered her to pack up and leave our station at once. Then the old lady seized Sylvia, hoping to drag her away, and the fight was on. Needless to say, the old vagabond left with a flea in her ear, and Sylvia remained, but the grandmother would turn up twice or thrice a year with some gift of food or fruit for Sylvia, and try persuasion. Sylvia hated the grandmother most cordially and generally left the house to hide as soon as she appeared, to keep out of the way of trouble. This went on until Sylvia was about thirteen or fourteen years of age.

To our utter amazement, Sylvia walked up one fine day to tell us she was leaving to return to her native home, and of all things to live with the grandmother. She was quite definite on the point and as some relatives were now passing through to her village, it was a good opportunity as she need not make the journey alone. No ! the grandmother was not there, but go she must and would, otherwise Sylvia stood tonguetied and silent. My friend knew it was easier to hold an irate muscular pig by the tail with a greasy hand than to keep Sylvia in that frame of mind, so he consented. We gave her a fair amount of trade goods as wages for the various services she had rendered while with us and she departed.

A week or two later, the grandmother arrived alone demanding payment for all the years she had been deprived of Sylvia's companionship and help. My friend brought all his powers of invective into play and the old lady left with an empty basket. We learned however, that Sylvia, according to tribal custom, had been affianced as a child to a small boy in the same village and that this youth, now a full grown man, had come in a week or so previously to have a look at his prospective bride. Both were satisfied, and Sylvia had fallen in love right away. After getting our consent to leave, she had gone along with the supposed relatives to a nearby creek where she found her fiance waiting, and the marriage was consummated the night she left.

To take Indians, male or female, away from their forest and tribal surroundings, and try to introduce them to work on a civilized scale is simply asking for trouble. It is a great temptation to many, as

the Indian's complete ignorance of values can be exploited, and they are frequently made to work for periods of varying length for extremely low wages. Periodically, I would go out to the coast and pay off my men in cash and in some cases they regarded bank notes as of no value. Once I paid off a gang with a certain number of notes but also with some twenty shillings in change. They placed the silver in the notes, carefully wrapping up the notes. Later on, when they went into a shop, they undid the package and flung the notes on the floor. They had served their use as a temporary wrapping to the coins, but why carry a piece of paper around ? In the associations with white people, paper is of little apparent value, being thrown away almost daily in some way. The very first paper seen is treasured, as when I gave a photo of our reigning Monarch to the Waiwai Chief on my first visit. When he died some years later, the photo was returned to me intact and perfect. They may treasure up a few of the more gaudy papers used as wrappers round certain goods, but familiarity soon breeds contempt, and the raw untrained youth on his first visit to shopland has to be carefully warned as to the value of bank notes.

The Indians can be, and often are robbed right and left when paid in cash, until they acquire some knowledge of the various forms of money and their different values. I remember one Indian, who proudly showed me a penny for which he had given a shilling in exchange. He had got a bigger coin, so it must be a good bargain and he was quite happy. Such ignorance is soon corrected however. Each man in a party finds out some fact about values and each individual discovery becomes general knowledge when they have a chat at night, yet even after several excursions to the outside world, they can make some remarkably silly mistakes.

I had a man working with me, who had spent considerable time as a huntsman on various timber grants and gold mines; he spoke English fairly well and had a fair knowledge of money. I paid him personally the sum of one hundred and twenty dollars as being due to him, and later in the day, I met him in the street with a long pole over one shoulder, at the end of which, dangling by a piece of string, was a cheap American clock. "Look ! Boss !! I've got a bigger

tick-tick (watch) than you", he shouted in glee. I duly admired it and casually inquired what it had cost. Imagine my consternation when he informed me he had given his entire cash for it!

Indians, when not sure of just what values in money are, have a habit of holding out their entire wealth in the cup of both outstretched palms placed side by side, trustingly allowing the shop assistant to select the necessary coins to pay for the article in question. My man had no knowledge of the value of a watch, and the shopman's pert demand, "One seventeen, please", meant nothing, so he held out all his money in his open hands. The shopman cupped his hand beneath: my man opened his, and away went all his money. I went to the shop to investigate, only to find the rascally Portuguese assistant had immediately cleared out, and there was no remedy.

The Indian's natural talent is hunting, and to any passing expeditions, or where mines or other work are in progress in the forests, their services as huntsmen are invaluable for procuring successfully a fairly steady supply of meat in place of the monotonous tinned and barrelled stuff in general use. About the only other work the Indian is capable of is rough unskilled work with pick and shovel, or the axe and hoe, but the steady application, and the long hours demanded by the outside world are so monotonous and different from what he has ever been accustomed to, that most Indians soon become fed up, if not actually dissatisfied and restless. Either the ingrained love and desire for change, or intense nostalgia set in and overrule all other considerations, and he will probably disappear during the night, leaving his wages or payments unclaimed.

Apart from the monotony and strangeness of work, the difference between the food of civilization and that of the tribe are the principal causes of this nostalgia. It is generally on far distant fringes of civilization, that the Indian finds employment, and there the food is often a monotonous diet of rice and cassava in some form, with salted beef, pork or fish from a box or barrel. In his own home, cassava is the staple food, but his ability as a planter provides him with numerous side dishes, and changes, while the adjacent forests and streams furnish an unending variety of game, fish, fruit, or things he considers

as delicacies. I have often heard an Indian say he had not eaten a certain form of game for some time, and he must go hunting specially for it. This may mean a long trek into the forests, as for instance to secure a few loads of Brazil Nuts. I have known village after village close up their homes to go some 40-50 miles into the forests to gather a supply. Such a trek takes on the aspect of a general holiday, free from the cares of house or field. They move leisurely along over a few miles only per day, taking every advantage of game en route or any fruits in season. The women also have an enjoyable time, as they are relieved of many home chores, the attention to their cultivation and the carrying of supplies from the fields. They carry as much concentrated food as may be required in the form of cassava bread or meal, and their main work is cooking, the everlasting preparation of food, but it is much simpler than at home. Both sexes, however, find much along the route which when collected can be carried home for use in their domestic economy for months to come. When they eventually return home, they are invariably heavily laden, not only with nuts, but barbecued game and a weird assortment of leaves, lianos, barks, woods and even stones that some day will be of considerable use.

I was working once in the high forests with some 60 Indians at a distance of fully 200 miles from their tribe, on a contract of considerable importance, that called for some four months of hard, steady, intensive labour, in order to finish on a given date. For some two months, the men worked splendidly, then they seemed to wilt. Progress became slower and slower each day, and I realised I would have to do something, or I would probably find a deserted camp some morning. There were no complaints, question them as I liked, but I got an inkling from a conversation I heard round the camp fires one evening, so under the pretext of a necessary survey ahead with four men, I declared a general holiday for two days, in which all hands were to scour the surrounding forest to any possible radius, in quest of fruit and game. I met a drove of wild hogs on our survey, and shot sufficient to load up my men so heavily that we had to cache a good amount some miles from camp. When we returned, we found each party had been equally successful each in its own line, and a third day's

holiday was indicated to bring in the surplus, to gorge to capacity, and to digest. On the fourth morning, every one turned out to work with his old snap and laughter, perfectly happy again and satisfied. At the end of another month, I had to repeat the holiday hunt experiment, which proved just as successful, and the result was that the work was completed well ahead of contract time, to the astonishment of the entire district, where the betting had been 100 to 1 against my getting the work completed with my Indians. I have never driven my men as I did on that work, yet they even expressed regret that the work was over, when I handed them their wages.

I have explained at length some of the underlying needs and currents of life that tend to give rise to some of the peculiar customs and habits of the Indians. From sheer ignorance of cause and effect in their lonely untouched lives, most people class these people as a lazy, thriftless, treacherous, nomadic lot of vagabonds. No one can say they are idle or lazy, although they may produce only the necessary supplies according to the needs of each. Actually they are hardworking, missing nothing as a rule, and possessed of very acute powers of observation and a high technical knowledge of their environment, and the majority of such economic factors as affect the art of living, with little help from outside.

They may appear thriftless, but that is largely because they are socialists in practice rather than in theory. No Indian can refuse a request from another, unless he really has not the article asked for. If such be a manufactured article, it enters the realm of trade, and becomes subject to the tribal custom and habit of barter, but if it is something in the way of food, whether the product of the field or chase, it must be given free with no condition attached, except the communal understanding that, through change of circumstances, the giver of to-day may be the beggar of to-morrow, when he will receive on similar terms. The Indian has no system of transport from his hidden fastnesses, and no trade with the outside world beyond such as will secure a minimum of necessary iron in some form. His major product is food of some kind and this is perishable, and as visitors are few and often many years between, naturally he produces to the best calculation, only sufficient on the average for the annual needs

of his own family. Climatic conditions and various other factors may affect his calculations very largely, both on the plus or minus side, for which outsiders should make due allowance in pronouncing sentence.

The Indians are nomadic to some extent, generally through circumstances beyond their control, which though stupid to us, are very real to them. 'Treacherous' is a poor word in the light of centuries now of persecution. The Indians of South America were in the main non-aggressive, if not actually hospitable as far as their limits went, to the first pioneers of civilization, an attitude soon taken advantage of. For centuries, they have been so harried by newcomers in search of wealth and cheap labour, that their every form of tribal government or co-operation has been disrupted and broken, until to-day the tribe must hide in some deep, almost inaccessible part of the forests, or face absorption or extermination. It is small wonder there have been sporadic retaliations, generally ambushes, as the wooden arrow is of little use against the steel or bullet of the oncoming hordes.

All Indians, on first contact, suffer from a dreadful inferiority complex. Little wonder ! There steps into the clearing an apparition with the semblance of a human being, hob-nailed boots, puttees, long trousers, shirt, hat with a long knife pendent from belt, and across the shoulder is thrown a gleaming weapon (a gun) completely unknown. The colour of its eyes and skin are strange, and it emits a weird, unknown, nauseating aroma. (To himself, the Indian is odourless, the white man smells, and the negro stinks)! The person is something completely beyond his knowledge, to be met with suspicion, awe, fear and almost reverence, but it is very rare, if ever, that the tribes who view the white man for the first time, put up immediate and active opposition. I have, personally, made the acquaintance of the following tribes in the most distant recesses of the forests in the North of Brazil:- the Waiwai, Parikuta, Mapidien, Waiwe, Chikena, Kumayena, Tonayena, and Diau, not a single individual of whom had ever seen a white man, with one exception. The exception was an old man, who as a child, saw Sir R. Schomburg descend the Trombetas River. The tribe had notice of Schomburg's approach, and the women and children of the village were sent away into the forests to hide while the men and old women remained to receive the party amicably. One woman and her

young son were put in the branches of a very high tree from which a full view could be obtained, so as to be able to signal to the other women and children as to what was transpiring in the village. This young son was now the old man I met, and he certainly was the most frightened Indian I have ever seen, on our unexpected appearance.

Not a single member of these various tribes gave me the least worry or annoyance, beyond standing around in a group, fully armed with bow, arrows, and such knives as they possessed, for some hours. I had been warned of certain danger and probable extinction from all these tribes, and I was on the outlook for trouble. In most cases it was difficult to get a lingual contact at first, but a display of a few articles of barter, the presence of other Indians with me and a courteous demeanour according to tribal ideas, soon gained the confidence of even the most stubborn, after which it was plain sailing. My party had some six to eight languages at its command, and in a day or two collectively we picked up enough language of each tribe to be able to understand them. Amongst the Diau tribe, in or immediately South of Dutch Guiana, I was able in a few days to pick up their "talkey-talkey", the go-between language of the Bush Negroes who intercept them from reaching the sea front and civilization of Cayenne. To me, the idea of such Indians holding for ransom any people such as Col. Fawcett, or Aviator Redfern (who actually crashed in Diau territory) is completely untenable. For one thing, they have no more idea than Adam what ransom is, or means.

