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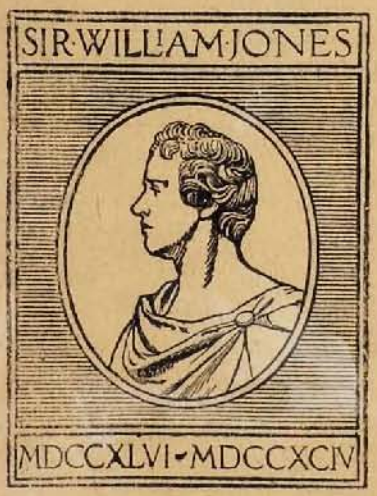
STUDIES IN SANTAL MEDICINE AND CONNECTED FOLKLORE

BY

THE REV. P. O. BODDING

PART III

HOW THE SANTALS LIVE



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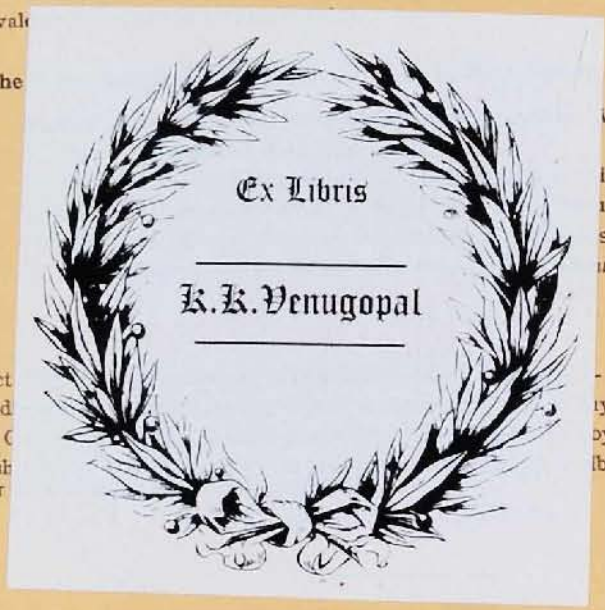

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HOW THE SANTALS LIVE.

By THE REV. P. O. BODDING.

CONTENTS.

PREFACE

The late Rev. P. O. Bodding of the Scandinavian Mission in the Santal Parganas and well known for his works on the life and customs of the Santals, proposed in 1922 to publish a series of monographs entitled ' the Studies in Santal Medicine and connected Folklore ' in the Memoirs of the Royal Asiatic Society of Bengal. This was accepted by the Council and Volume X of the Memoirs was assigned to the Series.

Part I of the Series under the title of ' the Santals and Disease ' and Part II on ' the Santal Medicine ' appeared in 1925 and 1927 respectively.

Part III, now published, is entitled ' the Santals and how they live '. The MSS. of this part was received from the author as early as March 1938, but the language of the author (whose mother-tongue was not English) required a thorough revision, and this was very kindly done by Mr. John R. Seal, the late Assistant Secretary of the Society. When, however, the first galleys were received from the Press early in 1939, the Society got the news of the death of the author in Denmark where he had settled down after retirement from India. As the work contained a large number of Santali words, a competent Santali scholar had to be found who could correct the proofs. In the Rev. Bernhard Helland of Mahalpahari of the Santal Parganas, a colleague and friend of the late Rev. Bodding, the Society was fortunate to get the required person, who very kindly undertook to go through the proofs and make all necessary corrections.

After the proofs were received from the Rev. Helland it was discovered that the Zoological and Botanical nomenclatures used in the monograph were faulty and required thorough revisions. The revision of the former was done by Dr. Baini Prashad, Director, and Drs. S. L. Hora, B. N. Chopra and M. L. Roonwall of the Zoological Survey of India. The Botanical terms were similarly revised by Dr. K. P. Biswas, Superintendent, Royal Botanical Gardens, Sibpur, and Prof. S. R. Bose of the Carmichael Medical College, Belgachia. The latter also took the trouble to identify the mushrooms mentioned in the Memoirs from local names as far as possible. The Society is greatly indebted to these gentlemen for the trouble taken by them in making the Memoir free from all errors.

Bengali equivalents of articles of food and other objects used by the Santals in their daily life have been given in footnotes wherever possible to make it easy to understand the process of acculturation that the Santali culture had undergone as a result of living in close contact with the Hindus of Bengal and Bihar.

The great wealth and accuracy of details of the beliefs and practices of the Santals given in the three parts, are unique, and the Rev. P. O. Bodding has set an example to ethnological literature which it will be hard to beat. The Society takes this

occasion to pay a tribute to his memory for his great contributions to Indian Anthropology, and for the services he rendered to it as its Anthropological Secretary for several years.

With the publication of this part the Series may now be regarded as completed with the exception of the index which will be issued separately later on. In the scheme that he submitted, the Rev. Bodding did not precisely indicate the number of parts or their contents that he had planned for the Series. It has not been possible to examine the papers and MSS. left by him which his widow has now removed to Oslo. His friend and colleague the Rev. J. Gausdal, has, however, very kindly offered to search the papers after the war for any materials on the Santals that he might have left. Should this attempt prove successful efforts will be made to put them into shape and publish them either in the Journal or the Memoirs of the Society according to their nature and subject.

B. S. Guha,
General Secretary,
Royal Asiatic Society of Bengal.

August 12th, 1940.
1, Park Street, Calcutta.

HOW THE SANTALS LIVE.

By THE REV. P. O. BODDING.

INTRODUCTORY.

As an appendix to what has already been related in the previous parts of this volume, it might be of interest to learn something about the way in which the Santals live, especially about what they use as foodstuffs and how they prepare them. This has a direct bearing on hygiene.

Many years ago now, when we in our part of the country had had a bad year, with resultant scarcity bordering on famine, the writer tried to find out what the Santals had been living on, in addition to their ordinary foodstuffs. The Santals had apparently been able to come through the hard times better than had people of other races, living in the same locality and similarly circumstanced as regards income.

A Santal undertook to write down a list of all the articles of food that he knew his people would eat. The list has been added to from several sources, and what is mentioned below may be taken as comprising most, if not all, that a Santal uses or may use for food. It will naturally be understood that the Santals have not all these foodstuffs available for use as they like. It is only intended to give the gastronomic range of the Santals in as complete a form as possible.

Instead of merely giving a list, the writer considers that it is of greater anthropological interest, so far as these affect hygiene, to furnish information of the every-day life of the Santal people, of the way in which they procure their foodstuffs, and prepare them for eating, when they are not eaten raw.

The present-day condition of the Santals is of note. They have, according to their traditions, (and these have been verified as far as possible) always been a wandering people, and they are so even now. This nomadic state may be due to several causes. They have been, and are still, very much behindhand in regard to civilization, and have consequently not been able to compete with their neighbours and maintain their position amongst other communities. At the same time they are a very prolific people. The families grow, and before very long they reach a stage, when their means of supporting themselves become hopelessly inadequate. The problem of economic existence must then be faced. Some may try to learn from their neighbours; but this will, with most of them, go very much against the grain. Consequently they seek other localities where they may be able to support themselves and live in their customary manner.

In a few cases all members of the race have, according to their traditional record, migrated to save themselves and preserve their freedom. But the writer's impression

is, that as a rule only part of the people have moved and kept up their old customs and practices to some extent in their new locality, while those remaining have gradually adapted themselves to what they find most suitable in their immediate environment. Something similar may be seen to-day. On reaching new spheres they will naturally be affected by the influences which they find there, and may, to some extent, adopt some of the local habits, customs and practices, so that they may not be regarded as entirely alien. Those on the move manage somehow to maintain their individuality as a separate people. The writer has often wondered, whether some of the many untouchable low-caste Hindus in Northern India may not have originally been some of the ancestors of the present-day Santals and other Muṇḍa peoples, that have remained behind and have formed themselves into fresh castes.

The Santals are not, by any caste rules, restricted or bound to follow a fixed occupation. It can, however, now be stated that they are well on the way to becoming settled agriculturists. According to the standards of others, e.g., of the neighbouring Bengali agriculturists, they are at present much behindhand. They do not know how to get the maximum benefits from the soil and their methods are still most primitive. To improve in this direction they will have to alter many of their ingrained habits as well as their mode of life. Also they must learn the value of money. It may be said that they have learnt the value of a pice, but, not the value of a rupee. This seems to be far beyond their capacity, and they suffer for it. In their forest life they naturally use barter and not money.

On the other hand the Santals are second to none in India, so far as clearing the jungle is concerned, also, except in manuring, in making the soil ready for cultivation, a fact recognized and taken advantage of by other people. As an example and proof of this the following fact may be mentioned. When the managers of the Lutheran Santal Mission, now nearly sixty years ago, impressed by what they saw of the wanderings of the people, were wishing to find a place, where part of the superfluous Santal population might settle down, they ultimately decided on a spot in the western part of the Goalpara district in Assam. Here was a tract of land that people in the near neighbourhood, both Hindus and Mohammedans, had attempted to bring under the plough, but had never succeeded. A tract of land, some 25 to 30 square miles was, with the permission of the Government of India, set aside for Santals' or others' cultivation. The soil was absolutely covered by what the Santals call *bir*, i.e., forest, not, however, of trees, but of an impenetrable kind of grass, measuring some 25 feet in height. It cost much, both in lives and labour, to clear the land; but the Santals stuck to it and succeeded where others had failed. At one time it seemed as though success would not be achieved, but in spite of the none too friendly attitude of Lieutenant-Governor of Eastern Bengal and Assam, the goal was reached. Where formerly no human being could live, we have now a population of some 7,000 Santals (and some others); where Government formerly had no income, they now receive many thousands of rupees in annual rent.

The time when the Santals relied on hunting, or on what they might find in the forests for their food, is not so far distant as to be forgotten. Anything even remotely

resembling a hunt is still enthusiastically enjoyed. The first thing that a Santal father makes for his boy to play with is a bow and arrow, a sure sign of the old mode of obtaining food supplies. They no longer think of, or rely on, hunting as a means to this end; but the glorious fascination of the chase and its possibilities hold a prominent place in their minds. The sports are deemed their greatest delicacies, and these they divide or send as presents to their relatives, even the female ones. They have retained much of their former knowledge of the edible products that are to be found in the forests and elsewhere wild. Their taste is apparently also less discriminating than that of their neighbours of other races, with some rather curious exceptions.

Many of the things found in the forests are constantly used, others only occasionally sometimes for a change of diet or for what they consider a delicacy, sometimes for genuine sustenance, when nothing else is available.

The Santal Village.

The Santals always live in villages, that is collectively; they are never found dwelling in isolation. As this in some respects is relevant to the subject dealt with here, it will be of interest to describe how the Santals set about selecting the site for, and building and establishing a new village. What follows has special reference to places where there is forest land. This description has mainly been based on what an old Santal sage, Kolean *guru*, related to the late Rev. L. O. Skrefsrud nearly 70 years ago.

Three or four men proceed with a leader to inspect a site in a forest, which has been reported to be a likely one. If, after entering the forest, any of three kinds of quails are seen flying, they say: 'Some day in the future a village established here will be deserted'. But if they see these birds sitting quietly on their eggs, or if they meet a tiger or see the footmarks of a tiger, they say: 'Some day in the future a village founded here will thrive and become prosperous, and we shall settle down here contentedly'. Continuing to investigate they select a site of the following nature, viz., a place where there is dry ground, where there will be room for good highland and homestead fields, where rice-fields can be prepared, and where water is readily accessible. Satisfied with what they have discovered they return home. (There is in all this a curious mixture of superstition and common sense.)

Later a day is fixed for testing the omens. They take with them one speckled and two white fowls, a little sun-dried rice, oil, *sindur* and water in a new *ṭhili*[1] (a *ṭhili* is a narrow-necked earthenware pot). The leader goes in the evening to the place where he intends to build his house and makes five *sindur*-marks. Close to the *sindur*-marks small heaps of sun-dried rice are made; the *ṭhili* containing the water is set down; the fowls are tied in a row, just far enough away to be unable to reach the rice. They then make an invocation as follows:—'Oh *Siń bonga* (Sun-god) in Heaven, like a bamboo mat thou art spread; the four corners, the four worlds thou hast covered; and ye, the Five, the Six of the earth (some *bongas*), in your name, as ye see here, in the virgin soil, the virgin forest, we are seeking omens; show these to us, the milk as

[1] *Ṭhili* in Bengali—*Ed*

milk, the water as water; having judged show them to us'. After this they depart to spend the night elsewhere.