Subsequent relations between any visitors and the different tribes depend wholly on how the tribes are treated. In all cases, fear or shyness disappears and it is up to the visitor to deal fairly and squarely with them, backed by a little firmness and tact and so guide the relations and impressions, now being made for the first time in history, into the proper channels of respect and confidence. Familiarity breeds contempt, and the clay of the feet of the almost godlike visitor soon emerges. Very, very few white men can ever hope to equal the Indian entirely in his own environment. His powers of observation and local knowledge are constantly at fault, hence every Indian soon appreciates his own

superiority in many practical lines. It is the tribes that make most contact with civilization and begin to ape its vices (usually inevitable) who from an inferiority complex, swing to an obnoxious extreme and become cheeky, impudent, immoral and rowdy, but if the wild unsophisticated tribes, when met, are treated fairly and honestly with some degree of respect for established law and custom, it has been my experience that the visitor could wish for no more faithful helper or agreeable companion during his wanderings in the forests.

No.....252.

Observation !

The teachings and mode of life of the Indians of the forests bring all their senses to a high pitch of observation and receptivity. Of course there are varying degrees, running from poor, through fair to good, in different tribes, and individuals, just as amongst every nation, but the senses of even a low standard make the average white man feel ignorant in their keenness and variety. The mind also seems to become of almost photographic sharpness in its reception and retention of facts presented through the various senses.

The eye naturally is the most important organ of observation, in that it deals with objects up to the limit of vision whether in motion or otherwise. The ear comes next, and the other senses a good way behind in conveying impressions outside the body to the mind. Taste, smell and feeling play quite a part in the Indian's habits and mode of life - far more so than in our case - but small by comparison, yet at times they do convey impressions that astonish one. In a camp once, I noticed an old Indian standing with his eyes closed, sniffing repeatedly. "What on earth is wrong with you?" I asked. "There is a snake somewhere", he replied, "but the air keeps shifting and I cannot locate the direction". He closed his eyes in case vision might bias his mind, and so left smell to locate the snake. Soon a decided breeze gave him the true direction and sure enough a snake was found coiled just beyond the edge of the camp. I could not detect any peculiar smell, but I found the snake bulging badly in the centre from a recent feed; in this case three good sized frogs which had been swallowed, and I think the decomposing meat in the stomach may have caused some peculiar odour which attracted the man's attention, backed by some previous experience perhaps of a similar nature.

Most of the tribes I know frequently fill in a leisure hour with tests of their powers of observation and knowledge. These are often very difficult yet most amusing and instructive. I have repeatedly witnessed these when I have been delayed in a camp, though

generally when on trek, at such a spot as had been used by previous travelling parties as a camp. The ideal spot for one of these tests is a recognised camp on some long route, where every party passing must spend a night, such as a point midway between two villages some 30 to 40 miles apart; a distance too far for making it in one day unless under a forced march, but an easy journey when done in two days.

We arrive in the early afternoon, some 6 to 10 men as carriers of an average of 18-20 years, and a couple of elderly men of 40 to 60 years old. The boys are not fatigued; we have shot plenty of game along the route; it is an ideal evening, and everyone is brimming over with good spirits and pep. Round any old camp there is much litter left by previous campers:- bones, feathers, tufts of hair from the various game shot and cooked there, and scales of fish, pretty much as you would find paper and orange peel round any camp at home. A man stoops down, picking up some bit of refuse - a bone or a feather - and the test or game is on. "What is this ?", shouts the man who has picked up the bone and almost at once every Indian calls the name of the beast or bird it comes from. They must also name the correct part of the body of which it forms part. If a feather is held up, they must name the bird and give the actual part; wing, tail, back or breast, ~~of the bird~~. A fish bone or a scale may be shown next, although these are often so tiny and so delicate in size, structure and variation, that they must be passed round for closer inspection. Each Indian receives such bone or scale, turns it round and over, then silently passes it on till all have seen it, when the fish will be correctly named by all.

I once made a collection of fishes for Harvard University in which I was confined to those species of not more than eight inches in length. I sent forward no less than 150 species, but there are scores of other fish from that size to those some seven feet long. Practically every variety of fish is eaten. Preference is given to certain varieties according to taste, freedom from small bones or quality of meat, but, hunger being good sauce, there are times when

almost every fish I know is eaten. It shows no mean knowledge of anatomy to distinguish practically every fish by a scale, a side bone or a vertebra. Each fish has its own peculiar shape of bone or scale, a slight difference in size, texture, or the corrugations round the exposed part of the scale, yet they will generally name it after as cursory a glance as I would require to name the average printed word of two syllables. Add to that, that they know the bones of every bird and animal, can name any local bird by a single feather (and a recent authority computes not less than 3000 species in the Amazon forests) or any animal by a single hair, and one must admit that the standard of intelligence and observation is very high.

The ultimate end in these games is to find something that baffles every one to say what it is. On finding something strange, the onlookers may hazard guesses but the fortunate finder gives no response until two or more have definitely given the correct name. If the article cannot be correctly placed, the finder is called upon to name and describe what it is derived from. Every man must then see and examine it carefully to decide if such description is true, and woe betide the finder of such strange article should he have made a mistake, as he will be laughed at and ridiculed for weeks and months afterwards. He may even be called by name after the article all his life following such a mistake.

Indians class all impressions into three categories; the good being something useful or beneficial in life; the bad being that which may cause harm or pain, and the indifferent,- this generally having no very active bearing in any way on life. It is really remarkable how much they know of many things that have little effect in either way on daily life. I was once asked by a friend to make a small collection of any migratory butterflies I might come across and to collect all possible facts about their various cycles of life and history, as they were coming into prominence

in science as the friend or foe of economic botany. I was rather doubtful of what data I might secure as butterflies can scarcely be said to have either much scientific interest or economic importance to the Indians. I found most of my men, however, quite conversant with the complete life cycle of all the various migratory butterflies met with over a period of six months. They knew the special variety of tree each butterfly laid its eggs on. They showed me trees denuded of foliage, the work of the caterpillars which subsequently became butterflies. They knew the form of chrysalis and where to look for it. They assured me a certain variety carried its own particular variety of egg and larvae. Subsequently, careful observations by scientists have proved the Indians were right in every case.

The Powis - the largest and most prized feathered game in the forests - has an invariable jet black plumage, with the exception of a few feathers on the under part of the body and part of the crest in the case of the females, which are white. I was once travelling up a very remote river many, many miles from anywhere - even an Indian village - when we flushed a covey of Muscovi duck. The party consisted of myself and four Indians in two woodskin canoes. We had met no game for the morning and as the sun was well nigh overhead it was imperative that we either shoot something or go hungry. The ducks alighted some quarter of a mile ahead on some exposed rocks and it was quite impossible to stalk them in our woodskin without again disturbing them, so I jumped ashore with my gun to steal through the forest in the hope of getting a shot at them. I had gone about half the distance when I ran into a flock of powis and, as a bird in the hand is better than a few wily old duck on a rock, I got in a right and left and bagged two. On picking them up I found, to my surprise, that one of the birds had two completely white wings, something I had neither seen myself nor even ever heard of. I was close to the river, so

scrambling down the bank I signalled my men to come along and pick me up again.

It flashed through my mind that here was a good chance to test the knowledge of my boys, so I pulled out a couple of the white wing feathers, broke off a few twigs and branches to cover up the birds carefully so as to leave no visible clue or indication of what I had shot. As the woodskins came closer the men shouted "What have you shot ?", and my only answer was to wave the white feathers. At once the men knew I was putting up one of their tests and began giving me every bird they knew that had white feathers. My silence showed they were wrong and as they pulled alongside, they asked to handle and inspect the feathers. The first man looked at one carefully, hitting it a flick across a forefinger and with an, "I know", passed it on. Each boy did the same till all had handled the feathers when they all said "Powis" ! Not one of them had ever seen a powis with white wings, yet they knew by the texture and strength of the barb of the feather that it could only be a powis, however novel and unknown, which decision, prompt on the spot, showed both keen observation and no small degree of reasoning. All the white feathers were carefully collected and treasured. When we got back to the tribe most of the feathers were passed on to special friends and for several moons afterwards, I saw them stuck ostentatiously in the hat or the hair of the proud possessor.

I was in the habit of sending down every year to the nearest town on the coast a number of boats, manned by the Aboriginal Indians of the Wapichanna tribe. In these I despatched all the saleable produce I had collected in the district and they brought back such supplies as I required. The men had to spend a few days in town waiting, whilst my agent purchased such goods as I had ordered. They also drew their pay in cash and purchased whatever they fancied for themselves. Although well fed and housed when

in town, some of them discovered a cheap restaurant where some highly seasoned stew seemed to tickle their palate, and it became the regular routine of every party sent down to have at least their mid-day meal there. On their return up country it was most amusing to hear them smacking their lips or tongue, a sure sign of gastronomical pleasure and telling the less fortunate of the delights of "Chopsuey" as they called the stew. This clucking sound by the tongue is made by turning the tongue against the roof of the mouth and sucking to create a vacuum. The jaws and mouth are opened quickly and a loud "pop" results, such as is made by a tight cork forcibly and quickly withdrawn from a bottle. The sound is general amongst all the tribes and is used when any taste is peculiarly pleasing at a meal, when the peppers, which flavour almost every dish, are particularly hot, or as an indication that the person eating is completely satisfied.

On one occasion I sent down some 30 men, the majority being young men making the trip to the coast for the first time, under the charge of a couple of trained steersmen and a few elderly men, who, knowing the ropes, would look after them carefully. The first day after arriving in town they must all, of course, march off for breakfast on this marvellous stew. They were soon all busy wolfing it down, when a boy pulled out a bone. One glance was enough ! He gave one yell, "Aramerek" (Dog), flung the bone on the ground and tore out of the place, followed by every man of the party. I had no means of ever finding out if some part of a dog had actually been served up to them, but I do know that from that day onward no Indian could be tempted to go near any city restaurant that specialised in stews or meat of any kind. For years afterwards it was a standing joke in the tribe if anyone lifted a bone from the communal pot and looked at it a bit carefully, for someone to shout "Chopsuey" whereupon every one present would go into paroxysms of laughter.

Another favourite test when on the march is to see who can

first locate some plant, bird or insect, especially when travelling by river. Paddling day after day becomes purely mechanical, thus leaving their minds completely free, their half dozen senses to function and their tongues to wag - the latter often extremely exasperating as it generally impedes progress (the more the tongue wags, the less the paddle moves). All Indians are fond of Iguana Lizards as food. At certain seasons, these lizards grow very fat, and during the rainy season or immediately after are considered a great delicacy and are eagerly hunted. During the dry season you can look in vain for an iguana. They are away somewhere in the tops of the high forests attending to the duties of lizard life and are seldom found, but directly the rainy season sets in they come out in numbers along the hundred foot screen of greenery that lines both banks of most rivers. The forest bordering a river is generally sheer from the high top to the water, but a dense growth of creepers and lianos find root on the exposed bank and these climb upwards, seizing tree trunks, branches and twigs in the struggle for support and a place in the sun.

These vines form a dense, frequently impenetrable screen right from the water's edge to the top of the forest, probably 100 or more feet in height. Every vine leaf is set at right angles to the plane of the forest to catch all the light and air possible, and so dense and close are they to each other that it forms one continuous blanket of green vegetation, through which, here and there, only at a gap you may catch a peep of a giant trunk or a spot of the comparative black of empty space in the forest behind. It is on this blanket of greenery that the iguana delights to live during the rainy season. Paddling slowly up stream in an open boat, the men love to get up a test as to who can spot the first iguana. They will do this for an hour or two - all day if you'd allow them - and it is almost uncanny how they will pick one out. The iguana has the power of taking on the exact colour of his green surroundings, yet an Indian will spot one, perhaps the head, the t

tail, or even the fringe of spikes that decorate the back - the only visible part just poking through the leafy screen 100 or more feet above the water. To European eyes it is almost impossible to distinguish the iguana even when pointed out with a rigid finger and especially so if only a small part - say the head - is exposed to view.

Of course every iguana seen must be shot, and if killed they sink almost like a stone on touching the water, but can swim like a fish if a spark of life remains. As the forest bank almost always overhangs the river, the iguana when shot falls in the water. There is quite an art in securing the shot iguana as there is the drift of the running water to calculate when he does fall, and to know just where he will drop. The iguana is generally very shy and wary and often dives at the least noise or movement so after one has been located, the boat has to be cautiously and silently manoeuvred into position for a shot.

When the boat is in position, a naked Indian slips carefully over the side of the boat making no noise and as few ripples as possible. He sinks silently out of sight and swims beneath the surface of the water until he thinks he is directly under the iguana. His head gently appears, when, if necessary, a swift quiet stroke or two places him in the required position. He gives the signal and the arrow or gun is discharged. Down comes the iguana, often enough, right into the hands of the waiting Indian, but even with a gun iguana are difficult to kill outright and may have sufficient life left to spring outward or sideways, when they may drop several yards away; or a strong thread like vine may deflect the descent and thus they often fall where least expected. Like a flash the Indian notes any such deflection from the perpendicular and is off to meet it, but often the iguana hits the water with his pursuer some distance away. The Indian has noticed the angle at which the lizard strikes the water, as also the direction and strength of the current, and he dives, to swim the quicker, open eyed, below the surface. There is a tense silence,

then the water breaks, probably yards away from where the iguana fell, and four times out of five the Indian has it in his hand. One has to admit this is a feat by no means easy of accomplishment as many an outsider has proved through ignominious failure.

In going upstream, the boat naturally hugs the river banks as much as possible in order to evade the stiff current as it means less labour in breasting the stream. There is a little white cap bird who always seems to live along the tangle of branches a foot or two above water level. When paddling only a few feet at most from these bushes you often put up one or two of these birds who are seldom shy, and they keep hopping from branch to branch only a few yards away. They are rather jokingly called "Piaiman" (Medicine man) from a none too serious belief that they can tell what is going on around the homes of the men probably many days journey distant and that they answer any questions put to them - silence, a single little "tweet", or "tweet tweet" being the answer. One of the men asks a question, but gets no answer; another asks a different question, "tweet" comes the reply, meaning "Yes" to the question. A double "tweet" is more definite. The questions at first generally refer to affairs of the home and welfare of relatives, but soon some one asks a ribald question. "Have you seen the young wife of Deer's Oar ?" (one of the boatmen) "Tweet" comes the answer, meaning "Yes". "And is she making love to all the youths of the village during his absence ?" "Tweet, tweet, tweet" is the reply and everyone is convulsed with laughter.

All Indians believe that once men could hold intelligent conversations with all the birds, beasts and insects of the forest. The older men say this ability is still enjoyed by a few, but that most people have lost the gift through forgetfulness and a looser habit of living. There is another bird, the Tiger Bittern, which from the varigated colours of its breast is called the Leopard. This bird has a myth attached to it and is supposed to answer questions, although less on human affairs as on its own. The questions are generally such as:- "Nephew, shall we go hunting

wild hogs ?" "Shall we go and burn our field to-day ?" "Shall we stage a dance and be merry ?" To these the bird may answer nothing, which means disdain of the question, or it may give its deep long drawn "Ha-a-a" in reply. The men then hand out satirical remarks about how untruthful the answers are, since everyone knows that the bittern can only spear fish with its bill and is no use at any of the work proposed. Then someone says "Brother-in-law" (or any term of relationship) "let us go fishing". Periodically the bird gives quite a different call: a rapid "Ha-ha-ha" instead of "Ha-a-a", and if the questioner gets this as his reply he is in great glee as showing his perspicacity and ability to handle successfully such a strange relation as the bittern.

Indians travelling through new and unknown territory note every feature on the way and memorise these sufficiently so that if they pass that way again even years later they can more or less follow the same route even if the old trail has completely disappeared. If the journey is made by river, each bend, island or rock is memorised on the route. The Wapichanna tribe are the great travellers of my acquaintance, and they, or the Atarods whose territory they eventually took over, had, since time immemorial been in the habit of going down their river to trade with friendly tribes or people on the coast. The ordinary woodskin or even dug-out canoes were too small and frail for their purpose, so they evolved a very suitable craft by widening a dug-out by pulling the two sides wider apart after heating with fire. Then they hewed out long broad thick planks that would reach completely from stem to stern, making them fast by means of lianos passed through holes made by the usual method of fire directed by the breath through a long thin vegetable tube. In later days iron nails came into request and were eagerly purchased. They had various gums which set almost like stone, and plenty of stringy bark, hence it was an easy matter to caulk up any leaks with bark, and pitch them over with gum. This method gave them a safe serviceable craft, large enough to carry 6 - 10 men with full supplies for a two months'

journey, their baggage, and such goods as they had to exchange in trade.

Their river was beset with countless difficulties on the 300 or more miles to the coast. There were many different channels that had to be followed according to the height of the river; there were dozens of nasty dangerous rapids and falls, hundreds of islands, and innumerable rocks stretching over miles and miles, to strike one of which might mean disaster to the expedition. An intelligent Indian after two trips as a paddler up and down the river would know the route completely, when he would be promoted to bowman (assistant steersman) and after a couple more trips in this capacity he could be made steersman or captain when he would have full control of the boat and be solely responsible for the safety of the men, goods and boat under his control.

The Aboriginal Indian makes by far the best captain or steersman on these dangerous rivers, of any race I know. Not only has he memorised every rock and danger point, but he seems to acquire an uncanny knowledge of the various currents and force of the rushing river and how best to take full advantage of them. The Indian is always cool and collected and never loses his head in the proximity of danger. He will shoot a dangerous fall, if at all practicable, with an ease and a minimum of effort that no other race can attain. Standing on a tiny platform of a boat, probably some 35 feet long with two tons of cargo aboard, manned by 12 - 15 men with all their baggage and food for the long distance, he holds the top of a steering paddle in his left hand. This paddle is lashed somewhat loosely by rope to the side of the boat, the blade going down some four feet in the water, while the shank reaches about the shoulder level of the steersman Just before entering the top of a dangerous fall the captain invariably wets his feet and the place on which he stands, and the paddlers wet their hands. This gives the captain a better grip with his feet if called on suddenly to brace his full weight on the paddle, and the men can handle their paddles better with wet hands. Then he quietly gives

his orders to the men on either side as paddlers and to the assistant steersman standing with another large, though loose, paddle in the bow of the boat. Then they swing into the fall; they skirt with a three inch margin of safety a horrible jagged rock; a slight turn of the wrist and the boat sweeps hither and thither in the welter of racing tumbling water, missing by inches rock after rock to strike which means a smashed boat; the total loss of all cargo, food and baggage. In a moment or so they are clear of the fall and everybody is laughing.

I have run these dangerous falls scores of times and with a first class steersman it has always been a source of admiration and envy to see how effortless and easy appears the demeanour of the person in charge, a slip of a man rarely more than ten stone in weight on whose ability depends not only the safety of the boat and everything on board but the lives of the entire crew and passengers. I have repeatedly done the journey of more than 300 miles without shipping a drop of water or touching a rock on the whole journey. Over a period of 20 years I only lost one boat and rarely ever had to have any repairs effected. The boat lost was entirely due to carelessness in a minor fall a few miles distant from my main station. On that occasion the captain who had purchased a wife from a tribe down river had asked and been given permission for her to go down river in the boat to join her own tribe, a short journey of about two days. The captain frankly admitted that his wife had spoken to him half way through the fall and that he had bent down to listen. This momentary distraction was his undoing as immediately they crashed broadside into a rock, the position of which he knew to an inch and with a wide clear channel at one side. In a second of course the boat was under the water and swept away by the fierce tumbling waves. Then it was every man for himself, and fortunately every person on board reached the bank without mishap and in safety. The boat, cargo, baggage, food and everything was a total loss; nothing being recovered. Apart from the loss to each of the crew of their clothing and gear my loss was something

around fifteen hundred pounds (£1,500). This is one reason why I never allow any woman to travel with my men in a boat of mine.

All Indians seem to have a sixth sense: that of direction. No matter how you may twist and twine around on a river or through the forest, each man can at any moment point out the cardinal points of the compass, or in which direction the camp lies. All Indians have only two points in their compass, East and West - the rising and setting place of the sun ! From these two points it is easy for them to get a bearing of any degree they like on either side. The sun of course in the clear tropical skies can be used as a point to determine direction, but it is not the sun they go by because on a dull, dark, sunless day or a starless night they can unhesitatingly point in the right direction every time. Times without number, I have gone out shooting in the forest with an Indian, frequently stepping off my boat into untrodden, unknown forest. A short distance after starting the man would stop to divest himself of clothes or superfluous ornaments, which he would hang on a low branch of a tree, to pick up and don on our return. Then we would proceed in a large circle, following the line of least resistance in the tangle of liano and sapling. We would make no marks in route, dodging under or round all obstacles, stalking silently along. Invariably the Indian would close the circle at the exact spot where he had left his belongings ! We would have been on the prowl for a couple of hours, traversing probably three miles of a circle, yet he would walk straight up to the point where we had started from.

An Indian never gets lost in the forests, at least I cannot remember a case. I have known a man who undertook to go via some new route to a neighbouring village mistake a particular creek as the one his objective was located on, but he would never be at fault very long. I have had to make long journeys of inspection in the forests cutting to a compass line for days. All that was necessary was to show the leading linesman the direction and he would keep on quite straight with only slight deviations on either

side, generally due to difficulties immediately in front which he wished to avoid. I have had raw Indians cut a line for 20 to 40 miles with no assistance, on a line pointed out by me. Later I would have to make a time and compass survey of the work and always found it true, when plotted out, in the direction given. In this I am speaking of the adult man, but the sense of direction is not so complete and certain in the youth in his early teens. Some of these youths often wished to accompany relatives on the journey by boat to the coast, and I have known a few of them who would get temporarily lost when hunting in the late afternoon after camp had been fixed, but they always found their way back eventually. A shell or horn is generally carried in each boat to give direction in such cases, or a gun may be fired if they possess one. Boys who go astray are always subject to much ridicule. They learn the lesson and very rarely repeat the disgrace.

There is one very peculiar sound heard periodically over the greater part of the country lying between the Amazon River and Atlantic Ocean, an area comprising the whole of the three Guianas, Venezuela, and a large part of Brazil. This sound is well known, as practically every traveller who has had to make a lengthy stay in the forests has heard it and repoted it, and suggested possible causes. The sound is a sharp short explosion very like the noise made by a heavy artillery gun fired some miles away. It is invariably just a crisp report; once only and with no echo, rumble, or accompanying sound. Most travellers put down the noise to the crash of a falling tree somewhere in the forest. One traveller has described how he heard the sound and how he located a hollow dead palm tree, which had fallen, as the cause. I know these palms and the dead shell and leafless crown is so light as to be unable to create enough noise, when it falls, to carry more than half a mile. A decaying tree of large size may however have a hollow up the centre of 3 to 4 feet diameter and extending right up the bole to the first branches, a matter of 40 to 80 feet or more. Trees do not die as does the palm when decay sets in.