Next morning they return and investigate. If a big fowl-feather has fallen, they say: 'A few grown up persons among us will die'. And if small feathers have fallen they say: 'Children will die here in the future'. And if no feathers at all have fallen: 'This is excellent, no one will die here soon'. And if the fowls have left droppings round about the place, they say: 'All in the village, well-to-do and poor, will thrive here'. If the birds have left droppings in a heap in one place, they say: 'The headman alone will become wealthy'. If the same is seen in two places, they say: 'The headman and his deputy will become wealthy'. And if in three places, then in addition to the headman and his deputy one of the villagers will also become wealthy. In the directions in which rice has been carried off by ants, in so many directions will it be necessary to discover the *bongas* and establish them. If the water in the *ṭhili* has dwindled a little, they say: 'After two years there will be scarcity of water'. And if the water has not dwindled at all, they say: 'There will be no scarcity of water'. If the fowls have disappeared, if there is no rice, and if the water in the *ṭhili* has dried up, they say: 'This place is ill-fated', and they leave it and will not found a village there.

But if there are good omens from the fowls, the rice and the water in the *ṭhili*, they dig a small four-cornered hole; on three sides of this hole they place the dug-out earth. With this earth they again fill up the hole. If it is filled with the earth lying on two sides, they say: 'We shall get full crops here'. But if no earth is left in filling the hole, they say: 'It is inauspicious here'. They then seek omens on another high place within the boundaries that they have set up, and in the name of another headman. They continue to act in this way, until all the omens have proved propitious. Ultimately such is bound to happen.

At a later date they return and put up some sticks against each other to make a shelter for the leader. The leader, who is to become the headman of the village, cuts down the first tree. Nowadays after they have investigated and fixed on the site in the forest, they ask the landowner for permission; formerly, before landowners made their appearance, there was no need for anything of this kind.

In consultation with the headman they now divide homestead fields amongst themselves. On each homestead field a hut for the family, and also a pen to keep the cattle in are erected. They then return to their old homes and call on each other, saying: 'When shall we start?' Taking their children and all they possess along with them they proceed to the new village. The exodus takes place during the months of Phalgun and Chait (from the middle of February to the middle of April, when there is little or no rain). All of them set to work to clear the jungle on their homestead fields; the trees cut down serve them for house-timber. Any timber left is burnt. Houses are built. Running along the middle of the site a clear space is left for the village street, and near the end of this is found the sacred grove, that is to say, a number of men become possessed by the national *bongas* and in this state show where the grove is to be.—So far old Kolean.

Before proceeding further, a few words about the houses of the Santals will be of value. They naturally build their own houses. Their original and also now not uncommon way of building a house is as follows: Nine wooden posts are required; formerly, as mentioned above, these were taken from among the trees cut down on the spot; now they have to be brought from elsewhere and paid for. The nine posts are fixed in the ground in three rows, three posts in each row, those in the middle being higher than those on the two sides. On the top of each of these three rows a heavy pole or beam (called *paṛ*), as long as the house is to be, is fixed. Next cross-beams are set up, one end resting on the outside posts and the other end being tied securely to the posts in the middle row. The rafters are then put in position; the old rule was twenty rafters (called *seṉer*) on each side of the roof. To keep these in place three sets of laths (called *bata*) are used, one set being tied at the top, another set in the middle, and a third set at the lower, the eaves', end of the rafters. On the rafters a framework of saplings (called *chaṭāṛ*, nowadays mostly of split bamboo) is tied, and finally the roof is thatched with grass (*saṵṛi*, Heteropogon contortus *R. & S.*). This grass which is excellent for thatching grows in abundance in the forests. Nowadays one may see fairly large fields of this grass on the outskirts of the forests guarded against the cattle. This *saṵṛi* is much stronger and more lasting than the paddy straw, that, for want of *saṵṛi*, is coming into use in many villages. When the roof is ready, the walls are made by placing branches or anything suitable between the posts and filling in with earth, the branches, etc., furnishing the necessary strength for the thin walls. The women finally plaster the wattle-walls with clay or earth that is kneaded into a dough. A layer of earth is spread on the ground inside the one-roomed house; this is trampled down hard, smeared with a dough of earth and made smooth with mud mixed with cow-dung. To complete the house a low earthen wall is built in one corner to provide a separate dwelling place for the ancestors (called *bhitaṛ*). In this closet rice and beer are offered to the *bhitaṛ* and to the house-bonga. No outside woman, (in some families not even a married daughter of the house,) is permitted to enter this closet. There is only one entrance to the house, generally with a mere apology for a door. A Santal house has no windows and only a few small holes high up in the walls, to let out the smoke. A fireplace of earth is also made inside, and along one or two of the walls contrivances are put up to accommodate paddy-bundles, or other possession. The inside of a Santal house is consequently quite dark. Except during the cold season, when the inside is warm, the Santals generally stay outside, both day and night. The inside of a Santal house cannot be either pleasant or healthy.

The form of the house mentioned is what the Santals call a *baṅgla oṛaḵ*, or gable house. It is rectangular in form, its breadth being two-thirds of its length; the original size is said to have been 9 by 6 cubits, but it is now generally considerably larger. Another form of house is called *catoṃ oṛaḵ*, lit. umbrella house, having a four-sided roof. The different Santal septs must have one or the other form of house mentioned, in which to live and have their *bhitaṛ*, the closet for the ancestors. Except where this type of house is necessitated by custom any other form of house desired may be erected. It is now quite common to find houses with walls of earth, the earth being

mixed with water and kneaded. When ready, it is formed into large blocks. It takes some time to build the walls properly and get them thoroughly dried. This kind of house will most likely become almost universal as they are cheap and easy to construct. For this kind of house small tiles, instead of thatch are now being used, an idea adopted from other races. It might be added, that the hole from which the earth for the walls is obtained is generally utilized as a dumping pit for all kinds of offal.

In the course of time more houses are built round the courtyard, a shed for the cattle and one for the buffaloes (if the family have any), sheds for goats and sheep are erected, and, when the family grows, more dwelling-houses—these, however, have no *bhitar*. For the pigs a small sty is made. The fowls live inside the dwelling-house at night. A few Santals have a dove-cot, generally in the middle of the courtyard. On the side of the courtyard, where there are no buildings, a fence, or sometimes a wall is built. One opening, with or without a door, leads out to the village street (called *chatka duar, chatka* being their name for the part of the street just outside the courtyard); another opening leads out to the *barge*, the homestead field.

As regards water, the Santals will always be on the look-out for natural springs and fetch water from these or from pools with constant water, or from tanks, streams or rivers. They may also dig wells to be used by the individual families, or by a number of people. While the men gather in the evening, (especially at the *manjhi than*, the place erected for the spirit of the original headman,) to have their talk, the women will meet in the afternoon (at *dak lo ber*, i.e., the water-drawing time, about five o'clock) at the place from which they fetch water to gossip and discuss everything. They always have large earthenware pots (broad-mouthed, called *tukuc*, or narrow-necked, called *thili*) standing on a special stand, or, more commonly, on a raised level surface at the base of the house-wall outside the house.

When visitors come, they are met at the entrance of the house with water and have their feet washed. A bridal pair going from house to house in the village to be regaled with molasses, have their feet washed at the entrance to every house. Before taking food, all Santals wash, especially their hands and mouth. In this connexion it may be mentioned, that they are careful with their teeth. When getting water to wash, before taking food, they also get a toothbrush, i.e., a twig of some suitable wood, more especially Sal. The end of this the user chews, so that it becomes like a brush, and then vigorously brushes his teeth. When this is done, he splits the twig into two, and with one of these he scrapes his tongue, and finally throws the twig away; it is used only once. All eating is done with the right hand. It would be dishonourable to use the left hand for this purpose or to offer it to anybody; it is used for washing parts of the body, and always after stooling.

Before commencing to describe what the Santals eat and how the foodstuffs are produced or obtained a few other matters connected with the life of the Santals may be mentioned. According to their traditions their ancestors must in former times have had a peculiar communal organization. It appears that each man occupied and owned as much land as he could cultivate in any one season. At the end of the

season all lands were given up to the village community, for redistribution for the next season. A part of this custom is still formally kept up.

In the month of Magh, i.e., the latter half of January and the first half of February, they have in every village what is called *Mag sim*, Magh fowls. The headman's messenger, the village *goḍet*, one of the village officials, collects from every Santal house one fowl and half-a-seer of rice with some salt and turmeric. On a fixed day he takes all that has been collected to the village priest to a place near water. After having had a bath (a bath is ordained before a sacrifice) the priest sacrifices the fowls to the national *bongas* and to a few *bongas* of the neighbourhood. (*Bonga* is the Santal name for the spirits or godlings, believed to be living on hills, in rivers, pools, tree-stumps, everywhere, and practically all believed to be malevolent and dangerous.) The sacrificed fowls are cooked with rice into a hash and eaten by the men present; they also drink beer brewed for the occasion. A formal meeting is then held. The village headman says: 'Now, Sirs, as is seen, we are at the end, the month of Magh. There is a month of Magh for the thieves (an expression that is explained as referring to the fact that there is nothing to be found in the fields or on the threshing floors by persons who would take anything, the only kind of thieving, viz., of foodstuffs, that occurred among the Santals of old); there is a month of Magh for the cultivators; there is a month of Magh for the village headman and his deputy; there is a month of Magh for servants male and female. We have consequently all got a month of Magh, so please, if any of you will become our village headman I will also resign in the month of Magh'. All the village officials formally resign in the same way. Thereupon the cultivators say: 'Also we, Sir, have finished. We give our agricultural lands and possessions into your hand, Sir, headman, for the hot season. We shall retain in our possession only our old sites; these we do not give into your hands. Our houses we shall also keep'. The 'sites' are explained as being their wives.

The whole of this nowadays is only a customary ceremony without any reality behind it, except as regards matters that are annually ended or renewed, as, e.g., the engagement of servants. For a few days after the ceremony bouts of beer-drinking are indulged in the village houses. Thereafter all is, as it was before. This is mentioned here as an interesting point marking a stage in the development of the Santals, when from being only jungle-dwellers and hunters they became also cultivators. This was before they became tenants of a landlord and subjects of a State.

The Santal Agriculture.

We have no record of how the Santals actually went about their first attempts at cultivation. It is just possible that one of their first attempts to get something out of the soil may have been something like what is now called *kurāu*, a mode of cultivation that is said to have been used also by Santals in former years, but is not practised by them at the present time, so far as is known. It is, however, still kept up by the Paharias living on the hills of the Santal country. A piece of jungle is cut down high up on a steep hill-side; when the wood of the felled trees is dry, generally towards the end of the hot season, it is burned. In this way the ground is cleared, and

when the rains set in, the seed is sown without any ploughing. The present-day Paharias make small holes with a crow-bar and drop the seed into the holes, especially of *bajŗa*, Sorghum vulgare *Pers.*, of maize and of a few other kinds. This is all, except that they may pluck away weeds. It is said that when the Santals in former times followed a similar mode of cultivation they simply sowed the seed (especially *bajŗa*) at the top of the cleared hill-side, the spreading being left to the water of the rains flowing down; in some cases, a branch of a Thorn-tree (Zizyphus Jujuba *Lam.*) is said to have been pressed into a flat shape and dragged over the ground to spread the seed.

The present-day Santals have naturally progressed further than this. They are, however, as already remarked, lacking much to make them good farmers. They have not as yet learned the need for and the benefits of weeding and manuring or of changing the crops, and much more. For example, they do not take proper care of their cattle. These are mostly herded by children who use much of the time for their own games and pleasures. When the paddy is harvested, the cattle are permitted to roam about. A direct result of this is that it is impossible for people to have any crops standing after the middle of December or thereabouts; the cattle would eat all; and the Santals only very rarely fence anything in.

They are on the way to become agriculturists, but are, as yet, far behind.

Rice has become the staple food of the peoples living in North-East India, where the majority of the Santals have their present home. Consequently rice is a food-stuff that the Santals have taken to. Rice is not their only nor their principal cereal; but they consider rice the best and most desirable, to such an extent, that if they cannot get rice, they now feel they have not had proper food. A Santal once expressed himself as follows: 'For us in this country rice is the finest agricultural product, because while all other cereals when eaten get the better of us, we never become tired of rice'. By this he meant that they were satisfied with rice and nothing was left over after a meal, whereas before, when they had eaten all they wanted of other cereals, something was always left over.

The cultivation of rice will be mentioned first on account of the rôle it plays amongst the present-day Santals.

The founding of a new village has already been described. It will be remembered, that when on the look-out for a site for the new village one of the main deciding factors is the suitability of the ground for the establishment of rice-fields.

A Santal considers it his birthright to fell trees; it has become an instinct with him to cut down. It is a pity that they have not learnt also to plant trees. Occasionally they have begun to form the habit of planting certain kinds, especially fruit-trees, in their villages, and to let some trees stand; but there is very much left for them to learn in this respect.

The present-day Santals prepare three kinds of agricultural fields; what they call *barge* (their homestead field), *goḍa* (highland fields, some distance away from their houses) and *kheṭ*.