They continue to flourish to all appearance and their crowns of branch, twig and leaf seem as good and as heavy as their neighbours. Such a tree would weigh as many tons as the palm would weigh stones and when one falls would make a correspondingly greater noise. My experience has been that the crash of some of these giant monarchs of vegetation make by far the loudest volume of sound in the forest and they may be heard at a distance of a mile or even more from the catastrophe.

I have, however, heard the sound when I have been right out in the open savannah country, probably a distance of 60 to 80 miles from the nearest forest. The savannahs carry diminutive trees, which, on their fall, would not be heard beyond a very short distance - a matter of yards. There are reefs of palms which even in favourable circumstances would not make enough noise to carry beyond a very short distance. No tree in the forests however large can make such a noise in falling, to be heard, even with a favourable wind, at such a long distance and I think we can rule out falling trees as the cause of these rather mysterious reports.

This peculiar noise is well known to every Indian tribe and to most individuals and is called "Nature's Noise". With all their acute sensitiveness and keen observation the Indians know little or nothing as to the cause of the phenomenon. The Indian has no fear of the noise: it is harmless and does not presage either good or evil to the individual or the tribe. When it occurs they will probably discuss it and locate the direction, but beyond saying that it is "far" or "near", both very vague and elastic terms, they can give you no idea of the distance. Although the Indian has no knowledge of the cause of these weird noises he is very definite in stating that falling trees or palms are not the reason. Actually there is a great difference in the two sounds. When a tree falls the sound always reaches the ear on a horizontal line and generally with a delayed and longer sound. The "Nature Noise" seems to

strike the ear from an angle of 40° or more from the horizon. A newcomer may even look up in the sky to see the cause. The sound is sharp, clear and quick. I could quite easily, even with my limited powers of observation, tell which was which in most cases, although now and again it took the more acute ear of the Indian to differentiate, if the sound were rather indistinct and at a long distance.

Although the average Indian acknowledges complete ignorance of the cause of "Nature Noises", one or two of the older and more experienced men have attributed rocks as the cause, but this declaration is generally followed by a termination which leaves a certain amount of doubt attached, and I have only met one Indian who definitely stated rocks as being the cause of the sound, without doubt or question, although he could give me no reasons as to how or why.

I have however noticed that such sounds are never heard on the lowlying coast lands where there are no rocks, but I have repeatedly heard the sound in the farther interior and always where many boulders or rock masses are exposed to the direct rays of the sun. It is quite a common occurrence to meet large boulders and rocks that have burst or broken in two for no very apparent reason. These breaks may amount to a wide severance of several feet where the rocks had space to fall such as a point of a boulder jutting freely out in the air, but the majority show cleavages of not more than a few inches in width. These breaks do not show any sign of a natural fault and are generally clean cut crystalline fractures, such as those obtained by breaking a stone by force with a hammer. The cracks may show the patina and weathering of many years since the occurrence, others may be of such a clearness and newness as to suggest the rock having just been broken apart. The break is confined to one major cleavage in one direction only, or at the most in two lines. The rocks are never shattered in pieces, just the one clean break with no fragments or splinters around.

No....268.

I remember a certain granite boulder situated right out in open savannah country on the watershed of two well known creeks. An old, old Indian trail led along the ridge, and the rock was a well known land mark, a couple of yards from the trail, and it indicated so many hours travel either from or to permanent water and possible sleeping places. The boulder stood about 7 feet above soil level, was some 10 feet in diameter, and had a smooth rounded dome without a visible crack or flaw as far as the eye could see. I have often stopped at this boulder to rest or to await my carriers who had lagged behind. I had been passing this rock periodically for some dozen years, and one day the man in front down the trail said, "Look, boss ! that rock has broken", and sure enough it had ! Examination showed that a large layer some six inches thick, had been broken off the entire dome, somewhat resembling one of the rings of half an onion, and this again had been broken in two right across from side to side. There were no signs of weakness anywhere along the lines of cleavage, nor were there any signs of violence, merely clean fresh breaks showing up and an absence of chips or fragments. This ring of stone still remained on top of the rock practically in position except that it had been forced apart some few inches where the break from side to side had occurred. It must have required much force to have broken off this half ring from the parent rock, and there must have been a considerable report, yet inquiries at the villages some 15 miles away produced no evidence of a recent "Nature Noise" in the locality. The only reason I could think of to cause the solid rock to burst was unequal expansion or contraction in favourable circumstances. Rocks broken in this manner would naturally burst with a loud noise, as the cleavage would be sudden and not gradual, and it would be a unique occurrence if an Indian happened to be sitting close when it went off. This explanation, backed by a few half hearted acceptances by the Indians, is much more feasible than that of falling palms or trees, and I feel fairly sure it is the true cause of these weird noises heard from time to time.

In over 20 years of living in close touch with the Wapichanna tribe there have been two "Nature Noises" which attracted the attention of the entire tribe living over adistance some 100 miles by 80 miles. One which I personally saw, was a huge meteor which burst overhead and immediately went out. The report was heard by everyone, but only those within a limited radius heard the fragments as they crashed to earth. The main explosion was like a huge gun fired a short distance away; the fall of various fragments was much less pronounced, somewhat like a succession of gunshots across a valley half a mile away.

The other occurrence took place during the first week in May 1902 and was heard far beyond the Wapichanna tribe. It was about the first of these weird noises I had heard and seemed to me to come from almost overhead. To the great glee of my Indians I looked up in the sky to see what had happened and although they admitted the sound was approximately overhead they were able to locate North East as the direction the sound had come from. I was working miles away in the forest with some 30 men and we all heard it. Carriers arriving with food from the savannahs for the men also reported having heard it distinctly. A friend, an Englishman, was also working with a gang of Indians in the forests some 50 miles from where I was busy. It was quite two months before I met him, but he and his men had also heard the noise and his Indians' sense of the direction corresponded with mine. It was a nine days' wonder as the whole country had heard the loud report but we soon all forgot about it. It was not till a year later that we learned that Mont Pelee in the Island of Martinique had blown up on the morning of the day we heard the sound. It may have been coincidence only, as Mt Pelee is hundreds of miles away with a towering range of mountains running up to 8000-9000 feet between it and us. Whatever was the explanation it must have been something on a colossal scale to have been heard over an area of more than 10,000 square miles in extent and far beyond the power of any falling palm or tree !

No....270.

Telepathy.

Most people have seen compact flocks of birds flying overhead and have wondered at the skilful manner in which they dived, circled or swerved in unison without a single collision. What is the signal, or who gives the order for a flock of over a thousand starlings flying in close formation, when they suddenly swing away from their direct line of flight ? So far as we can note, no apparent physical signal has been or could be issued, yet the particular movement is carried out en masse at exactly the same time, over a fairly large area, in perfect order and safety. The occurrence is so frequent as to prohibit the idea that such sudden changes or variations in flight are merely coincidence, or just accidental. It does not seem possible that any signal could be given out to attract the notice of the senses of sight or sound, which are the only two senses which can operate at a distance.

This peculiarity of mass movement is not confined to birds alone, but has repeatedly been noted also in large herds of various wild animals all over the world. Here the movement is slow by comparison, owing to the much slower speed of even the fastest animal, but there occur frequent demonstrations of the peculiar nature of the action much more easily observed by man. Watch two stranger dogs unexpectedly sight each other, say at 30 yards distance ! Both stiffen into frozen immobility for a few seconds. Suddenly one dog turns tail and races at his utmost speed for safety or home, generally pulling up only when within his own gates, when he pollutes the whole neighbourhood with a stream of unprintable language. Both dogs may be evenly matched in size as far as can be seen, but even if not, it is not always the smaller dog that runs away. Somehow, one of them felt he was in a danger zone and simply ran for shelter, yet there had been neither movement nor sound emitted to serve as a warning. A stiff wind blowing at right angles to the line of the two dogs precludes the possibility of scent reaching either.

It must be that there is some subtle emanation somewhere along

lines that science has, as yet, been unable to locate; something perhaps on the principle of wireless, when some unknown, exceedingly sensitive nerve or cell point in the body gives off impulses which in some way, travelling over the ether, are picked up by an equally sensitive receptive nerve point some distance away - probably telepathy !

Instances of this peculiar sensitiveness, without apparent physical cause, are fairly common amongst all people. Nearly everybody at some time or other has gasped in surprise when, just as they opened their mouth to speak, someone else said the identical sentence first. "Great minds think alike", we say, but it is equally as possible that there is more to it than that ! In this case we have only the short distance of a few feet between the two parties, but it is probably telepathy that is the cause of the occurrence.

It is well known how news can travel amongst the more crude or savage peoples of the world at almost impossible speed both by land ~~or~~ and water over enormous distances. In Africa, nearly every traveller puts this down to the beating of drums, but I very much doubt if the drum is more than an accessory. These drums are naturally very limited in variety of sound produced: variations being possible only as to whether hit hard or softly, and this would soon become indistinct and inaudible owing to distance and differences in the rhythm of the drummer's blows. Neither do I believe any pure African Aboriginal race has ever reached the natural height of intelligence required to work out a code of signals in drumming to meet all occasions. The code would also have to be taught to each succeeding generation, by constant practice in youth, but these people have no schools, nor does report show instances of classes in the home. The whole idea seems to be quite beyond any tribe even within its own territory, but becomes even more improbable outside the limited area occupied by such tribe, for the language and customs of other tribes will almost certainly be completely different. The tribes, until fairly recent times, were at war

with each other, and it is very unlikely that tribes one or two thousand miles away would have the same code of drumming, so the signals from one people would be unintelligible to another. Sound from any drum could not carry very far even in the most ideal circumstances, yet many take it for granted that the drum beaten in Togoland could convey news, and the message be understood in the far distant Mountains of the Moon over a several thousand mile tangle of forest and veldt, mountain and swamp; an area inhabited by different tribes and where there are wide strips of country completely uninhabited and across which no African drum could send an intelligent audible message.

Since intelligible sound waves are limited in radius, we must have a long relay of drummers to meet the longer distances of transmission and here the human factor of error comes into play, for the wrong beat of a single note would probably render the message unreadable or change it considerably. It is far more likely that the African, probably quite unconsciously sends and receives these messages by telepathy in much the same way as it would seem to be done in the case of birds. Drumming may serve as an aid in two ways. It may help to concentrate the attention on the objective in view, and so hold the mind for a longer period free from outside disturbance while the drummer is unconsciously placing his message on the air. The drum will also warn anyone within hearing that something unusual is on; he in turn drums, so warning others until the whole tribe is tensed, and concentrating on what may be happening; it may mean life or death to the tribe. The petty worries and trivial happenings of the day disappear in the face of newer, graver factors in life; the telepathic sense becomes acute and the message is unconsciously received and registered by at least one person. The message may go far beyond the tribe of the sender and may be picked up by anyone in a receptive mood at the moment. This far away tribe may or may not understand the language of the sender, but many tribes possess an uncanny power of reading the thoughts of others, even those of the strange white

man, especially the thought on such common ties as life or death, hostility or friendship, war or peace.

I am quite convinced that the South American Aboriginal Indian has this telepathic sensitiveness fairly well developed, or at least some subtle means for the transmission and receipt of messages. It is quite an unconscious accomplishment and none can explain anything in relation to the fact. I have lived so long amongst them to know that they definitely have no mechanical means of doing so, although some travellers advocate various causes:- sound, speech or sight.

All Indian tribes use small drums, the best of which in all cases can only send sound over a comparatively short distance, certainly not far enough to reach people or villages many miles away, over which even relaying would be of no use. The drums are but rarely used except when just being made and tested, or while the toy is still a novelty. They are occasionally used at a dance or drinking festival, and the more general use is during that period when a youth is entering manhood, when, varying with the different tribal customs, he may have to march up and down the "village square", hammering away at his drum for a couple of hours before dawn every morning for weeks. There is little difference in any note and only a variety in speed or rhythm, but definitely no system of signalling has been evolved.

The same remarks apply to his flutes, whistles, or other mechanical means of producing noise - the limited distance the sound will carry and the complete lack of any code of signals. Probably the voice in a high pitched vigorous yell will carry as far as any mechanical device they know, and even that is insufficient to bridge the distance. Sight is useless at night and very restricted in range in any country, especially the high forests.

On entering a new tribe of Indians with few or no previous contacts with the outside world, one is struck immediately by their habit of conducting the welcome ceremony or litany, between host and guest, in their respective tribal languages, not more than a

word or two being understood, yet they seem to know what each is meaning. Even when they later get down to business - barter - they seem to know what is required as in the instance of the Taruma (Mr & Mrs Dodo) doing a thriving business in Wapichanna country when I know he knew no Wapichanna language and his clients no Taruma. Nobody can be more dense or less understanding than the Indian when he chooses, yet when the right atmosphere of friendship and trust has been established, it can be almost uncanny how they can anticipate the unspoken desire, and that independent of whether one speaks English, French, German or modern Yankee ! They definitely can sense almost on meeting whether they can trust the stranger or not, and the number of observations they make in a five minutes' contact with one, even if he does not know a single word of any language they know, is truly remarkable. At once they can pick out weakness in character and methods of living that are seldom wrong, and would very much surprise the innocent newcomer.

Most Indians have an innate desire to please the visitor or stranger and one has to be on one's guard against this habit at all times, even more so as one gets to know a tribe and often a particular member. Should they voluntarily give one any information it is generally true as far as they know, but when one has to ask a quick question without the proper preamble, one is as likely to be told just the opposite to the truth. "Just a pack of lies", as I have heard many an irate questioner term the reply. Such untruths may be told to anyone, equally to the complete stranger or to one who knows their language well and has long established amicable relations with the tribe.

In the Wapichanna country there is generally a long dry season from October to May when all the rivers may completely stop running. The break in the drought can be very sudden, probably 6 - 10 inches in a night, and the rivers are in flood in a few hours everywhere. Within a few hours of such a flood, and extending for a week or more, there commences a rush of countless numbers of fish, all

making for the higher reaches of the rivers and creeks for the purpose of spawning. A friend with whom I lived was very fond of sport, and he loved to be out at such times with his bow and arrows, shooting fish after fish. We were once both in camp and it rained heavily during the night, but not enough to start our river in flood at the house, although a few miles away on either side the creeks might be in high spate. About noon, a gang of men came in to report on some work to me. My friend came round the corner of the house where we were talking and shouted, "Hello ! where did you fellows sleep ?" They replied, "At So and So creek". "Is it in flood ?" "Yes," "Are the fish running up ?" "Yes, they are just arriving". "Are there any pacu in the falls ?" "Yes." My friend immediately had a horse saddled and was off at the gallop with his bow and arrows. Darkness was just setting in when he returned with the information that the creek was barely running; just a mere trickle from pool to pool but wholly inadequate for any fish to ascend. "I might have known that if fish were on the move at all, these men would have stayed all day shooting", was his remark.

My friend had resided for years in the district, spoke the language fluently and was noted for his kindness and understanding towards the whole tribe yet here they told him a deliberate untruth. In my opinion he had already come to a decided conclusion in his own mind that the creek was in flood and the fish running. The Indians either read his mind (telepathy) or the way the question was made gave them a hint, and they were afraid to cause him displeasure by telling the truth. Many and many a time I have been told facts that subsequently I discovered to be untrue, but going over the circumstances later, I generally found I had already reached a certain conclusion myself and that the information coincided with my preconceived ideas. The only way to obviate these apparent lies is to lead slowly, step by step, from some distant starting point until you arrive at what you actually do want. Had my friend taken time, got the men, as per custom, to tell over the slow journey from the village to our camp, he would have learned

much, and a few adroit questions would have put him in possession of the true facts. They would have told of how it rained, how the swamps were full and made walking difficult and much else of no importance. Then my friend could have started with the remark, "But with all this rain the creek must be rising ?" "Oh, yes !" "Did you have difficulty in crossing ?" "Oh, no ! it was just beginning to flow". "Not enough for fish to ascend however". "The creek just reached ankle deep, but no fish could pass when we left". With the customary directness and haste of the white man he wanted an opinion on a subject on which he already had a firm conviction and the men gave the answer he unconsciously wanted.

The speed with which news travels over either short or long distances is quite astonishing. Many people put this fact down to the continual movement of the various members of the tribe. In a tribe of one to two thousand souls there must necessarily be much activity, hunting and fishing expeditions every day from almost every village in quest of food; social visits to neighbouring villages, or trading expeditions here and there. These people, free as the birds of the forests almost, need consult no one, and move freely around according to their own desires and they must frequently meet others in the course of their travels, when they can pass on such news as they have by word of mouth, but there are times when the news concerns people far beyond the range of the tribe, over territory held by enemies, or just trackless jungle through which no known being could pass.

A missionary was greatly interested in the Indians and was certain he had solved the method of message transmission. For some reason, which I cannot now remember, he was led to hold a special service most unexpectedly, at which he desired a full attendance. One village lay up river at least one good day's journey by corial. It was Friday morning, and he chose a messenger to go in his corial at once to warn the distant villagers that they were wanted. Towards sunset, he was horrified to notice his messenger calmly bathing. A count of the village

and mission corials showed every one safely tied to the bank and enquiry showed that no one had gone to deliver the message. The messenger who had been ordered to go gave no reason for disobeying, but quietly assured the missionary there was no need to worry, as the absent villagers would be there on time. On the Saturday, soon after noon, the villagers in question turned up, having left their homes the previous day and here they were in excellent time for the special service at dawn on Sunday morning.

Interrogation gave no results either from the messenger or the villagers themselves. Their village was only approachable by river, the forest being a trackless jungle, and there had been no visitors either up or down the creek. Then my friend remembered having seen the messenger vigorously cupping water with his hands. This gives out a sound that travels quite a distance and he decided it was the method by which the absentees had been notified. Further observation on subsequent occasions confirmed the missionary in this idea, and he always remained convinced that he had solved the mystery of these long distance messages.

Cupping water, as I call it, is fairly common amongst many tribes and calls for little exertion or force. There are several variations, but the principle is the same in all cases. An Indian walks out into water till it reaches his waist. His arms are held close to the body but bent at right angles at the elbows, thus sticking out in front a little above the water with the hands slightly cupped, palms downwards. The hands are then plunged under the water with a circular sweep that causes the palms to meet a few inches below the surface, and a fairly sharp booming report is given out which can be heard half a mile or more away in favourable circumstances. An alternative method is to cup one hand only and force it down about a foot in the water and then turn the palm up when a considerable bubble of air is released and begins to rise. The bubble is struck with the open palm of the free hand just as it reaches, or a little below the surface and the same sound is produced. Yet a third method is to cup one hand and plunge it

under the water with a circular sweep a few inches under the surface. At the same time the whole body is swung sideways so that the armpit opposite the moving hand connects with it immediately below the surface and the sound rings out.

When watching experts, the operation seems effortless, but it requires considerable skill and accuracy to connect the various limbs at the right spot. I have seen little slips of children doing it with ease, but often as I tried, I never got beyond an accidental success even with an expert demonstrating. Each person strikes a slightly different note, and the boys of one village can often pick out the different bathers by the sound fully half a mile away. I have repeatedly asked my boys to send some simple signal to the bathers, for instance asking them to visit our camp, but they invariably informed me it was quite impossible to do so. None of them could give any signal.

I have never become sufficiently intimate with any tribe except the Wapichanna to decide to what extent they carry on these methods of conveying news. My interpreter - Saik Tau - told me the Tarumas possessed the faculty, and also the Waiwai. All Indians are very shy and reticent on the subject, largely because any allusion to it is generally received by outside people with the greatest contempt and ridicule. Unfortunately, the real aboriginal Indian of the forests is known all over South America as the "Monkey" (Makaka), and is spoken of as such, and treated more or less as one until after losing many of his finer characteristics through contact, he has adopted all the vices he can from the superior races (and incidentally none of their virtues) when he becomes known as "civilizado" (civilized) and is treated with even less respect. All Indians are deeply sensitive to ridicule, sarcasm and scorn. One can always get much more work by a judicious application of these than from any other reason. This weakness is often a great factor in their lives if correctly used, but it is much more misused as a rule and the Indian reacts

accordingly. It is this susceptibility to sarcastic ridicule and scorn that he rarely understands, which accounts for such behaviour as excessive laughter when associated with white people. Someone makes a simple remark and everybody laughs, but I have often felt that such laughter is caused by the dread of ridicule or scorn from the stranger in his reception or reply to the remark; a covering to anticipated embarrassment. They are naturally a free, happy race to whom laughter comes readily, and they do ridicule each other most unmercifully on every occasion, but this is generally a superficial ridicule with no malice behind it and no withering scorn of inferiority, and is quite understood by the tribe. When however, the Indian puts out some of his finer and higher feeling in front of a stranger, to be met with scorn or ridicule, he retires behind his inscrutable reserve and one gets no farther.

When I began working with the Wapichanna tribe, I noticed in my long walks here and there in the forests on my tours of inspection, that I would frequently find an Indian whom I particularly wished to meet sitting by the side of the trail, and who would quietly greet my guide and me by saying, "I am waiting for you", or "I am expecting you". I also found this expression a fairly common salutation when entering their various wide spread villages. There the headman would generally keep to the strict tribal litany with my leader, but quite often some of the less responsible or younger villagers would address some of my other men by saying they were waiting for us. The correct reply to this salutation was some joke connected with some of the women of the village, perhaps some female relative of the man who had spoken, e.g. "It is your wife, and not you whom I hoped was expecting me", or "I would much prefer your younger sister to be waiting to receive me".

There was a couple of white traders who had been in the district for years and I asked these men what was behind these unexpected meetings and peculiar salutations. Their reply was that such meetings were pure coincidence and that the remarks were a mere joke grounded on a popular saying in vogue at the time.

I must admit the Wapichannas were much given to adopting popular expressions which would spread over the whole tribe in a short time and might have a run of a year or more until some other remark became popular. In the play of ordinary conversation someone would lead the talk around to a point where he could use the expression in reply. This showed brilliance and wit, and was received with loud laughter on all sides. These expressions might be a similarity between two words, a word that had been mispronounced by someone in the village, or merely some senseless sound on which hung some obscure joke. All Indians are adepts at coining new words. When the first cart was assembled in Wapichanna country it was something completely new to them and they would stand a long distance off in case of danger to themselves. They had never seen such a thing in their lives and had no name for it, but it hadn't gone many yards when, from the noise of the cart sliding from side to side over rough ground, they named it "Tal-lal", and it has remained "Tal-lal" down to present times. In the times when I first met the Wapichanna, the customary remark to any statement was either an affirmative "Ha", or "Is that so ?" Then some bright smarty started a slogan of "You lie", after any statement by a visitor. No popular saying I have ever heard was so bad on the blood pressure as the constant, "You lie", remark to anything one might say, no matter how obvious the truth might be. These popular remarks, after being ridden to death for some weeks or months, always died away, or were supplanted by new ones. The salutation of, "I am waiting for (or expecting) you", however did not die away. There were times when one heard it used but seldom, but it was still in use when I left the district.