Kheṭ[1] is a word borrowed from Hindi or Bengali, and is the name for a rice-field.

[1] *Kheṭ* means agricultural field in Bengali and is not confined to rice-fields—*Ed.*

The origin of the word is a sure proof that the Santals have adopted the cultivation of rice from others.

The Santals apparently enjoy preparing rice-fields. In a country like that in which the bulk of the people live at the present time, it takes no little work to do it. As is well known, the paddy plant must stand in water, or in moist soil, until it ripens. A rice-field must consequently be prepared so as to make this possible. The field itself must be absolutely level and furnished with ridges to prevent the water from running away. In a flat country, as in large tracts of Bengal, little work is required; in the parts where the Santals live, it is different. The country is hilly, and the surface only very rarely fairly level. The nature of the surface, combined with the necessity of having sufficient water, makes it natural for them to commence making rice-fields as low down as possible. These low-lying rice-fields where they may be fairly sure of having a sufficiency of water, are by the Santals called *baihaṛ*, i.e., first class or *aul* rice-fields. If there happens to be a spring with flowing water or a tiny rivulet in such places, they make what is called an *ahar* or a *hiṛ* (both expressions borrowed, *ahar* from Hindi, and *hiṛ* from Desi).[1] A small ridge or dam is thrown across the lower side of the depression to keep the water standing inside up to a certain height. The drawback to such rice-fields is prolonged inundation that may spoil the plants.

With certain restrictions the owner or tenant of a *baihaṛ khẹt* has a right to the uncultivated land lying directly above this, and a Santal will, as soon as he conveniently can, commence to make rice-fields there also. *Khẹt* situated on fairly flat, higher lying land are called *baḍ*. These rice-fields become less and less valuable for cultivation, the higher up they lie. Only in these years when there is an exceptionally heavy and late rainfall, do they get fair crops in these higher fields. Other crops than rice might well be profitably cultivated in these *baḍ*, if they would only learn how to go about it.

A special kind of rice-field is made in what is called *sokṛa*, a depression in the land running downwards like a tiny narrow valley. Here fields are comparatively easy to make. A ridge is thrown across the 'valley', the ground is levelled, and the field is practically ready.

The method of preparing a rice-field amongst the Santals is of interest. After having selected a suitable site they proceed to clear it of all vegetation. During this process the size of the field is decided upon. The land generally slopes a little, so that a ridge or ridges have to be made on the lower side. These ridges are roughly made at the time of levelling the ground, and when all is ready, they are properly dressed with the help of a *kuḍi*, a kodali, a kind of spade. The ridges have to be trimmed and repaired annually.

If there is little to be done, the whole may be finished with a plough and a *kuḍi*. To level the ground they generally use what is called a *karha*, a wooden earth leveller, drawn by a pair of bullocks or buffaloes.[2]

[1] Lowland Bengali—*Ed.*

[2] The *karha* is a piece of wood, some 1·5 m. (more or less) long, some 0·3 to 0·4 m. broad and some 10 cm. thick at the top side, and gradually sloping down to a broad edge. As they have no saws, the Santals (who make all such things

The final levelling is done when the rains set in and the *kheṭ* is filled with water, just before the planting of the rice. Considerable work is needed to get the field ready for the transplanting.[1]

themselves) fashion the *karha* with axe and adze. It is made of some strong and heavy wood (Sal, Mahua, etc.). In the middle of the top side a handle (the *karha kārmba*) is fixed in a hole cut for the purpose. It is a straight piece of wood. The size of the *karha* varies according to need; the smaller one is called *daṅgra karha*, bullock-leveller, and the larger one *kaḍa karha*, buffalo-leveller. At each end there is ordinarily what is called *naḳiċ*, comb, having one, two or three ' teeth ', called *sulạ*, on which an iron ring, called *halka*, is slipped down, when the *karha* is to be used. This form is called *naḳiċ karha*. In one form of *karha* there is no *naḳiċ*, but two rectangular holes are cut through the wood, one near each end. In this kind of *karha* the *halka* is put through the hole and kept in position by a piece of wood inserted, to prevent the *halka* from slipping through. This form is called *roṭoḳ karha*, cut-through leveller (from *roḳ*, to cut). There is a third form called *roṭoḳ naḳiċ karha*; this is so large that it would not be convenient to have the *naḳiċ* at the two ends. Two large holes are therefore cut in the body of the *karha*, equidistant from each end; on the inner side of each hole a *sulạ*, ' tooth ', is made to slip the *halka* in. The *karha* is, as stated, dragged by a pair of bullocks or buffaloes. To join the *karha* to the yoke a *karha ḍaṇḍiṛ*, a leveller-beam, is used, corresponding to the ploughbeam (*isi*). It is a piece of wood, frequently bamboo, some 2 m. long, or a little more. It is split in two at the *karha* end, with a hole at each end. Into each hole an iron hook, to which a *halka* is attached, is fixed. There are naturally two *halka*. At the yoke end the *ḍaṇḍiṛ* is whole; where the split commences (some 0·7 to 1 m. down) a cord is tied to prevent the beam from splitting higher up. In the case of a bamboo *ḍaṇḍiṛ* the *uṭi* or joint serves the same purpose as the cord. When in use the man in charge puts the *karha* down into the earth that is to be removed, like one would put in a spade; when the bullocks drag the *karha* along with the earth, the man holds the handle firmly to prevent the *karha* from turning over. When he has reached the spot where the earth is to be deposited, he lets go the handle, and then the *karha* automatically turns over. The earth is left lying there and the bullocks drag the *karha* back to the place where they started. On a new *karha* with three ' teeth ', the *halka* is placed on the lowest *sula*; when the *karha* becomes worn, the *halka* is put on the middle or the top *sulạ*. Some well-to-do Santals have instead of the *ḍaṇḍiṛ* two iron chains with a *halka* at the *karha* ends. Loose earth is naturally necessary for the operation. The use of a *karha* is therefore practically restricted to the autumn or just after rain in the dry season. Ploughing is often resorted to preparatory to using the *karha*.

[1] The Santal plough is a very primitive kind of implement, the wooden part of it being made by the Santals themselves. It consists of a piece of wood, bent a little naturally, so fashioned as to have an angle of 130° to 140°, each side of the angle being some 50 cm. long, and about 20 cm. broad at the thickest. The under- and back side is cut flat, while the upper side tapers towards the middle. The different parts of the plough have separate names: *nahel boḥoḳ*, the plough head, is the top back to which the handle (*kārmba*) is fixed. The part below the ' head ' is called *nahel koṛam*, the plough breast; the bottom, bending part is called *nahel ḍēke*, the plough buttocks; the two sides of the front part are called *nahel bulu*, the plough thighs, and the front point is called *nahel ṭoḍa*. In the middle of the front top a groove is cut for the ploughshare (the *pal*). This *pal* is a piece of flat iron, some 40 to 50 cm. long and some 3 cm. broad and up to 1 cm. thick. It is fixed in the groove (called *pal oraḳ*, ploughshare house) by an iron staple. This, the common Santal ploughshare, is called simply *pal* or *nanha pal* (a narrow ploughshare). Some Santals, especially those living near the Bengal lowland (*dęs*), have commenced to use what is called *dęs pal*, *dhalpa pal* or *khonta pal* (*dhalpa* means broad, and *khonta* is their name for a wooden bar with a flat iron head). This kind has a broad front, protruding a little from the wooden part. Just above the bend in the lower part of the ' breast ' a hole is cut. Into this the *isi*, the ploughbeam, is inserted. The *isi* may be what is called simply *isi* or *hoṛ isi* (a Santal ploughbeam); this has three notches on its underside, where it is to be joined to the yoke. Some use what is called *baṅgla* or *dęs isi*, a ploughbeam of the shape used in the Bengal districts, having no notches. Every plough has naturally a handle, *kārba* or *kārmba*. According to shape this is called *baṅgla k.* (Bengal ploughhandle), resembling the *caṇḍi paṭi k.*, that is nailed to the front side of the rear part of the plough, the top of the handle being pared so as to bend backwards; another shape is the *gāṛ boṭa k.*, a handle that is fixed on the rear side of the plough so far down that the *isi* goes through a hole cut in it (this is also called *pęnd laṭka k.*); a further kind is *roḳ* or *roṭoḳ k.*, a handle fixed in a hole cut in the back part of the plough. *Ṭir k.* is any kind of handle that has a grip fixed on its top. The part where the handle is fixed is called *hoṭoḳ*, neck. The ploughbeam is fixed to the yoke *arāṛ*, (quite a work of art with the Santals) by a bit of twisted leather thong called *naṅgle*.

A plough of the kind described can, as remarked, be used only when the soil is soft, just after a shower of rain or during the rainy season and some time after. It will not enter more than three to four inches into the soil. Santal ploughing is consequently no particularly hard work. A boy some ten years of age is called ' fit for ploughing '. It is one of their ways of stating the age of a boy. As a rule they plough in elipses; if they have more than one plough they follow one after the other. The Santals commence ploughing at about sunrise and continue for some four hours, rarely longer, and then only when they are pressed for work.

A Santal as a rule ploughs a rice-field four times before transplanting. The first ploughing of the season is called *paṛak*, lit. splitting. The soil is broken up and opened out for air and moisture. After some time it is ploughed a second time, the furrows running across those of the first ploughing; this ploughing is called *dęć*, lit. mounting, i.e., ploughing on top of the first furrows. These two ploughings are used for all kinds of agricultural land. In the rice-fields after *dęć* comes what is called *laṇuṭ* or *si laṇuṭ*, lit. powdering, or ploughing into powder. This is done shortly before the last ploughing operation, called *loṣoṭ*, lit. muddying. The object of this last operation is to get the water standing in the field thoroughly mixed with earth. The surface of the field becomes a kind of thick mud-soup, suitable for planting the paddy-seedlings in. Sometimes the third ploughing may be omitted; it depends on the situation and the amount of water.

When, as frequently happens, it is seen that the field is not quite level, they attempt to put this right during the two later ploughings, especially the last one. For this purpose they use an implement called *raksa* or *rakhsa*.[1]

As regards the cultivation of rice the following may be noted: Except for one kind all paddy is transplanted. It is sown, generally in a rice-field, broadcast. The seedlings (*gạchi*) stand there until they reach a size suitable for transplanting, when they are pulled out (this is done by women, often helped by men) and planted in the prepared fields. The ploughing is done by men alone, and the planting practically always by women. The seedlings, generally two or more together, are stuck into the mud-soup at a suitable distance from each other. It is quick work. One woman will without difficulty plant one-third of an acre during the day, or even somewhat more.

With the Santals in the eastern parts the paddy is generally sown during *ruhni*, the 13th *Jheṭ* and the following six days, i.e., approximately during the last days of May and the first days of June (Dr. Campbell says it is a period of 13 days but this is not so in the Santal Parganas). They have heard from Bengalis that this is the proper and most auspicious time to sow, and they try to follow the Bengali custom. They have an immense number of varieties, all named (I have 143 different names of varieties [2]). They have three classes of transplanted paddy (*hoṛo*, as they call it). The earliest varieties are called *bhạdoi hoṛo*, ripening in September (the name is derived from Bengali *bhāduí*, ripening in the month of Bhadra). Next comes *bạd hoṛo*, ripening

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When taking their ploughs out to the field they fasten the plough to the yoke carried by the bullocks, the *isi* during the transportation standing straight up in the air. When the ploughing is done for the day the plough is carried back in the same way, or the plough may be left in the field, the ploughshare alone being taken out and carried home.

[1] The *raksa* resembles the *karha*. It is a piece of wood some two to three mm. long and 15 to 20 cm. broad, slightly thinner than a *karha*. The *raksa* is slightly curved and has an edge. It has two holes cut equidistant from the centre for the *halka*, and has a handle (*raksa kārmba*) fixed in the middle. It resembles the *roṭoñ karha* and is worked very much like a *karha*. It is used only for levelling rice-fields just before the planting, and as it is used in watery mud, there is no need for the same strength as in the *karha*. Only few men in a village have a *raksa*. They willingly lend it to those who need such an implement.

[2] According to the traditions the Santals are divided into 12 septs and each sept (traditionally) into 12 subjects. There should be as many kinds of paddy; but there is one kind less. If there had been the same number or even one more, the paddy would have gained on the people and 'eaten' them. Now the people gain on the paddy, according to Santal talk.

about October, a little richer crop than the one previously mentioned (the name is derived from *bạd*, Desi *bader*, the high-lying land). Finally *bạihạṛ hoṛo*, the heaviest and best crop, ripening in November and December (the name is derived from *bạihạṛ*, the low-lying rice-fields).

As already mentioned they have one variety that is not transplanted, but sown broadcast. It is called *goḍa hoṛo*, (highland paddy), sown in May and ripening in August in the Santal Parganas. Here it is very rare; but, in Assam it is fairly commonly cultivated by the Santals living there. The name (*goḍa*) shows it is not cultivated in rice-fields, but in fields generally some distance away from their houses.

It might be further mentioned that wild rice, called by the Santals *uṛi*, Oryza sativa *L.*, may be found growing on the edges of water, and is eaten by the people.

When the paddy has been harvested, it is threshed. This is done on what is called *khạṛai*, a threshing-floor,[1] a roundish piece of ground, some 5 to 10 mm. across, plastered with earth and cow-dung. The threshing cattle walk round and round in the spread-out straw. The grain is cleaned and stored in large bundles covered by straw-rope (called *boṛ*).[2]

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[1] To prepare a threshing-floor the ordinary Santals have not only to find a suitable place and to do the necessary digging and plastering but they have to make sure that the place chosen is lucky or the opposite. They have a curious superstition that the place itself has something to do with the amount of grain they obtain from threshing. They go about it as follows: When they have found a place that seems suitable, they go there, some on the *bel boṛoṇ* day (a day of the Durga festival, as celebrated in their neighbourhood), others on the last day of the Jithia festival, and others again on a Sunday morning early (generally in the months of September or October). With a *kodali* they clean a small place and here make a cross-mark, what they call a *ḍhera dag* (the *ḍhera* is a hand-spindle having two pieces of wood fixed across each other in the middle). The cross-mark is sufficiently large, the two ditches of the cross being each about two cubits long, one running North and South, the other West and East. In the middle they dig a square hole, putting the earth dug out on the four sides of the hole. Next they again fill this hole up with the earth dug out. If it is filled up with the earth, well and good; it will be advisable to have the threshing-floor there. (Compare what is told above about a similar proceeding when choosing a site for a village.) But if not all earth goes into the hole, it will not do to have it here; they must find another place. Some Santals put the dug out earth on only three sides of the hole. Many Santals do not now, however, take such precautions. They simply chose a place haphazard. They go to the place chosen on one of the days mentioned above and with a *kodali* make a cross-mark. At the crossing they put *soṣo* (Marking-nut, Semecarpus Anacardium *L.*) leaves and a bit of a thorn-tree branch (some place a full branch). At the crossing they place the leaves turned upside down and put a small stone on each of them to keep them there, until the paddy ripens. When people see this, they understand that somebody has taken steps to make a threshing-floor there. As it is deemed safe to have several together, they will often arrange to have their threshing-floors adjoining. Besides, it is a pleasure so to arrange them as when watching during the nights; they can keep each other awake by telling stories, folktales, singing, etc.

[2] If they have more grain than they need for immediate future, they store it in what they call *bạndi* (bundles). These are made in the following way: A rope of straw (called *boṛ*) of sufficient length is made; with this they make a ring on the ground; on the top of this they put a layer of straw, and on this a basket (that is later on taken away) filled with grain; the *boṛ* is wound round this, more straw is added round the whole, and gradually more grain is filled in. When the required quantity of grain is reached the straw-rope is arranged in a ring (like it was done at the bottom), and the whole is tied up with some thin straw-rope (called *sikol*). This keeps the *bạndi* tight. A *bạndi* as a rule is made to hold some ten to twelve maunds (of 40 seers), but may be larger and also much smaller (e.g., when used for storing seed).

These bundles are naturally kept inside their houses; they have no other safe place for them. To keep them properly they always put these bundles on an erection called *ḍhulạ*. This has two solid pieces of timber placed besides each other a foot or thereabouts apart, resting on crossbars on top of some solid poles fixed in the ground; nowadays they have often supports, made of earth, for the parallel pieces of timber; these are about a cubit above the ground. The bundles are brought in and lifted up and placed in position on them. It is a practical arrangement, at a safe distance from the wall and the floor, safe against wet and animals. When some of the contents are wanted, it is easy to get a hand in between the layers of rope, without pulling the bundle to pieces.

We shall now hear how the Santals treat and use the paddy and rice.

The first is to husk the paddy; this is done either in a *ḍhiṅki*,[1] the common husking machine, generally by two persons, a man or a woman treading the one end, and a woman sitting at the mortar end, handling the grain; or in an *ukhuṛ*, a large wooden mortar, found all over the tropics and subtropics.

Before husking the paddy may be boiled and dried, or simply dried. It makes a very great difference in the nutritive value of the rice, whether it is boiled in the husk or not. When boiling the paddy in the husk, they proceed as follows: To start with they first soak the paddy in water in a large earthenware vessel for one or preferably two days. When thoroughly soaked, it is taken out and put into a suitable cooking vessel with a sufficient quantity of water and boiled. It is carefully watched with eyes and ears, with ears to be sure that the paddy is not scorched, and with eyes to see the steam rising, by which they know when the boiling is completed. When ready the cooking vessel is taken down and its contents spread out in any suitable place to dry. This takes two days. The paddy must not be exposed to the sun for any considerable length of time, as this, according to Santal experience, would cause it to become brittle, in which case it will break when husked, become like ant-heads, as a Santal woman expressed herself; and such rice is not satisfactory.

When properly dried the paddy is stored away until needed for food and then husked. To get properly clean rice the Santals husk it three times. The first operation, called *sẹṭẹc̀*, removes the *heṛẹ*, the husk itself; the husk separated from the grain is all placed in a *haṭak*, a winnowing-fan (made by the Mahles of bamboo), and sifted. The grain, being heavier, gathers at the back of the *haṭak* (kept lower down) while the husk by proper manipulation is gradually brought to the outer brim of the fan and thrown out. The husk is given to animals to eat.

After this the grain is pounded once more to remove impurities; this is called *tala*, middle (or second) husking.

To make the rice ready for cooking, it is pounded a third time; this is called *sọk̀*. The result of this operation is pure rice, from which all impurities have been removed, called *sọk̀ caole*, finally cleaned rice.

Santal women are clean and careful when preparing the food. When cooking rice they proceed as follows: First the cooking vessels and the fireplace are carefully cleaned; water, sufficient for the rice to be cooked, is poured into the cooking vessel and put on the fireplace with the mouth covered to prevent any impurities falling into it. The rice is put into another vessel filled with water, the object of this being to get all possible impurities removed. When the water in the cooking vessel is seen to be boiling, the rice is transferred to that vessel. The cooking is watched to ensure that all goes well and that the rice is properly cooked. An experienced woman will know this at sight; otherwise they test it by pinching. They must be sure that it is not overcooked, i.e., that the rice retains its shape and does not become a soft mass. When all is ready, the vessel is taken off the fire, the water is drained off, and something

[1] Bengali *Dheṅki*—*Ed.*

is put on the mouth of the vessel to prevent flies or impurities reaching the rice. When still suitably warm the cooked rice (now called *daka*) is served out in heaps on a plate (of brass, or, made generally, of leaves) and eaten together with curry (by the Santals called *utu*). Mention of this will be made later.

As is well known, rice treated in the manner described contains certain vitamins found in the husk, making the rice a healthy and nourishing food, whilst rice husked without having been previously boiled is inferior as food. Rice of the kind described is the ordinary food of the present-day Santals. Well-to do Santals will eat a little above half-a-seer of this rice daily. When providing food for our boarding schools we have found that this amount daily is quite sufficient, naturally with curry added. In the villages a family that can provide so much per individual per day is considered well off.

Daka is specially prepared for two meals daily, for a mid-day meal (called *mañjan*) and for *kedoḱ*, the evening meal, which is the principal one. Chance visitors of a family may partake of the *mañjan* meal; if anyone is invited as a guest (except to family festivals that occupy the whole day or part of a day, as the case may be), it is to partake of *kedoḱ*, the dinner,—as with many other races. They have a saying that poor people have their *kedoḱ*, as soon as it is evening, because they are hungry after the day's work, while wealthy people have it much later, sometimes even when ordinary people get up the first time after sleep, i.e., at about 1 A.M. They say that these people have had enough food during the day and have not worked on an empty stomach, if they have worked at all.

What is left of the rice, from the *kedoḱ*, is kept until the following morning and then eaten cold or together with *daḱ maṇḍi*, rice-gruel, at about 9 A.M. This meal is called *baskeaḱ*, lit., what is stale, a kind of breakfast.

The *daḱ maṇḍi* just referred to, lit. translated 'water-food', is the rice already mentioned, boiled in a quantity of water into a kind of rice-gruel. It may be the form of food used when they have little rice. It is also the form of food taken out in the forenoon to people engaged in agricultural work to enable them to continue without interruption. It may also be taken along (in a brass-cup) as food for the day or part of it, when any work takes one away from home.

It should further be mentioned, that they also use rice for what they call *khir* [1], a kind of rice-porridge [2]. The rice is boiled in water, and milk is added, when it is on the boil. No salt is used for this; but sugar or molasses may be added. This form of food is, however, not common.

Naturally they also have rice husked of unboiled paddy; this is called *adwa caole*, sun-dried rice, and is used for a number of purposes. The above-mentioned *khir* is prepared from this kind. They further make it into a kind of flour and use this for different kinds of cakes or bread (called *piṭha* [3], that will be described later on), for small rice-balls and sweetmeats of sorts. The last-mentioned comestibles may be prepared

[1] Bengali—thickened milk—*Ed.*
[2] Rice Porridge in Bengali—*Pāyash*—*Ed.*
[3] From Bengali—*Piṭhā*—Cake—*Ed.*

by the Santals themselves, but are mostly bought from Hindus. A curious point worthy of mention is that the *adwa caole* is the only kind of rice used in connexion with their spirit worship. They put this down on the magic circle or square, and the animal or fowl to be sacrificed is made to eat from it. When an *ojha* or the priest of the outskirts has to perform what is called *bul mãyãm* (offering of one's own blood), it is also this kind of rice that is used. The man pricks himself with a thorn, so that a little blood oozes out. He smears this blood on the rice and strews it as an offering to certain *bongas*. This rice is also used when seeking omens. The last-mentioned use of *adwa caole* might be thought due to the fact, that there is less work in connexion with preparing it; but it must not be forgotten, that its use is ordained, and that the use of the other kind is forbidden.

In connexion with rice *khaǰaṛi* and *taben* have to be mentioned. Both are generally bought from Hindus, but are also prepared by Santal women.

Khaǰaṛi (the *muṛi* of the Bengalis) is parched rice. Santals prepare it as follows: The boiled rice is well cleaned, and some salted water is sprinkled on it; thereupon it is dried. Sand is then put in a shallow earthenware vessel, that is placed over the fire. When the sand becomes burning hot, the rice is put into the sand, and it is stirred with a small 'broom' made of split bamboo. The rice is in this way quickly parched. It is eaten with molasses. Nowadays Santals will also eat it soaked in tea. It is also often taken along to serve as food on the road.

Taben is flattened rice. The Santals prepare this as follows: The rice is soaked in hot water and boiled a little, thereupon roasted a little and finally pounded in a *taben ḍhiṅki*. This has a broad pestle and no iron ring. The bottom of the mortar is also broad and level, so that the rice is pounded flat. One person treads the *ḍhiṅki*, while a woman works at the mortar. With her left hand she roasts one handful of rice, while with her right hand she keeps the rice in the mortar, until the portion there is ready flattened, and she continues in this way, until all is ready. *Taben* is used much like *khaǰaṛi* and is considered more substantial and sustaining.

The *kheṛ* is primarily made for the rice; but occasionally other crops may be seen cultivated in these fields, e.g., a kind of bean, that is sown among the paddy when the latter is fairly well developed. Mention of this is made later. During the cold season, after the paddy has been harvested, *guhum*, wheat, is cultivated by a very few Santals in the western parts, also barley (*jao*); but both these cereals play no rôle in a Santal household.

Let us now turn to what is cultivated on the *baṛge*, the homestead field. As already stated, the *baṛge* is the plot of land that is first cleared by a Santal settler. While the Santals never live singly, apart from each other, they will on the other hand, when there is sufficient room, not build their houses in a continuous row along a narrow street, as is often to be seen in the villages of other races. They will arrange a fairly broad and straight stretch of land (that ultimately becomes the village street), and on both sides of this each settler acquires a plot of land on which to build his house or houses. These plots may naturally vary in size, from half-a-*biṅha* up to two or even more *biṅhas* (one *biṅha* is about one-third of an acre, regularly 120 feet square). Each occupier will

have his private field, with fixed boundaries. Besides giving privacy it is a sanitary arrangement, although this last-mentioned fact has likely had little to do with the procedure, as is shown by the way in which they nowadays build their houses in many places, after having seen what other more civilized peoples do.

The *barge* is always a fairly level plot of ground, unsuitable for the cultivation of rice. How unpleasant and insanitary it would be to have rice-fields too close to one's living quarters!