When on these long journeys of inspection in the forests, I always slept in a camp somewhere amongst my men. I might be delayed there for any reason and my itinerary could not be definite or known at any time. The night before leaving any camp, my guide and I, after turning in to our hammocks after dark, would have a

consultation with the men as to the best trail to follow to reach the next camp probably a distance of 20 - 30 miles away. A single workman might have a camp for himself and family several miles off the more direct route. These single camps were mere temporary shelters only, erected wherever the Indian had located a favourable patch of balata trees from which he extracted the gum and got paid for the work. It was impossible for me or any guide to know exactly where these shelters had been erected in the whole of the thousands of square miles under my control. I might wish very much to see such a workman on my way through, and there would be long, complicated instructions given as to how to find the place: the exact spot to branch off the trail, and the direction in which to cut our way. In the end I might decide it was not worth my time and trouble to attempt to find that camp and its lone workman; and decide to go straight past on the main trail. Definitely no one left the camp that night and no man outside would know my movements, yet next day when almost opposite that single camp, I would find my workman sitting on a fallen log patiently weaving a basket or something and he would quietly remark,"I am waiting for you".

My theory for these coincidences is that during our conversation of the previous evening, every man was giving his most earnest attention to the discussion, even if he were not actively talking, and was at least intently going over the country and trail in memory, and this probably sent the mind of someone into the peculiar state of mental activity that is necessary for the telepathic sense to function. Between the time that darkness falls and such hour as the Indian goes to sleep, is the time that he is most susceptible to the occult. At such a time "Kenaima" and invisible unknown dangers roam in search of victims. Any slight sound of a peculiar or strange nature brings a quick, "Hist", from someone, which will close the most hilarious conversation. I have been in a camp where the men have sat for hours with their weapons in hand as silent as the grave, their minds questing hither and

thither for an explanation of some sound out in the dark, trying to sense the dreaded unknown danger and planning the best method of defence or offence. In a new camp, it is wise to be especially vigilant as there the dangers may be different from those at their proper homes. These hours, therefore, are just the time that the stimulus for receiving impressions from outside would be most acute and the telepathic sense of reception at its highest. Thus the hours when my men, under strong stimulus, were emitting quite unconsciously whatever waves or emanations carry the message, coincided exactly with the time when the single worker was tensed to a high degree of receptivity, and unconsciously picked up these waves and learnt somehow of my proposed journey.

I do not think this emission or reception of messages over distances is done very frequently. Both the parties must be in the proper state of mental activity. The sender is the more important and the necessary condition could only be produced when some abnormal circumstances took place to provide the stimulus and concentration required. Even then the news might fall on unreceptive senses. It takes very little with most of us to disturb close attention and concentration at any time, and as often as not, the majority of the tribe would be busy thinking, or talking over the events of the day in a normal manner when the message was flashed out. It could only be at a moment of the necessary receptivity that the message would be understood. Such moments would also have to coincide to a split second in time, otherwise the message would be missed. As civilization and its many ramifications come into play, the Indian has more things to think about, his innate sense of danger decreases, the mysterious is either explained or lessened in effect, and consequently the necessary stimuli and peculiar frame of mind are fewer, and telepathy becomes rarer from year to year almost everywhere.

I do not think these mysterious messages are sent either by a code or their own language. Within the limited area of any individual tribe, detail in the tribal language is possible and probable, but periodically messages come in from distances far beyond

the tribe, probably over country inhabited by enemies or just sheer forest without a single inhabitant. This disposes of a possible relay which in any case owing to complete difference in language, would have to be in an intelligible code of some kind, and that they do not possess. It is much more likely that they can grasp an idea in its main points, much as anyone can tell at the quickest possible glance at a view, whether it is sea, sky, or land. It may also be that there is some common note that will indicate danger or death no matter where, or who gives the signal. The subject of telepathy is quite beyond the layman, but I am certain from personal experiences that there are times when, given the necessary stimuli at both ends of communication at exactly the same fraction of a second, Indians can and do receive information over distances ranging from the next village only a few miles away to something that has occurred quite 200 miles away, and that irrespective of the languages at such distance.

It is quite hopeless to make even a guess at the amount of telepathy that goes on. One is struck by the amount of news possessed by different members of the tribe at times. Yet again one is forcibly impressed on occasion, in finding a village completely ignorant of some death or tragedy in the next village. When they retail their local gossip or news, there is no means of checking up how that man received his information. Most of the news is not of sufficient importance to catch the attention or warrant investigation. It is only when some piece of news from long distances away, sufficiently important to ensure a record being made, that one actually comes into touch with telepathy. I do not think any Indian has any definite knowledge either how to transmit or receive messages and it is done quite unconsciously at certain phases of acute mental activity.

I do not think it possible for any man without previous experience to enter any Aboriginal Indian tribe of South America without committing many a faux pas and unwittingly offending them. I have known missionaries, simply oozing good intentions and the

milk of human kindness, who have made serious and costly mistakes. In my own case I know I made many, but gradually the Wapichanna began to understand that I really meant no harm, and that my peculiarities, such as cutting short their various litanies and attempts to arrive at a point sooner than custom dictated, were rather harmless and had better be condoned or overlooked in view of the benefits to themselves in other directions. I had the greatest sympathy and curiosity in their telepathic news and gradually they began to tell me everything they heard. Newcomers to the district often used to chaff me on this by asking, "What is on the telegraph just now ?" and I now give a few of the incidents that rather startled them, and astonished myself.

The sole government representative of the district was a man of many years residence and very close association with the Wapichanna. Government decided to make a survey of a part of the Colony some hundreds of miles away and this man was put in charge. He left the district with some fifteen men who had been specially trained and whom he wanted to rely on as dependable carriers and helpers in the survey, which was to take some six months to execute, in country where there might be no inhabitants or whose residents were no use as workers. About a month after his departure, an Indian walked in and told me this man had broken down in health, was seriously ill, and the survey abandoned. My informant could give me no idea as to how he had got the news and it was very definite that no one had arrived who could have brought word. A couple of months later, the official returned to the district and confirmed in every detail the news which had been circulated in the tribe. He had reached the coast safely and left with another white man to do the survey. They had to pass through a rather unhealthy belt and the companion was in none too good health. They left the last point in civilization, and had just cleared an enormous fall after days of hard labour, when our district official took seriously ill. They had to return to town where the doctors diagnosed something of long standing and he had to undergo an operation in hospital. He kept all his men in town while ill,

and as soon after as was possible returned with them to our district. The country between the point where he broke down and us was over two hundred miles in a straight line, a huge range of mountains of some 6000 to 8000 ft in altitude intervening, largely under deep forest and sparsely inhabited by Indian tribes, of whom the Wapichanna walked in daily fear, and who had been their sworn enemies for years. None of the boat hands had left his employment and no boats had left to come up country !

I was doing some work amongst these same enemies - the Macussi tribe - accompanied by one man who was one of the few accepted inter-tribal mediums of such small trade as went on. At morning coffee - 5.30 a.m. - he astonished me by asking if I knew that 'Such and Such' a white man had shot a girl in 'So and So' village. "When did this happen ?", I asked. "Quite recently", he replied. "Probably as recently as last night ?", I enquired. "It might even be so", he said. Further details I could not get, nor could he tell me how he got the news. He definitely knew a girl had been shot and by whom, but nothing further. When I returned home after some months I began to enquire into the incident, but not a single Indian could or would give me any information, in fact, they swore there had been no such happening, so I was reluctantly forced to conclude the Telegraph had made a mistake. Some two years later, I met a man who was partner with the alleged shooter, and must have been present at the occurrence. After a long conversation I suddenly sprang on him this question:- "Whatever made 'So and So' shoot that Wapichanna girl ?". He simply gasped, "What in Hades do you know about it ?". "Just everything", I answered, "so you may just as well give the few details I don't know". He told me a girl had been shot but quite accidentally, the bullet wounding her in the arm. The girl had been bandaged and attended to as well as possible, then a good payment given her in recompense. The village had been asked to keep the accident a profound secret. The man responsible knew the Indians and their beliefs, and he had threatened to send a horde of the worst imaginable Kenaimas if any villager even so much as

mentioned the happening and I must say they never did. I was roughly 100 miles away from the scene, a range of 2000 ft high mountains between us, completely clothed in high forest where not a single soul was living.

Quite unexpectedly I had occasion to send four men on horseback to collect a number of cattle which I had purchased from some Indians who lived at the extreme end of the savannahs, a distance of, at least, 130 miles away. I gave these men careful instructions where to sleep at villages along the road, each about 30 miles apart so as to conserve their horses. They were to spend three days in the village where the cattle were, in order to rest their mounts, and gently collect the cattle. Then they were to drive these cattle slowly and carefully along a different road for three days to a certain village where I would meet them as I had business there, and would take charge of the drive in person. In all, they had to do a journey of 160 miles in 10 days. I left the day after my men and was at the village arranged with plenty time in hand. To my surprise and dismay, I saw the cattle approaching the rendezvous on the sixth day instead of the tenth as arranged and I immediately began scolding my headman for travelling so rapidly, as the animals would have suffered considerably, especially as this was just the beginning of a 400 mile drive to market. "It is not so", explained my foreman, "we slept each night just as you had ordered, but we men the Indians driving out the cattle to meet us and that saved us four days". The man whom I had bought the cattle from had come along all the way, so I called him and demanded an explanation, and this is in effect what he told me.

"This is the season when we cut our new fields, and our village was deserted except for a couple of old women. My family and I were some 15 miles inside the forest at work, when Indian "Anton" came in and told us you wanted your cattle at once, and that I was wanted to assist you. We packed up in readiness at once and left for the savannahs next morning. When we arrived home we still had time to catch up our horses before it was dark. The next day we

quietly collected your cattle and put them in the corral for the night. We made an early start next morning driving the cattle in front of us and met your men at noon when they took charge and we have slept according to their orders as given by you. "How many days is it since you were told by Anton to do all this ?", I enquired. He put out his hands and began ticking off how many nights he had slept since then, and said "To-night will make the sixth night". "Can you tell me how and where Anton received this message from me ?", I asked. This he did not know. He had had my message and that was enough.

Now my own men had collected horses at home with no hint as to the object in view. It was only late in the evening when the different horses were allocated to each man that they were told where they were to go, and the business on hand. Certainly no one knew the trip was to be done and no stranger had passed our station, nor had any of my men been more than a few miles away when rounding up the horses, yet Anton got the message in time to be able to start within an hour or so of the departure of my men, to walk 15 miles through the forest and deliver that message in time to allow the Indians to prepare themselves for the trip out to collect and deliver the cattle.

Subsequently I got hold of Anton and questioned him closely. He was perfectly frank on the point that he had gone into the forest and warned the Indians that their services were required out in the savannahs. Further than that I could get no information. He had not been told by some outsider, that he knew, but as to how he had arrived at the knowledge, he was perfectly blank and could explain nothing.

I was once asked by a foreign company to report on a certain river which lay entirely in high forest. The river was obstructed near its source by a bad fall which so far had completely blocked navigation. No person was known to be living on the river, nor had any Indian ever seen its course in living memory. I decided to cut

a trail through the forests to its source, build a woodskin, and then descend as this was much easier than ascending what might be a rapid, troublesome river. I took a gang of my Indians and after 10 days' hard work struck the head waters of a small creek which must either be the river itself or a branch. In two days we made a woodskin and launched it. I sent back overland all the men with me except two whom I selected for their excellent bush lore and ability, and the three of us started down the creek. It proved to be the source of the river we wanted, but was one of the worst and most dangerous journeys I have ever made. Every few miles we met most formidable obstacles, rocks, rapids, whirlpools and huge falls. Progress was difficult and slow, as we had only a frail woodskin craft between us and even more trouble, if we smashed it. Our food began to run short with the continual delays and difficulties, then to crown everything, in negotiating a fall of 100 feet high, our little craft got out of control and was so badly split as to be of little further use to us. About half a mile below us we saw a huge sandbank on what was now a fair sized river and after some trouble, we beached our woodskin at the head of it.