Except for the space actually occupied by the houses, the land of the *barge* is all cultivated. As regards ploughing the two first ploughings are the same as for rice-fields (viz., *paṛaĕ* and *dęč*); then comes a final ploughing called *uṭhau* (raise, start, break up). While all other fields are simply only ploughed, the *barge* is manured with cow-dung, ashes or whatever other manure they may have.

The first and most important crop on the *barge* is *joṇḍra*, as the Santals call the maize or Indian corn (Zea Mays *L.*). The sowing of the maize is done by the Santals in the following way: A furrow is ploughed; a man goes along and drops the maize grains, one after the other, into this furrow at suitable intervals, closely followed by the ploughing bullocks. The earth thrown up by the plough covers the sown maize. Fresh furrows are then ploughed, and the sowing goes on in the same way but only in alternate furrows. To plant the maize in every furrow would make the plants grow up too close together. The Santals very often sow hemp seed in the furrows left without maize. This hemp, mostly what is called *jāṛī* or *kudrum jāṛī* (Hibiscus cannabinus *L.*) is generally ready in October.

They have quite a number of varieties of maize, named according to the size and appearance of the cobs and the corn, or according to early or late ripening, and so on. The following varieties may be mentioned: *Bagha joṇḍra*, lit. tiger-maize, having dark coloured grains between light coloured ones, the same also being called *kabra joṇḍra*, lit. spotted maize; *buru* (or *baru*) *joṇḍra*, lit. hill-maize, the cobs being so high that jackals cannot reach them (also called *moṭa joṇḍra*, lit. thick maize); *dudhia joṇḍra*, lit. milk-maize, also called *poṇḍ joṇḍra*, lit. white maize, the name being due to the colour of the grain *ḍhibri joṇḍra* puny maize, one of the earliest varieties with cobs so low that jackals can reach them (another name for this variety is *ṭoṭę joṇḍra*, *ṭoṭę* being a small gourd); *hardia joṇḍra*, the yellow maize; *muṇḍa joṇḍra*, the *Muṇḍa* maize, so called, because this variety is cultivated on the hills by the *Muṇḍas*, i.e., the Mal Paharias; *nanha joṇḍra*, lit. thin maize, cultivated by Santals in Assam and near water; finally *satolia joṇḍra*, very rare, said to have acquired its name from commencing to fruit when it has seven leaves.

In the Santal Parganas maize is generally sown in June, so that they can hoe the plants when there is a short break in the rains in July. This hoeing is of great importance for the growth. If too much rain prevents proper hoeing, there will be no, or only a very poor, crop. In other parts (as, e.g., in the Santal colony in Assam) the maize is sown at other times. I remember I once took a photograph in the colony of a field containing full-grown and half-grown maize and maize just sprouting, all at the same time.

As soon as the cobs commence to ripen, some are torn off. The covering leaves are removed, and the whole is suitably roasted, and they commence to gnaw off the grains. All Santals do this, especially boys may be seen occupied in this way with a cob. It takes some time to bite off all the grains. It is really a very tasty food, and comes to many as a great relief from hunger.

Most of the cobs are naturally left until fully ripe. As there is always the danger of cobs being stolen by people or taken by animals (by jackals and also by dogs, who at this time may often be seen with a long stick tied to their necks to make it impossible for them to get in among the maize plants), when the maize is grown in a place some distance away from their dwelling houses (in some old *baṛge* or some otherwise suitable field) they erect a *macan* [1] somewhere in the field. The *macan* is a kind of scaffolding, generally a small platform, resting on four slender posts, so high above the ground as to give the watcher a full view of the field. To guard against rain, etc., the posts are high enough above the platform to allow a kind of sheltering cover. Up here a man will stay during the night and keep watch. It is not pleasant to stay there alone. One may hear a Santal say, that he is going to be a bait there for a tiger.

When the ripe cobs are harvested (called *oṛeċ*, tear off), they remove the covering sheaths (this operation is called *sala*, remove impurities), that is to say, the covering sheaths are not torn off, but turned back, so that the grains are bare. If not needed for food at once, generally sets of four cobs (one *gaṇḍa*) are tied together by the turned-back sheaths, and these sets are again slung together, mostly in aggregates of 80 cobs (one score of *gaṇḍa*, called *poṇ*). The cobs are then hung inside on the crossbeams to dry and remain there, often discoloured by smoke, until needed. The Santal idea is that maize is best as food during the hot season, and if they can, they will keep it until April or even May. The Indian corn is calculated by the Santals to keep them in food from one to nearly two months.

In the *baṛge* and in the *goḍa* they also cultivate *bajṛa*, Sorghum vulgare *Pers.*; this is very commonly cultivated by the Paharias living in the hills in the Santal country, and is possibly one of the oldest grains cultivated by the Santals. They have the following varieties: *bandoṛneja* or *bandoṛleja b.*, lit. monkey-tail *bajṛa* (in Assam they call it *kaunia b.*); *bhaḍria* or *bhaḍoria b.*, so called because it ripens in Bhador [2] (Aug.-Sept.); *kuba b.*, having drooping (*kuba*, ears); and *sisua b.*, that ripens in Aghar [3] (Nov.-Dec.). This last one is, however, not botanically the same as the *bajṛa*; it is a Pennisetum typhoides *Stapf* et *Hubbard*. The grain is pounded after having been damped (this makes it easy to remove the husk of the grain). When made into a kind of flour, cakes (*piṭha*) are prepared from it; otherwise it is cooked like *daka*. It is said to have a sweetish taste and is eaten warm. When it is cold, it has no taste at all, they say.

When the crops mentioned are harvested, the *baṛge* is cleaned and ploughed for some cold-weather crops, certain pulses (*hoṛeċ*, *ghaṅgra* and *buṭ*) and oil giving plants (*tuṛi*, *tilmiṅ*, *surguja* and others). Mention of these will be made later.

[1] Bengali meaning platform—*Ed.*

[2] Bengali—*Bhādra*—*Ed.*

[3] Bengali—*Agrahayana*—*Ed.*

In connection with the *baṛge* one special matter should be mentioned. As *baṛge* fields belonging to separate tenants lie beside each other, it is necessary to have something to show the boundary. They generally have a small ridge, on which some plants grow. The most common of these is what the Santals call *sirom*, Vetivaria zizanioides *Stapf.* (It is from the roots of this that the still common *khas khas* tatties are made, although not by the Santals.) The culms are used for making the commonest broom that the Santals have. The culms are plaited together at the root end, the top ends being free. When this is rolled up, it makes an excellent broom.

The third class of land cultivated by the Santals is what they call *goḍa*, a piece of high-lying ground, generally a little distant from the houses. Officially it is called second class *baṛi* land. It is a piece of ground not suitable for rice. It is cleared of jungle and cultivated like the *baṛge*, but not manured. If, as sometimes happens, it is manured, it is called *baher baṛge* or *goḍa baṛge*.

The *goḍa* naturally represents the oldest attempts of cultivation amongst the Santals. Here they have a large variety of jungle corns that ripen early and help them through the hard times before the rice is ready. Santals often speak of one special advantage of these jungle corns: a mahajon (money-lender) will not take these to recoup himself.

The *goḍa*-crops are the following:—

Iṛi, Panicum Crus-galli *L.*, a millet, formerly very commonly cultivated by the Santals, now only occasionally. They have the following varieties: *sama iṛi* and *se māyām iṛi* (lit. louse-blood millet, from the colour of the seed); *koḳor jaṅga* or *koḳor kaṭa iṛi* (lit. owl-leg millet), Echinochloa colona *Link.*, var. frumentaceum. *Oḥoe*, Panicum miliaceum *L.* These millets are treated very much like *adwa caole*, i.e., dried, pounded and cooked. Then, too, a wild plant, *oḥoe iṛi*, is also used as food, but not cultivated.

Erba, Setaria italica *Beauv.*, a jungle grain cultivated like *iṛi*, but treated like *teke caole*, i.e., it is first boiled in the husk, then dried, pounded and cooked. What has been said about *iṛi* also applies to *erba*. It is not so commonly cultivated now. A curious point is that, in certain ceremonial talks, *iṛi* is used metaphorically about girls and *erba* in the same way about boys.

Gundli, Panicum miliare *Lamarck*, is a commonly cultivated millet, ripening by the end of August or the beginning of September. To thresh the *gundli* the Santals make small threshing-floors, quite separate from what they have for the rice. Their name for this (*gundli kharaṛi*), it is curious to note, is used metaphorically about a circular hairless area on the crown of the head. The *gundli* millet is, like paddy, first boiled in the husk after having been soaked. It is then dried and finally husked. When being prepared for eating it has to be carefully cooked, so as not to be spoilt. A sufficiency of water is put on the fire, and when this is heard to have reached boiling point, the grain is put in. *Gundli* is said to be quite satisfying. They name two varieties, one *layo gundli*, that will be mentioned further on, and *por gundli*, lit. bush millet, Echinochloa colona *Link.*, var. frumantacea *Fischer*.

Janhẹ, Paspalum scrobiculatum *L.*, a commonly cultivated millet. There are

two varieties, one called *bhador* (or *bhadoria*) *j.*, ripening in Bhador, and another *aghãr j.*, ripening in Aghar. *Janhẹ* is treated like paddy. It is sometimes boiled in the husk, dried and then pounded; or it is simply dried and husked. The husk is much less substantial than in *gundli*, and may be removed even in a hand-mill. The sun-dried husked grain is said to be what is commonly eaten, and to be sweet and tasty. The grain boiled in the husk, dried and then husked, is mostly used for brewing beer, and is considered by the Santals the best grain they have for brewing intoxicating beer. Even gruel prepared from it is believed to be intoxicating. I remember that, when I once wished to taste such gruel, they seriously warned me not to eat too much, otherwise it might make me drunk. They have a curious belief, that if a cobra or a rat-snake has been in the *janhẹ* field, this will cause the *janhẹ* there to become especially intoxicating.

Besides the cultivated *janhẹ* there is a wild variety, called *jera janhẹ*, Panicum flavidum *Retz.* This may be eaten, specially in times of scarcity.

Kukra is a grass, Setaria pallidifasca *Stapf* et *Hubbard*, found growing together with *gundli* and *janhẹ*, and is harvested and the grain eaten along with these; another name for the same is *cipra*.

Kọde, Eleusine coracana *Gaertn.*, is a millet, of which they have four varieties: *aghọnia k.*, ripening in Aghar (end of Nov.); *bhadria k.*, ripening in Bhador (Aug.-Sept.), *dasãe k.*, ripening in Dasae (Sept.-Oct.) and *kọkọr jaṅga k.*, lit. owl-leg *kọdẹ*, because the ears are reminiscent of the leg of an owl. *Kọdẹ* is cultivated somewhat like paddy, sown broadcast, the seedlings being pulled out and planted in a high-land field, a *goda*, or a *barge*. It is harvested and threshed like paddy. It is pounded into a powder, that is eaten in the form of cakes or together with rice or other cereals. *Kọdẹ* is not considered to be very good, but is said to be a food that will keep people in a fair condition during times of scarcity, and is consequently cultivated by most Santals.

Layo, Panicum antidotale *Retz.*, is a millet commonly cultivated on high-land fields. Sown in June, some transplant it, but generally it grows where it is sown. It is harvested in November and treated like *gundli*.

In connection with the cereals mentioned there are two kinds of grass, that in times of need may be used for food. One is the *sama ghãs*[1], Echinochloa colona *Link.*, often found growing as a weed in the rice-fields. The grass is an excellent fodder. In times of scarcity it is used as food, prepared into a kind of gruel (*dak mandi*). In addition *sumtu bukuc ghãs*, Dactyloctenium ægyptiacum *Beauv.*, may be used like *sama ghãs*. Children use the ears as toys.

Different forms of cereals prepared.

Before going further mention may be made of what the Santals call *pitha*, that is translated cake or bread. They have a large number, all differently named after the ingredients, the method of preparing, or the shape. Meal or flour, mostly of rice (always sun-dried, *adwa*)[2], but also of other grain, is made into a batter mixed with one

[1] From Bengali meaning Grass—*Ed.*

[2] From Bengali—'ātap'—meaning sun—*Ed.*

or more kinds of other foodstuffs and then fried or cooked. The different kinds of *piṭha* here follow in alphabetical order.

Aṛsa piṭha is made of flour, milk and raw sugar and is cooked in mustard oil. It is allowed to rise a little. Not common. Probably adopted from low-caste people. The name is derived from Desi *aṛsa*.

Chor piṭha, the same as *dul piṭha*, the name being descriptive of the sound heard when the batter is thrown into the boiling oil.