We sat there consulting as to what was best to do. Our craft could be lashed together again, so as to be serviceable, provided we could find a certain liano whose bark was necessary to caulk the crack. Both men, however, declared they had been watching both banks of the creek for this liano just in case of an accident such as had happened, but had seen no sign of it anywhere. It was no use crying over split milk; the sun was high so we'd better have breakfast first and decide what to do afterwards. We had been lucky with the bow and arrow in the falls and had several fine fish waiting for the pot.

There was plenty of wrack and debris left by previous floods lying amongst the nearby rock and we had drawn up the boat right at the edge where the rocks ended and the sandbank began. One man took the fish and began to clean them; the other began making fire. The man who was making fire was a rather famous piaiman (medicine man)

and soon he had it blazing brightly. Suddenly this man seemed to galvanise; he stood stock still, staring into the flames for a moment or so, then he ejaculated, "I see it, I see it", whereupon he reached down to pick up his machette which was lying at his feet. He wheeled round and began walking swiftly down the sandbank. Half way down the sandbank was a large isolated clump of a couple of stunted trees, and a tangled mass of vines. The piaiman stopped before the clump; he pushed his hand amongst the tangle and pulled out the one and only vine that could be of any use to us ! None of us had been within at least 50 yards of that tree and vine clump, yet he found it !

The vine was barely sufficient for our purpose, but we got going again watching like hawks now for more lianos, but we never saw one more on the balance of the journey. We were not far from the river mouth fortunately, and turned up another river for home. Our food was completely exhausted and the new river had not a single fish or any other form of game. We made an old Indian landing late at night, hungry and weary, with a 40 mile forest journey in front of us before reaching a village and a badly needed supply of food. We left at dawn next morning and pushing on all day, arrived at a village with the last streaks of daylight. To our surprise, we found the Indians were all packed up ready to start in the morning over the trail we had just travelled, to go in search of us, as they had had a message that we were in trouble and our food exhausted. I traced the message back to the Government Commissioner who in turn had had it from an Indian. Believing that the story might be true, he had despatched messengers to the village nearest to where help could reach us, with orders for the men to go in search of us.

On that occasion it was definitely impossible for anyone to have carried a message, as there was not a single soul within probably 100 miles of the three of us. It may have been coincidence but I doubt it. The reason for the delay of the rescuers' start was because the Indian who received the message went off to the only

white man in the district, and there was more delay in his getting fresh messengers for the 36 mile journey to the village where we found the men in readiness to start. To me, the strangest part of the whole affair was the Piaiman glaring into the fire, with his, "I see it, I see it", as he turned to discover at a considerable distance, the only alternative to building a new woodskin as a way out of our predicament.

Two American prospectors had arrived in the district and had made my station their headquarters from which to organise and conduct their various expeditions all over the country. I had sent boats out to the coast with the first floods of the year, and these being due back in late July (1914), we were all in camp together to receive the first mail since the previous September, and for me to check up and store the annual supplies that the boats carried as cargo.

One night in August, we had finished dinner and were all three sitting reading the latest home papers in the large common room that formed the second storey of the house. About 8.30 p.m. an Indian boy climbed up the steps and asked permission (as was the general custom) to be allowed to sleep somewhere. So late an arrival (after dark) was most unusual, and I sensed there was something important around somewhere. Much as I wanted to get back to my newspapers I kept the boy in conversation, after granting permission to his request, and presently he asked me, "Why are you white people quarrelling and fighting ?". This was just so much Greek to me, and when I asked him to explain, all he could tell me was that the white people (English) were at war and that eight different peoples (nations) were implicated. Of where the news had originated he knew nothing, but he had travelled all day to hear whether the tribe or I were in any danger.

When I had dismissed the man, I disclosed the news to my American friends. We went over the papers so recently to hand and nowhere could we see any indication of war for all was

apparently at peace. No boats other than my own had come up river, and if they had, this Indian came in from just the opposite direction. It was the rainy season, the tribe were practically all away at work for me in the high forests, and few people were braving the discomforts of cross country journeys except for some very definite reason. As far as I could possibly ascertain, it was impossible for any stranger to have brought the news, so we unanimously decided that for once the Indian Telegraph had made a bloomer and was entirely wrong with this very startling piece of news. I had to despatch a later boat to reach the coast on the 1st October. On its return in early November, we tore open the latest papers and then learned definitely that the Great War had broken out in early August.

No...292.

Settlement of Disputes.

Peace is general and war the exception amongst the Aboriginal Indians. Through the machinations of their medicine man they may fear a neighbouring tribe generally from a belief that such a tribe has strong occult propensities that can be used to do harm far beyond their boundaries. On this account, I found the Wapichannas living in holy fear of the Macussi, their near neighbours. For barter purposes it was essential to have certain middlemen, invariably men of either tribe who had married women belonging to the opposite tribe. Scarcely a death was registered amongst the Wapichanna unless caused by the Macussi; the medicine man would also make it publicly known that during a seance they had seen the invisible Kenaima being despatched to the Wapichanna country by the Macussi, and that it would be well for the Wapichanna never to be alone, and always to be well armed. They walked in daily fear of their lives, yet the Wapichanna had been forced to develop a style of boat which would stand up to the falls and in which they made periodical trips to the coast for salt, axes, knives and other necessities. The journey had to be made through Macussi country so full of potential danger, and it was only the stout-hearted who dared to go.

The Wapichanna had of course entered their present territory in fairly recent times, when they had peacefully absorbed the Atorads. There was no record of actual fighting since this had taken place, either with the Macussi or the other tribe. The Wapichanna country is however covered with myths of great fights at more distant dates. History shows that the pioneer Europeans on the coast had to have slaves, and this necessity was met by subjugating the various tribes they met on landing. These pioneers practically depopulated the whole coast in the endeavour to get slaves, and also organised expeditions into the far interior to seize and bring back more and more slaves. The Caribs were the most warlike tribe and they penetrated far inland. Doubtless they encouraged the Macussi to enter Atorad country, as the last

remaining Atorads have told me of the great fights that took place between themselves and the Macussi. The last of these fights took place on the Sowava Wau where they fought without ceasing for three days. It ended with no decided victory on either side but the Macussi withdrew and never again raided the country. The pioneers, finding the Indians of little use as slaves, had begun to look farther afield and "blackberrying" sprang into being. Thus it is more probable that the Macussi had no longer any inducement to fight, as they are no more offensive than any other tribe to-day, and once away from pressure from the coast, either from the pioneers themselves or their minions - the Carib tribe - they reverted to the old peaceful ways of previous generations. That the Caribs reached the Atorad country is well known. They were the most ruthless of all and when I went amongst the Wapichanna, for many years I could hear the more elderly matrons hushing a fretful child with, "The Caribs are coming", and no more effective way of getting perfect quiet have I ever heard.

Although no tribe to my knowledge conducts active warfare in or around British Guiana, they have many petty internecine arguments and squabbles, especially amongst the younger, more volatile males, although these rarely go beyond one or two of their tests of strength and endurance of which two were in vogue on occasions when I first met the Wapichanna. The older men seemed to have the sense to adjust their quarrels without actual fighting although I have known a case where a man injured another slightly at a drink, when passions and tempers got out of hand. At a few of these festivals I have had to interfere, but I often thought it would all have ended in smoke.

The customary way of showing displeasure, a quarrel or an open rupture, is by complete silence - treating each other with silent scorn! It was a fairly common occurrence for people to lay a complaint before me against some other party, probably an inmate of the same house or village, and just as likely one of their own immediate relatives. There had been a quarrel, generally over some trivial matter, and the only evidence was that the other participants kept themselves well apart and refused to speak. They completely

ignored each other till one complained.

The women amongst the Wapichanna were more numerous than the men and were constantly quarrelling amongst themselves through jealousy. The tribal habit of having a plurality of wives led to the majority of these silent disputes. The respective wives were seldom on speaking terms with each other for very long. A little too ardent display of affection or preference by the man generally led to a fit of the sulks on the part of the slighted party, and they had quarrelled ! Such a quarrel rarely went beyond a loud candid opinion of each other, or at the most a little hair pulling. These disputes were often settled by a thorough thrashing of the least necessary wife by the husband, should the quarrel interfere with his peace or enjoyment of life. It can be very amusing to see two wives who are not on speaking terms with each other, yet wishing one another no active harm. They are constantly communicating with each other through some third party, probably one of their own children, sending messages, or asking for the loan of some necessary adjunct to household duties, although the distance between the respective parties is at most not more than a few feet. The man may bring in some game, yet the wife who cooks and serves it will never forget her rival and some part of the food is sent to her through some intermediary. If the game is small, the favoured wife puts most of it before her lord and master. The other wife may only have a couple of hot peppers which she boils up with some water and if possible a little salt. As soon as the favourite wife has, so to speak, laid the table - in this case a clear space on the floor - the second wife is waiting till the other has retired whereupon she also sets out her poorer dish of peppers and water. The husband must partake of all two pots. Jealous eyes are watching and due courtesy must be accorded in proportion to each pot. If, however, the game is large, say a deer, the favourite wife cuts it up and apportions certain cuts to the other; the intermediary here coming into play to deliver it, but the second wife must on no account serve up better cuts or more succulent dishes than her

rival. These silences between parties - and they are quite common between the men also - may only amount to a day or two of aloofness, but they can extend to periods of months or even years in exceptional cases. I have known two sisters who did not speak to each other for over a year, yet they were the best of friends, nursing each other's children as occasion demanded, and constantly asking and giving food, tools, and other necessities through some third party.

Most of the disputes amongst men arose through gossip. Some interfering busybody, generally a woman, would report something that had been said by some one probably in a moment of irritation, and the customary silent quarrel would begin, but usually they were soon cleared up, and rarely lasted more than a week or so. Amongst the younger, irresponsible men, quarrels were fairly common, generally on points of prowess or strength, and the old time test at such a time was whipping, although it had almost fallen into abeyance before I left. An Arawak lad came up from the coast amongst the carriers of a visiting white man. He was boasting considerably of his endurance and strength; a dispute arose and a Wapichanna boy called him out to a whipping test. Both were wearing leather belts with heavy metal buckles which they took off to use in the settlement of the dispute. Each stripped his clothes and as challenger, the Wapichanna man raised his hands high above his head, leaving his body bare to the expected blows. The Arawak took the buckle end of the belt in his hand, and applied six lashes (the number agreed on) with the leather end of the belt round his opponent's waist, putting all the force and sting he could muster into each blow. The Wapichanna stood calmly smiling and urging the Arawak to "hit him"! "Why you are only tickling me"? he said. The Arawak now raised his hands high in turn and the Wapichanna gripped his belt, but he held the leather end in his hand and struck with the buckle. The heavy brass buckle added enormously to the force and weight of each blow. The very first raised a nasty weal and brought a yell about the unfairness of the method. Before he could drop his hands he

had received a second which drew blood. It was too much and the Arawak took to his heels, closely followed by the Wapichanna in pursuit inflicting a new blow somewhere at every second step until he had given the six lashes agreed on. The Arawak lived at a serious discount afterwards, the butt of all the village raillery, whereas he had been previously treated with considerable respect as being a member of a tribe they knew little about and also from the fact that all the worst troubles in life come up river from the coast. The lad was very glad when his master shortly afterwards returned to the coast.

Wrestling was a fairly common method of settling disputes, especially those of strength. All my experience of wrestling had been to throw an opponent on the ground by any means possible, but the Wapichanna technique was just the opposite. Their aim was to raise the opponent's feet clear off the ground sufficiently long to allow them to take a short step or two and to shout "Tikap" ! (Look !). It was catch as catch can in the matter of grips, and then followed the endeavour to lift the opponent. There was little fencing or manoeuvring for position. Tempers would be hot, due to the argument and usually they rushed at each other impetuously. Success depended far more on the position of the first grip than on any skill or science. The man who first caught a grip round the waist and under the other's arms had any opponent at his mercy as all he had to do was to lift him off the ground. They were adepts at getting the favoured grips, and I have been ignominiously hoisted in these wrestling matches. The same type of wrestling is adopted at certain drinking festivals to decide whether the "house" or the visitors are to own the beer, and here I have tried a few times. At these festivals all the males of the house or village wrestle with the arriving visitors, and a visitor who survives the first test can be attacked by half a dozen men who have disposed of their opponents and are free to assist their less fortunate mates. The wrestling test was generally final in all disputes, although another might be

staged a following day if the argument was continued. As a rule, the one who lost took the decision quite sportingly and admitted his inferiority. Wrestling fell largely out of fashion latterly, and other tests of strength became popular through increasing contact with the outside world. One of these was for two men to place the elbows of their right arms about a foot apart on a box, a rock or anything that was raised and convenient, with their arms and hands held perpendicularly. They brought the palms forward until touching and interlocked their respective fingers. On a given signal each began to try to force the others arm over backward and he who did this was adjudged the winner. This test really depended on sheer strength without any bias of grips.

On my first visit to the Waiwai, I was much struck by the fact that most of the grown up men had a number of unusual markings or scars along the waistline and over the abdomen. These were longitudinal scars from half an inch to about three inches in length in extreme cases, and about one-quarter of an inch across. In one or two cases these cuts had been severe enough to cause small ruptures. I learned these scars were the results of their tribal whipping matches. The Waiwai were naturally shy and reticent about all tribal customs before new acquaintances of such different culture as myself and even my men, and it was difficult to find out the reason for these whipping affairs. I have been told they were to settle disputes; to decide petty quarrels; as tests of endurance in entering manhood, or as a means of selecting a new leader when a vacancy occurred through death or the erection of a new or sub-village. Any of these reasons could easily have been a worthy excuse for the rite, but I have no proof of any being of major importance, as I found them constantly changing the conversation whenever whipping was mentioned.

Whips were numerous in every communal house, averaging almost one for every male who had a family. They were quite ready to display or even sell them, and I always purchased a few at each visit as they

were beautifully made and splendid examples of Indian workmanship. The whip had a handle about eight inches long,, one inch diameter, and was perfectly circular. The handle was invariably stained with a deep black dye and ornamented with their usual geometrical figures. At each end would be rings of coloured beads wound round, and there were also rings or tufts at the extreme end of the delicate red and yellow feathers of the toucan bird, attached by a thin silkgrass thread. Firmly attached by a lashing to one end of the handle, was a certain amount of long silk-grass fibre to form a core for the thong, and very gradually tapering to the end. Round and round the core from as near the handle as possible right to the extreme point was very carefully wound a long thin silk-grass string of about 1/32 part of an inch in diameter, in much the same way as the winding of our sewing cotton on a reel. The thong was now coated with their black vegetable pitch, care being taken to work it in to the hollows between the winding of the string until it formed one straight smooth thong. The thong was pulled constantly through the clenched palm of the hand to ensure perfect smoothness and the required high gloss or polish. These thongs were about 24" to 30" in length: rarely more than $^{1}/_{4}$" diameter at the butt and gently tapering to $^{1}/_{8}$" diameter at the free end.

This pitch is common to all Indian tribes and enters into daily use in the repairs and making of all their baskets, bows and arrows and anything that requires a slightly sticky adhesive or watertight surface. Pitch is collected in the forests from a tree that exudes a thick gum at any point of injury to the outer bark, such as the bore hole of a beetle, or more frequently from the cracks made in the bark by the tree increasing its girth at some favourable season. On contact with the air, the gum coagulates into a hard, almost stone-like, brown mass, when it is knocked off the tree and carried home and stored. When required, the mass is pounded ~~down~~ and put into an old earthenware cooking pot over a fire and melted down to a fluid, exactly as the cook renders suet at home. A thick scum of worthless material rises to the top, which is carefully skimmed off

and thrown away. According to what the pitch is to be used for and largely dependent on the individual's recipe or resources, a certain amount of rendered fat or vegetable oil is poured into the boiling pitch and vigorously stirred. A number of bamboo joints have meanwhile been prepared of selected diameter and length, into which the still boiling pitch is poured, when it is carefully put away to allow it to set. When completely cold, the bamboo can be split off, and they have a hard cylinder of pitch, one to three inches diameter, and from four to twelve inches in length, in which form it passes around as barter. Good quality pitch must show a jet black, shiny fracture free from streaks and blemishes, and should be about the consistency of cobblers' wax so as to adhere the more easily and freely when a string is drawn over. Too little fat or oil added, leaves it too hard and brittle; too much on the other hand, leaving it too soft and tacky, with a low adhesive point.

I had asked more than once for a demonstration of whipping amongst the Waiwai but the suggestion was always received with looks of dismay, and the subject had to be dropped as it was evidently rather distasteful. It was therefore not until my third or fourth visit, when I had completely won their confidence, that they staged a demonstration. Every tribe has its own national dance, strange to say, very closely allied in principle even over enormous distances, and a complete ignorance of the world beyond their own valley. These dances depend on the representation in some form or other of various animals by the various dancers. Knowing Chief Yufono very well by this time, I persuaded him to stage the Waiwai national dance. I found it took some days to prepare the various necessary costumes, and there were frequent idle hours while the various parties had to rest. I had been proposing a whipping match more to see how it was done, than as an exhibition of cruelty, as would seem to be the general run of such affairs. There were many objections. Apart from their own reluctance, I found it was the rule that every male in the village had to take part in the proceedings. Would my men face the ordeal ? On this trip, I had

only a few Taruma Indians with me and after some talk, they eventually decided to consent, but I countered by insisting that the show was to be more of a play, and that no severe whipping was to be done, and that there was to be no revenge taken for personal spite, or any official tribal position to be at stake.

At length, after due coaching and the payment of some articles of barter, all obstacles were overcome and a match arranged for the following day. As usual, the early hours of the day were spent in a further process of making the necessary dresses for the National dance. After the work was finished, there was a general bath and fully an hour spent on the decoration of the person of every male in the village; even the feather ornaments they had sold me had to be returned for the occasion. It was evidently a great affair to the men, yet the women displayed neither excitement nor curiosity. They went about the daily task just if it were an ordinary day, preparing food and drink, spinning thread or making graters, just as each woman fancied or necessity dictated.

A meal was served about noon, and every male brought out his stool and sat in front of the visitors' house while beer was passed round for some time. There must have been fully thirty adults assembled, and a brave show they made, every body glistening red, their faces adorned with red, blue, yellow, white and black diagrams, and every crown and feather ornament they could beg or borrow hanging on their bodies and limbs. A space was carefully swept clear of all litter or small chunks of wood just immediately before the seated crowd.

The chief had gone inside the communal house, and presently he emerged with some half dozen whips in his hand, which he ceremoniously laid out in a row. Standing up, he called out a name, whereupon a young man arose and carefully shed his every ornament, laying each ~~carefully~~ on his stool. Then he walked over and selected his whip. He now stepped on the sounding board, and after stamping a couple of times called out a name. Another man now rose, stripped off his ornaments, selected his whip, and with a stamp mounted the sounding

board in front of, and facing his opponent.

The first man, as challenger, grasped his whip by the two ends and raised his arms high above his head. For a second or two the pair eyed each other, then suddenly the challenged man struck his opponent a good lash round the waist, the thong running round the back and curving round till the point hit him in the belly with a rather suggestive snap. Immediately, up went his hands above his head, and the challenger struck him a return blow in the same manner. These alternate blows were exchanged some four or five times till the Chief gave an order, when both men, throwing their whips aside, sprang well clear of the sounding board and clashed together in a wrestling match.

The Waiwai style of wrestling is practically what is known as Cumberland Style at home, although shorn of the stately approach and the manoeuvring for secure and favourable grips. Each Indian passed his left or right arm over the opposite shoulder of his opponent, passing his other arm under his opponent's arm low down on the waist, when he met and clenched his hands over the small of the back as quickly as possible. Then began a trial of strength and cunning, each trying to upset his opponent by feints or trips so as to bring the adversary to the ground with the winner on top. Some of the wrestlers missed the chance to secure a good hold - speed was a great factor - and they would be ignominiously pitched in the dust. Some pairs got a good grip simultaneously and there were some exciting contests when weight, skill and other factors were equally matched. One man in the act of falling, by some feat of strength, actually whirled his opponent round and reversed their positions, thereby winning the contest. After the second match, they began to enter into the novelty of an almost painless, whipping match, and the various challengers would call out an opponent with a series of remarks on his appearance or his tribal reputation, at which there were peals of laughter from everyone. I don't suppose such a mild exhibition had ever been given, and soon everyone entered into the fun and apparently thoroughly enjoyed ~~themselves~~. himself.

so far, the Chief had taken no active part in the wrestling, but after an hour, he stepped on one side and began, in a very tense silence, to take off his many ornaments preparatory to taking part. His name had not been called, and I was wondering what was going to happen. I was not long left in doubt, but my surprise may be imagined, when, after three loud sounding stamps on the board he called out, "White man ! You, the Son of the Sun, you, who have come from over the Great Water which no bird can cross, I challenge you !"

I rather gasped, but at the age of 21, I had been the best wrestler in a little glen overseas, and as I had seen nothing so far that I confidently felt I could not easily deal with successfully, I promptly rose. I selected my whip, and approached him. His hands were high in the air and I struck him a gentle lash. Up went my hands and he gave me the return - a light blow presumably, but still one that stung like the mischief through the light shirt I was wearing. We hit each other the customary number of lashes; he flung his whip away and bounded some 10 feet clear of the sounding board and whirled to meet me. I was there to meet him and being no novice I was in and got a good hold as quickly as he did. For about two seconds, I felt as if I had hold of an oiled eel, then I received a quick thump thump, back and front, and there was the sun shining directly into my eyes ! The thump at my back was where I had hit the ground: that in front was where the Chief had fallen on top of me as I had refused to let him go, and I had been thrown as beautifully as I had ever been in my life.

I rose slowly to my feet and, Holy Smoke ! what a sight I was ! I had scraped enough red paint off my opponent's body to have given a coating to the entire hull of the "Queen Elizabeth", and feeling ridiculously small indeed I sought my stool to an accompaniment of broad grins and suppressed giggles. Once seated, I called for a long cigarette and did some figuring as to what had happened.

The wrestling was now fast and furious, the Chief challenging several men in succession. These he disposed of fairly easily, but

presently he almost met his match. Though he eventually grassed his man and won, it caused him to roll over and over in the dust, and when he rose he had enough earth and sand clinging to him as served my purpose. He was scarcely erect, when, whip in hand, I was on the sounding board bawling, "You red-painted, well-oiled varmint; You, Chief of the Waiwai, just step along and I'll teach you something !". No sooner said than done. The Chief met me all right, but now on vastly different terms. No longer was he covered with a quarter of an inch of oil and slippery pigment, and his coating of dust and sand made my grips secure. Swinging in what is known as a "crossbuttock", the Chief's heels described a lovely half circle and he lay, a very much surprised Indian, prostrate on the ground at my feet. Again we wrestled; he took his fall most sportingly: and again I won. I now retired to my stool in a stony silence, but no one challenged me any more.