Dul piṭha, lit. cast cake or bread, made of rice-flour and molasses mixed in milk or water. The batter, flattened between the hands, is thrown into the boiling mustard oil. It is very hard to digest, but is considered to be the finest 'pastry' the Santals have.

Ḍombok piṭha, a ball-formed cake, made of flour and molasses. Cooked in water. (*Ḍombok* is a name for a round ball.)

Guṛ[1] *piṭha*, a cake made from the molasses of the Date palm.

Jel piṭha, meat cake. Sun-dried paddy is husked and cleaned, soaked in water for a little while, then dried and made into a coarse flour and sifted. The flesh is cut into small bits. Turmeric, pepper and other spices and salt are ground fine. All is well kneaded and mixed into the flour, that has been moistened. The whole is then pressed down on a leaf-plate. Another leaf-plate is with the help of straw-pins fixed on as a cover. The whole is placed into a fire-place, where there are live coals, and on top more live coals are put. When ready the whole is taken out and eaten. This is much relished. The flesh used is mostly that of pigs or of fowls, also of sacrificed animals.

Joṇḍra piṭha, a bread made from Indian corn and fried.

Jhinuk[2] *piṭha*, lit. mussel-cake. Two thin pieces of batter are made, or one large piece is folded over. Molasses and some *lobok* (bran of mustard or other stuff) are put in. The whole is then cooked in water. This is made for festivals, especially the *Sakrat*[3]. The name is descriptive of the shape, which is reminiscent of mussels.

Koḍe piṭha, bread made from the flour of *koḍe* millet. Fried.

Khapra piṭha, made from rice-flour. The flour is made into a batter with water, nothing being added, except sometimes a little salt. Some batter is put into a shallow earthenware dish (*karahe*); a little oil being rubbed on the batter to prevent it from sticking to the dish. An earthenware lid is pressed down on the batter; and the dish is then put on the fire-place and heated. When ready fried, the *karahe* is taken off and turned, so that the cake falls out, and fresh batter is put in. This *piṭha* is fairly large. *Khapra* is the Santal name for a roofing tile or a large potsherd.

Oḷ piṭha, mushroom cake, prepared like *jel piṭha*, with mushrooms instead of flesh or meat. If the opening of the fire-place is small, a large potsherd is placed on the fire. When this is sufficiently heated, the *paṭra*[4] (leaf-plate) with its contents is placed on

[1] From Bengali meaning molasses—*Ed.*

[2] From Bengali meaning mussel—*Ed.*

[3] From Bengali '*Śankranti*', the last day of *Paus*, when cakes are eaten—*Ed.*

[4] In Bengali *Pātra* means vessel—*Ed.*

this. When baked on the underside, the whole is turned over with a twig to get the other side baked.

Parwa piṭha is the same as *jel piṭha*, but made with the flesh of pigeons.

Paṭṛa piṭha is any flour-batter placed between two leaf-plates (*paṭṛa*) and baked like *jel piṭha*.

Sakam piṭha, the same as *paṭṛa piṭha*, except that instead of a leaf-plate one large leaf (*sakam*) is used.

Sim piṭha is the same as *jel piṭha*, the flesh of fowls (*sim*) being used. This is especially used by ojhas, when they have sacrificed fowls.

Serving of food.

The Santals have no tables, no chairs, no knives, forks or spoons, and no dining room. People belonging to the family may take their food inside or on the verandah, if they have one. As a rule they will sit down on the ground in the courtyard. This is generally plastered with cowdung and carefully swept and cleaned, before they sit down, or mats are used. The food is served in whatever utensils they may have. Nowadays they generally have one or more brass-plates and brass-cups. These are, however, of fairly recent introduction and bought from other races, especially Hindus. When they have no such vessels, or if these are insufficient, they have to use their old plates and cups, all made of leaves. These are invariably used only once and then thrown away. To use these on more than one occasion, even by the same person, would be considered a terrible thing, opposed to all rules of cleanliness and quite impossible.

The leaf-plate (*paṭṛa*) is made of any kind of leaf that is large enough (especially leaves of the Sal, Shorea robusta *Gærtn.*, and of the Mahua, Bassia latifolia *Roxb.*). To make a leaf-plate a dozen or more leaves are used, always of the same kind, not different ones mixed together. The leaves are pinned together with bits of hard dry straw. This work is done by women, although a few men have also learnt how to make them. Leaf-plates are especially made at the commencement of the hot season in large numbers. The women collect leaves that have fallen and are in good condition. If too dry, they are wetted during the operation. Santals keep high piles of ready-made leaf-plates to have for use during the coming rains, their working season, or for guests. A leaf-plate is round and up to about 30 cm. across.

The leaf-plate is used for *daka*, cooked rice, which is served on it in heaps. Cooked rice is nowadays the principal food of the Santals, and consequently *daka* is a term commonly used for food in general, something like the English use of the word 'meal'.

As previously remarked *daka* is not eaten alone, something has to be added that, having value as a foodstuff, also imparts taste to the otherwise insipid rice. This is curry, called by the Santals *utu*, i.e., pulses, meat, flesh, or practically anything eatable, that can be made into *utu*. *Utu* is described in detail later.

Utu is served in brass- or leaf-cups. The brass-cups need no description; they are small bowls bought in the bazar. The leaf-cups (*phuṛuk*, as the Santals call them) are made of the same kind of leaves as the *paṭṛa*. The Santals have several kinds of

leaf-cups, named according to their form or use. All leaf-cups naturally have the leaves so turned up and folded, that they form a cup which is compact enough to retain fluids. As it is of some ethnological interest, a list of the Santal leaf-cups is given here.

Aṭal phuṛuk, lit. layer-leaf-cup, is made of two Sal-leaves placed side by side with two others on top of these, all stitched together with straw-pins. Sometimes double leaves are used.

Boṅga bhãutiċ ph., made of one leaf, with straw-pins at four corners, used for drinking milk, also for keeping sun-dried rice, sindur, etc., at the time of sacrifices.

Bhãutiċ ph. is made of two leaves placed one across the other, and is used for any kind of *utu*, also for fish curry (then called *hako joṃ bhãutiċ ph.*), and also for curds.

Cuṭiul ph., lit. pigtail leaf-cup, made of one leaf. It is used for serving out beer and is very small. Its use is considered niggardly.

Ḍaṅgra joṃ ph., lit. ox-eating leaf-cup, is made like the *aṭal ph.*, but of very large leaves, and is used for meat curry.

Ḍhoṇḍra ph., a large leaf-cup, made of one leaf. (Desi *dona*.)

Ḍhoṇḍra khalaḳ, a large leaf-cup, made of two leaves. *Tale ḍhoṇḍra*, made of the leaf of the Palmyra palm, especially used for drinking *taṛi*, liquor (toddy) made from the Palmyra or Date palms.

Haṇḍi[1] *ph.*, lit. beer leaf-cup, made of one leaf, both ends pinned. As the name shows, this is used for drinking beer. The same kind is also used for water or milk when given to children.

Jel ph., the same as *aṭal phuṛuk*, but used for meat or flesh curry.

Khalaḳ ph., a large leaf-cup, made of four leaves (Sal) pinned together, used for certain foodstuffs, such as tripe.

Paṭṛa khalaḳ ph., very large, pinned like the *paṭṛa*, leaf-plate.

Soṛha ph., the same as *aṭal ph.*, of large leaves, used for any kind of curry, also for *daḳ maṇḍi* and *nim daḳ maṇḍi*, the rice-gruel with nim added. It is also called *soṛwa*.

Utu ph., the same as *aṭal ph.*, except that as the name implies it is used for curry.

Tale ph., a leaf-cup, made of the leaf of a Palmyra palm (made by men only), used for drinking or for carrying flesh, etc.

Coḳoṛhaṭ, a leaf-cup made from one leaf, the stalk end of the leaf being folded on both sides of the midrib. If there is sufficient stalk, this is used as a pin; otherwise a bit of stiff straw is employed. This is used for serving out dry, especially parched, food.

Cukṛũċ, a leaf-spoon; the leaf is folded from the tip twice over, so that the tip comes round to the stalk on one side and is there fastened with a straw-pin. This is used for *daḳ maṇḍi* and water.

Dolkha, the same as *khalaḳ*; the word is seldom used by the Santals, but by the Mahles.

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[1] Bengali jug—*Ed.*

Cultivated vegetables.

Curry, called in Santali, as already stated, *utu*, is never eaten alone, but always with *daka*, cooked grain, mostly rice. It is an important part of the Santal diet, and also imparts taste to the otherwise somewhat insipid *daka*. *Utu* is prepared separately, and either cooked with turmeric, spices and salt, or cooked in oil. Vegetables are also cooked in water, when no oil is available.

The Santals cultivate the following vegetables and pulses, and these are mostly used for *utu*:—

In parenthesis, it may be noted, that the Santals prepare what they call *dal*[1], split pulse (of all dicotyledonous fruits), for use in their *utu*. The *dal* is prepared in a hand-mill, the kernel being generally (but not always) roasted before being ground. When being prepared for *utu* the *dal* is first boiled long enough to dissolve it and spices and salt are then added with the oil.

Raher[2], Cajanus indicus *Spreng.*, is one of the most commonly cultivated pulses of the Santals. It is frequently sown together with the maize in the *barge*, but also alone. They have several varieties, mostly named in accordance with the time when they ripen, thus:—

Aghār raher (or *aghonia*), ripening in Aghar (Nov.-Dec.), *mangi* (or *magi*) *raher*, ripening in Magh (Jan.-Feb.), *caitali raher*, ripening in *Cat* (March-Apr.), and *lapra raher*, so called on account of its large and broad pods.

Buru raher is quite another plant, Cyamopsis tetragonoloba *Taub*, not cultivated by itself, but sown along the borders of a field together with some other crop. It is considered a crop for times of scarcity. There is also a wild plant resembling the *raher*, that in times of scarcity is eaten raw.

Kesari[3] (or *kisari*), Lathyrus sativus *L.*, is sown in rice-fields in Aghar (Nov.-Dec.) when the heavy paddy has ears. It is left, when the rice is cut and is harvested in *Cat* (end of March). This plant is not to be confounded with *lal kisari*, Eclipta alba *Hassk.*, var. prostrata, or with *lau* (or *tandi*) *kisari*, Eclipta prostrata *L.*, used in Santal medicine, but not eaten; both these are wild plants.

Ghangra, Dolichos iat Jang, *Linn.* is a commonly cultivated bean. The Santals distinguished a number of varieties: *Aghanua* (or *aghonia*) *gh.*, ripening in Aghar, *bhador* (or *bhadria*) *gh.*, ripening in Bhador, *cihri gh.*, (acc. to Dr. Campbell, not known in the Santal Parganas), *boda gh.*, having large beans, *dasae* (or *dasmi*) *gh.*, ripening in Dasae, *dan gh.*, grown on wooden supports (cultivated like *malhan*, q.v.), *mota* (also called *buru*) *gh.*, having small beans, and *sutri gh.*, having small thin legumes.

Ghangri, a variety of *ghangra*, ripening in Bhador.

Horec, Dolichos biflorus *L.*, largely cultivated during the cold season, are beans used for *utu* and *satu* (a kind of flour or meal). Women who have borne a child are allowed only *horec utu*, until they are cleansed. *Horec* is also used medicinally. Water

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[1] *Dāl* is also used in Bengali and Hindi for cooked pulse—*Ed.*

[2] Arhhar (Bengali)—*Ed.*

[3] Bengali—*Khesāri*—*Ed.*

in which *hoṛeć* has been boiled is used to wash the mouth of animals suffering from mouth disease. A mixture of crushed *hoṛeć*, salt and pigeon excreta is put on boils to ripen them. The Santals distinguish between *poṇḍ* (white) and *heṇḍe* (black) *hoṛeć* in accordance with the colour of the beans, but they are not botanically different. Besides they have *disom hoṛeć*, lit. land-*h.*, Glycine Soja *Lieb* and *Zucc.*, cultivated, eaten parched (*ata*, *saṭu* or *khicṛi*, cooked with rice), and *bir disom hoṛeć*, a wild variety of the preceding, used in Santal vet. medicine; also *bir hoṛeć*, Attylosia scaraboides *Benth.*, a jungle plant, not cultivated, but sometimes eaten. It may be noted that this plant is successfully used by Santals against foot and mouth disease.

Rambṛa, Phaseolus radiatus *Roxb.*, is commonly cultivated. Also, *Ghaṣuạ rambṛa*, (?) Phaseolus Max *Roxb.*, a variety planted on rice-field ridges, having black beans.

Alpaluạ, Phaseolus aconitifolius *Jacq.*, is sown with *janhẹ*, or cotton, or alone. It is not extensively cultivated and is used for *daḷ*.

Buṭ, gram, Cicer arietinum *L.*, is cultivated, where the soil is suitable, perhaps more now than formerly. *Bir buṭ*, Flemingia congesta *Roxb.*, a jungle plant, of which the fruit is eaten. The fruit resembles *buṭ*, hence the name.

Sutri, Phaseolus calcaratus *Roxb.* is cultivated together with maize or *ghaṅgra* and is called *sutri ghaṅgra*.

Tiri riti, a kind of pulse, is found growing in the rice-fields in the cold season together with *kisaṛi*. The *daḷ* is eaten. Its leaves are also used for curry.

Maṭor, Pisum sativum *L.*, and Pisum arvense *L.*, the pea, is very rarely cultivated by the Santals but is bought in the shops.

Maṣri [1], a pulse, Lens esculanta *Moench.*, is cultivated in certain parts.

Muṅ [2], a cultivated pulse, Phaseolus Mungo *Linn.*, var. Max., is commonly grown.

Malhan, Dolichos Lablab *Linn.*, the common bean, is cultivated in gardens or near the houses. They have a number of varieties: *Ato malhan*, lit. village bean; *arak m.*, having reddish pods; *bilaṭi m.*, lit. Europe-bean, any bean introduced from Europe or America and cultivated in gardens; *dũṛī m.*, a bean having long and roundish pods (so named because the pods are reminiscent of the eel-like *dũṛī* fish); *ḍuriạ m.*, a variety having more than one pod from the same raceme; *geleẹ m.*, a variety of Dolichos Lablab *L.*, having the legumes on an erect spike; *heṇḍẹ m.*, a variety of Dolichos Lablab with blackish legumes; *kurse m.*, a variety with purple-coloured flowers and legumes; *laṗṛạ m.*, a variety with broad legumes; *poṇḍ m.*, a variety with white flowers and legumes and white beans; *reṭheẹ m.*, a variety of Dolichos lignosus *Linn.*, having small pods and leaves (also called *turi m.*, mustard beans); *uṭi m.*, a variety of Dolichos Lablab, having pods at 'joints'. Beans are naturally also eaten raw. From beans the Santals also prepare what is called *malhan suṛe*, a bean hash. The ripening pods are cleaned and cut into two or three pieces and then boiled; when sufficiently soft, rice is added and the whole cooked into a hash that is eaten instead of rice and curry.

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[1] Bengali *Musũri*—*Ed.*

[2] Bengali *Mug*, Hindi *Mung*—*Ed.*

In times of scarcity the seeds of *bheḍa dereṅ*, lit. Ram's horn, Cassia Tora *L.* (also called *cakaoḍa*) are eaten boiled together with mahua flowers. The tender leaves may also be used in curry.

Besides the leguminous plants mentioned the Santals cultivate a number of plants, the fruits of which are used for curry or otherwise eaten. These plants are mostly kept growing singly or a few together, near the houses, often so that they run up and have fruits lying on the roofs.

Beṅgaṛ [1], the egg-plant, Solanum Melongena *L.*, is commonly cultivated. They recognize the following varieties: *Baromąsią* [2] *b.*, so called, because it is fruiting the whole year (also called *barse b.*); *ḍhuḍuą b.*, having large round fruits (so named because the fruits resemble a *ḍhuḍuą*, an oil container of leather); *hęndę b.*, having blackish fruits; *jhompa* [3] *b.*, having two or three fruits from a common stalk (*jhompa* means 'in clusters'); *kąjri b.*, having greyish fruits (*kąjri*, having dark spots); *kọṛcę* (or *kuṛcą*) *b.*, the tomato, now commonly called *belati* [4] *b.*, European egg-plant, recently introduced and not as yet commonly cultivated by Santals; *pąilą b.*, lit. seer egg-plant, having large round fruits; *sọela b.*, having long fruits (*sọela* means long and sharp pointed). The fruit is cooked in oil.

Jhiṅgą [5], Luffa acutangula *Roxb.* The Santals recognize the following varieties: *Cąr siṛą jh.*, lit. four-edged *jh.*, fruit having sharp ridges; *ḍurią jh.*, bunch *jh.*, having several fruits from one stalk; *jhompa jh.*, cluster *jh.*, the same as *ḍurią jh.*; *niṛọn jh.*, hot weather *jh.*, cultivated during the hot season; *kąilą jh.*, lit. light-coloured *jh.*, resembling the *ḍurią jh.*; *jhiṅgi*, the same as *jhiṅgą*, but having only small fruits. In addition: *Porol jh.* (also called *pọṭọl* [6] *jh.*), Luffa aegyptiaca *Mill.* ex *H.f.*, uncommon; and *Ram jh.*, Hibiscus esculentus *L.*, lady's finger, commonly cultivated.

Họṭọl, the bottle gourd, Lagenaria vulgaris *Ser.*, is largely cultivated by the Santals, both on account of its fruit, which is used for curry, and for the shell of the ripe and dried fruit, which is used for all kinds of vessels, and, formerly, was practically their only kind of vessel. The Santals distinguish several varieties, according to the shape of the fruit: *Jante* [7] *h.*, fruit resembling a mill-stone (*jante*); *jeleṅ h.*, the fruit being long; *ląuą* [8] *h.*, having a more or less globular fruit (*ląuą* is a name for cup); *bhąrią* [9] *h.*, having only one fruit (*bhąrią* is the word for carrying on the shoulder on a yoke, bangy pole); *poṇḍ h.*, fruit white; *hąriąṛ h.*, fruit green when ripe; *mare h.*, having only one fruit (also used about an old, last year's fruit). The varieties mentioned are what they call *sebel*, meaning tasty, eatable. There is one variety called *haṛhaḷ h.*, bitter bottle gourd. This is not eaten, but its shell is very serviceable for making cups, ladles, water-bottles, etc. *Bokak họṭọl* is of this bitter kind. The fruit has a peculiar form, being narrow close to the stem and having a round head at the other end. When this is cut with a sickle made red-hot along the middle, two serviceable

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[1] Bengali *Begun*—*Ed.*

[2] From Bengali *Bāro*=12; *Mās*=month—*Ed.*

[3] In Bengali also called *Belati Begun*—*Ed.*

[4] Bengali *Jhinga*—*Ed.*

[5] Bengali *Jhāṛ*—*Ed.*

[6] Bengali *Patol*—*Ed.*

[7] From Bengali *Jaṅta*—*Ed.*

[8] From Bengali *Lāu*—*Ed.*

[9] From *Bhār* in Bengali meaning 'load'—*Ed.*

ladles are obtained. To do away with the bitter taste the ladle thus prepared is filled with cow-dung and ashes and left for about a fortnight; then all is scraped out with a mussel-shell. These are used for ladling out rice and curry. Implements made from the bottle-gourd are supposed not to become defiled. (*Bokaṫ* means ladle.)

Kohṇḍa[1], pumpkin, Cucurbita moschata *Duchesne*, is cultivated everywhere by the Santals, and its fruit eaten as curry. They differentiate varieties in accordance with the shape of the fruit and the season when cultivated. *Jante k.*, fruit resembling a mill-stone; *jeleṅ k.*, fruit being long; *ṭukuć k.*, having fruits shaped like a *ṭukuć*, an earthenware water-pot; *poṇḍ k.*, having light-coloured fruits; *niroṇ k.*, cultivated during the hot season.

Karla[2], several creepers are so called. *Deko karla* (also called *haṛhaṫ k.*), Momordica Charantia *Linn.* and Momordica muricata *DC.*, is commonly cultivated; the *haṛhaṫ k.* has a bitter fruit. *Ghi* (or *sebel*) *karla*, Memordica dioica *Roxb.* ex *Willd.*, the fruits of which are used in curry, before they are ripe. They also recognize *ato karla*, the cultivated kind, and *bir karla*, lit. forest *karla*, that is wild. The leaves of this are edible and are called *kacan aṛaṫ*. These are often found when they are out hunting and are used in curry.

Kundri; there are two kinds, *ato kundri*, Cephalandra indica *Naud.*, = Coccinia cordifolia (L) *Cogn.*, commonly cultivated; and *bir kundri*, Melothria heterophylla *Cogn.* The fruit and tuber (called *at*) are used in curry. The plant is dioecious, the male creeper being called *aṇḍia kundri*, the fruiting one *eṅga kundri*. The tubers of both are eaten boiled or roasted.

Poṭol, Trichosanthes dioica *Roxb.*, is only rarely cultivated by the Santals, but is very common amongst Bengalis. The ripe fruit is much used in curry. Dr. Campbell mentions two varieties, *geṇḍ poṭol* raised from tubers, and *palta poṭol*, raised from cuttings. These distinctions are not known among the Santals in the Santal Parganas, most likely because there is little cultivation.

Ato piṇḍe, Amorphophallus campanulatus *Blume*. Cultivated; the tuber is peeled, steamed and eaten with mustard and *amtha*, the inspissated juice of the tamarind or the mango. The tamarind is soaked, the stones pressed out, and the pulp kneaded, This is then dried and made into balls that are preserved for use as a condiment with curry (especially fish curry). There is also a *bir piṇḍe*, a small forest tree, Randia uliginosa *DC.*, the fruit of which is eaten as curry.

Saṛu, the Taro plant, Arum Colocasia *Linn.*, or Colocasia Antiquorum *Schott.*, is commonly cultivated. The tuber or corm is eaten, also the stem and leaves (all in curry). The Santals recognize a number of varieties: *Aṛaṫ saṛu*, of which only the leaves are used; *bir saṛu*, a wild Taro, the leaves of which are eaten in curry (Roxb. considers this only a variety of Arum Colocasia); *bhaluk liṇḍhi saṛu*, lit. bear-hindquarters Taro, a variety; *bhoṇḍa saṛu*, a variety with large corms (*bhoṇḍa*, fat, unwieldy); *deko saṛu*, a variety cultivated by Dekos; *hoṛ saṛu*, a variety especially cultivated by Santals; *kanda saṛu*, Arum Colocasia *Linn.*, a variety with one large corm; *mukhi saṛu*, cultivated; *picki saṛu*, cultivated (the two last varieties are mentioned by Dr. Campbell);

[1] Bengali *Kumra*—*Ed.*

[2] Bengali *Karala*—*Ed.*

roho̤e saru, any planted variety may be so named (*roho̤e*, to plant). Besides the *saru* already mentioned they have two different plants, also called *saru*, viz. *kaṇṭa saru*, Lasia spinosa *Thv.*, that is planted near water for the medicinal use of its corm, and *man kanda saru*, also only used for its medicinal properties (the corm being applied to painful spots).

Kaera, the plantain, Musa sapientium *L.*, or Musa paradisiaca *L.*, is fairly commonly planted near the courtyard, but as a rule only the coarser varieties are grown.

In connection with the plants just mentioned the following may be noted:—

Aṛk[1], the sugarcane, Saccharum officinarum *L.* The Santals distinguish a number of different kinds which, however, are not botanically different:—

Bajŗa aṛk, resembling the *bajŗa*, Sorghum vulgare *Pers.*; sown in June, cut in Nov.-Dec., not irrigated.

Basta aṛk, white, planted and cut like *kaṛjri aṛk*, q.v.

Bombae aṛk, reddish, thick, planted in June, cut in April, irrigated.

Kaṛjri aṛk, reddish, planted in June, cut in March; requires irrigation.

Paṛchiaṛi aṛk, also called *raonda aṛk*, whitish, planted in November, cut in Oct.-Nov. the following year.

Poṇḍe aṛk, white, planted and treated like *kaṛjri aṛk*.

Reṭhe̤ aṛk, a stunted kind.

Formerly an implement called *maha sal*, drawn by bullocks, was used for pressing the cane. This is now very rare, and instead the Santals use a *raṛksi*, two heavy rollers, fixed on two solid posts and worked by hand. Two men sit at either end, pulling one end of the turn-pole towards them by the hand, whilst pushing the other end away with the foot. The product is then boiled in a large pan. In this way they make *guṛ*[2], molasses or treacle, the form of raw sugar that is most commonly used.

Aṛlu[3], the potato, is very rarely cultivated by Santals, except where they are in contact with Europeans. Potatoes are bought in the bazar and used for curry.

Aser, a climber; the root is eaten boiled.

At, the edible root of *bir kundri*; v. *kundri*.

Bayaṅ, a creeper, Dioscorea hispida *Denns.* The root is eaten.

Caṃuaṛ, a creeper. The root is eaten. The Santals have possibly obtained this from the Paharias, as the name is borrowed from them (*camua*).

Kolo, a variety of Dioscorea hispida *Denns.* The tuber is bared and a number of incisions made in it. It is then boiled and placed in a water-pool for one night, taken out, again boiled and eaten. The tuber is also used for making beer intoxicating.

Kuclaṛ, the clearing-nut tree, Strychnos potatorum *L.* fil. The pulp is eaten.

Kunaṃ, a plant, the tubers of which are eaten. There are two varieties, *gaṛi kunaṃ*, having small tubers, and *nāṛī kunaṃ*, having large tubers. They have a saying that the tubers of this plant in former times grew to the size of a kettle-drum.

Piskaṛ, a climbing plant, Dioscorea oppositifolia *Linn.* The tuber is boiled and then treated as *kolo*, q.v.

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[1] Bengali—*Ak*—*Ed.* [2] Bengali—*Gur*—*Ed.* [3] Bengali—*Alu*—*Ed.*

Sahṛa, a small tree, Streblus asper *Lour.* The leaves are placed in milk to make it coagulate.

Sāñ (or *saṅ*) is a Santal name for various plants or bushes having edible tubers. They have *bir sāñ*, a wild species, Phaseolus mungo, var. radiatus *L.*; *dare sāñ*, Dioscorea alata *L.* Cultivated; *ḍuṛa sāñ*, Dioscorea pentaphylla *Linn.*; *jọ sāñ*, Dioscorea pubera *Bl.* Cultivated; the fruit and tubers are eaten; *nāṛī sāñ*, the male plant, the same as the female *jọ sāñ*; the tubers are eaten. The Santals are very fond of these tubers when cooked in oil.

Sakarkenda (also called *sẹkẹrkenda*), Ipomœa Batatas *Poir.*, a kind of sweet potato, is commonly cultivated.

Susni, Dioscorea esculenta *Burkill.* Commonly found wild, but it is also planted. The tubers are eaten.

Taher, Cucumis sativus *L.*, is commonly cultivated.

Phuṭ taher, a kind of Melon, Cucumis Melo *L.*, var. momordica. The fruit is much relished. When young, it is a good substitute for the common cucumber; later it will burst, and with sugar added it is excellent.

Tarbuj (or *tạrbuj*), the Melon, Cucumis Melo *Linn.*

Culinary oils and other oils.

We will now deal with the oils and spices, etc., that are used in connection with the preparation of curry. Of oil and similar cooking media they have several kinds.

Gọtọm, ghee or clarified butter. When churning, the unsalted butter (*nạinu*) is collected, put in a vessel over a fire and boiled. In this way they prepare what looks like a kind of oil that remains fluid, so long as the air temperature is high. During the cold season it is liable to coagulate, but this does not affect its quality. It is the same kind that is used all over India. Made from cow's milk it is called *gại gọtọm*, and from buffalo-cow's milk *bitkil gọtọm*. It should, however, be noted that very few Santals are sufficiently well-to-do to use ghee when preparing their curry.

Sunum is the Santal name for oil in general. Among Santals the oldest they have is probably what they call *kũiṇḍi sunum*. This is prepared from the kernels of *kũiṇḍi*, the fruit of the Mahua tree. These kernels (*kũiṇḍi jaṅ*) are split into *ḍạl*, and the split kernels are dried and pounded into a kind of flour (called *kũiṇḍi họlọṅ*). This is first washed and dried and then put into a small basket, that is placed on the mouth of an earthenware pot not quite half full of water, standing on the fire. When the flour has in this way been sufficiently 'steamed' (this is tested by seeing whether oil comes out when it is pressed between the fingers), it is put in a straw cover that is tied up with a string. This cover is then placed in an oil-press, and the oil pressed out.

The Santal oil-press (*sunum lẹnoḳ* (or *lẹlẹn*) *paṭa*) consists of two heavy logs of wood fixed on two solid posts, one near each end of the logs. These logs are planed on the sides that meet, and in the lower log's surface a ring (*candwa*) is cut, sufficiently large to take the oil. This finally runs out over a small spout called *luṭi* (lip). To press the oil out a rope is taken round the logs at one end, a piece of wood is inserted through the upright post at the other end, to keep this end down, and with the help of a solid

belaying-pin the two logs are pressed together. Occasionally one comes across another, probably older, form of oil-press, called *cuṇḍuć paṭa*. This consists of a large piece of stone, the surface of which is made plane and has a circular ring and a channel cut in it. This stone is placed at the foot of a large tree (g., a Mahua), a fairly large hole is cut in the stem of the tree, and into this the end of a long piece of timber is inserted for pressing out oil from a wrapper prepared as described above. The weight of the timber on which people lean or sit provides the necessary pressure.

The oils so obtained are used for many purposes, anointing, lubricating, as medicine, as well as for preparing curry. The various kinds of oil are generally utilized separately and are seldom mixed together. The oil-cake (*kaṛe*) left is used as a hot fomentation, as a fish-poison, and to drive away snakes. In this last case it is burnt on a fire and the smoke drives the snakes away.

Other oils, extracted by the Santals for culinary purposes, are produced from: *Boṅga sarjom*, a large climbing shrub, Ventilago calyculata *Tulasne*. Oil obtained from the fruit is used for culinary purposes.

Dare kudrum, Hibiscus cannabinus *L*. Oil is extracted from the fruit kernel, which is husked, made into flour and eaten in curry.

Kujri, a climbing shrub, Celastrus paniculata *Willd*. Oil is extracted from the seed (in a similar way as from *Kũiṇḍi*) and is used in medicine as well as for frying parched Mahua flowers.

Surguja, Guizotia abyssynica *Cass*. Very commonly cultivated, this yields the Niger seed and oil, which is largely used. Nowadays it is a common practice for the seed to be sold to Hindu oilmen (*tili*), and the oil bought from them. The same is the case with the following, viz.:—

Tilmiṅ, Sesemum indicum *Linn*. Commonly cultivated. They distinguish *heṇḍe*, black, and *poṇḍ*, white *tilmiṅ*, in accordance with the colour of the seed.

Tuṛi, the mustard plant, Brassica campestris *L*. Very commonly cultivated. The Santals distinguished the following varieties: *Badam* (or *baḍom*) *tuṛi* and *luṭni* (*tuṛi*), both having black seeds, *man tuṛi*, *raṛi tuṛi*, giving small yellow seeds, and *ṭhaḍia* (or *ṭhaṛia*) *tuṛi*, having yellow seeds. The Santals cultivate these also for sale to obtain money to pay their agricultural rent. The leaves are used in curry.

The oil that is now probably most commonly used in preparing curry is what they call *utiṅ sunum*, lit. barter oil. It is so named from the way in which this oil was originally obtained from the Telis, i.e. by paying for it in kind (all kinds of oil seed). It is mustard oil mixed with oil of other seeds.

As it is of some ethnological interest, the oils extracted by the Santals for other than culinary purposes may also be mentioned. They are obtained from:—

Aṭkuṭi, a prickly annual, Argemone mexicana *L*. Oil extracted from the seeds is used in lamps.

Bando, a creeper, Spatholobus Roxburghii *Benth*. Oil is obtained from the fruit.

Baṛu, a tree, Schleichera trijuga *Willd*. Oil extracted from the seeds is used against skin diseases.

Bhɛrṇḍa [1], a small tree, Jatropha Curcas *L.* Oil obtained from the seeds is used both in lamps and as a laxative.

Eraḍom, Ricinus communis *L.* Fairly commonly planted. Oil extracted from the fruit is used for lamps as well as a laxative (castor oil).

Koroñj, Pongamia glabra *Vent.*, a large forest tree, is also grown. Oil from the kernels is used against scabies.

Musṇa, Linum usitatissimum *L.* The oil is used in Santal medicine. In some parts of the country they use *ṭisi* or *ṭhisia* a very similar plant. This plant is cultivated but not in any great quantity.

Nim [2], the Neem tree, Azadirachta indica *Jus.* Oil is extracted from fruit kernel and has a very bitter taste.

Soso, the Marking nut tree. Oil, distilled from the drupe, is much used as a vesicant on animals, to paint numbers on houses, and for other purposes.

The ingredients used by the Santals in connexion with preparing the curry are, besides the oils, the following:

Sasañ, turmeric, Curcuma longa *Linn.* This is very commonly cultivated and used when preparing all kinds of curry, except those made from leaves. The Santals have a saying: What pleases the mouth is salt; what pleases the eye is turmeric; what pleases the nose are spices; what pleases the lips is pepper and when you combine all these things, the result is most agreeable. What they say seems to show that they have little understanding of the value of turmeric in their food. Turmeric is also used in Santal medicine, both externally and internally, it is largely used as a temporary yellow dye, and, mixed with oil, as an anointment. When women wear a new piece of cloth, it is almost invariably dyed yellow by the application of turmeric but the first washing removes it.

Peaj [3], onion, Allium ascalonicum *Linn.* Fairly commonly cultivated by the Santals. They recognize the following varieties: *Arak peaj*, the red (common) onion, and *chimbṛi peaj*, the same, but so called when growing in clusters; *sãci peaj*, Allium odorum *L.*, and *kaḍa peaj*, lit. Buffalo onion, Allium Cepa *Linn.*, a very large onion. It is curious that the beautiful Pancratium verecundum *Ait.* is also called *kaḍa peaj* by the Santals. *Poṇḍ peaj*, white onion, is only another name for garlic.

Rasun [4], Garlic, Allium sativum *Linn.*, is not commonly cultivated.

Maric [5], pepper. The Santals have a number of varieties: *Caole maric*, lit. rice-pepper, Capsicum minimum *Roxb.*; *dare maric*, lit. tree pepper, Capsicum annuum *L.* (also called *ḍiṇḍi maric*, *ḍiṇḍi* being their name for the boll of cotton); *dimbo maric*, Capsicum grossum *Willd.*, or Capsicum cerasiforme *Lamk.*; *sakwa maric*, lit. horn pepper, Capsicum frutescens *Linn.*, so named from its long pods; *siñghin maric*, lit. spiny pepper, botanically the same as the *sakwa maric*, but so named from the pods

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[1] Bengali *Bherenda*—*Ed.*

[2] Bengali *Nim*—*Ed.*

[3] Bengali *Peàj*—*Ed.*

[4] Bengali *Rasun*—*Ed.*

[5] Bengali *Marich*—*Ed.*

growing upwards; another name for the same is *sim saba maṛic*, lit. fowl spur pepper, also *suruj mukhi maṛic*, the sun-flower pepper. All the above varieties are cultivated by the Santals and used in preparing curry. Often these are also eaten like chillies. Besides the varieties mentioned they have *gol maric* [1], lit. round pepper, Cayenne pepper, that is used in their curry, but not cultivated by the Santals. They have two other names for the same, *saṇthi maṛic* and *saṇci maṛic*.

Buluṅ, salt. They have: *Biṭ buluṅ*, a factitious salt containing sulphur; *hēndē buluṅ*, black salt; *paṅga buluṅ*, a white salt. Many Santals know how to make *hēndē buluṅ* into white salt. It might be mentioned that they call an arsenical stuff used for preserving hides *harta buluṅ*, lit. hide-salt; this is naturally not used by the Santals, except when supplied to them by those who buy the hides. In former times the Santals are said to have produced a kind of salt. A Santal has given me this description of the process: In rice-fields or in low-lying spots in forests saline clayish soil that had cropped up, whitish in colour, looking like the leavings of earth-worms was occasionally discovered. This was collected by means of a broom or with their hands. Any stones or grass were removed. Pouring water in an earthenware pot in which the soil was kept they boiled it and then took it off the fire and allowed it to cool. This was to remove all dirt and extraneous matter. This water was then poured into a cooking vessel, and the whole was boiled, until nearly all the water had evaporated. The vessel was then removed from the fire, and the salt deposit obtained. Salt produced in this way was not like the salt bought nowadays. It was not tasty but had a disagreeable flavour.

In preparing *utu*, curry, they use a number of spices, *moṣoḷa* [2], of which some are called *goṛom moṣoḷa* [3], i.e., hot, pungent spices. The following are in constant use: *Adhẹ* [4], Ginger, Zingiber officinale *Roscoe*, cultivated by the Santals; *dar cini* [5], cinnamon, the bark of Cinamomum Tamala *Nees & Eberne.* (or of other cinnamon trees) bought in the shops; *dhaṇiạ* [6], Coriander seed, Coriandrum sativum *Linn.* (name adopted from Hindi); *elaci*, Cardamoms, Alpinia Cardamomum *Roxb.* (name through Bengali from Persian); *jiraṇ* [7], Cummin, Cuminum Cyminum *Linn.* (name from Hindi); *kaḷiạ jiraṇ* [8], Nigella sativa *L.* (the name is from Hindi); *loṅphul*, Cloves, Eugenia caryophyllaea *Willd.* (name adopted from Bengali). With the exception of *Adhẹ*, Ginger, Zingiber officinale *Roscoe*, the plants of these spices are unknown to the Santals and are not grown by them and they buy the spices from the shops.

Leaves and plants.

Let us now turn to what the Santals call *aṛaḳ*, i.e., leaves, pot-herbs, of plants and bushes and even trees, that are eaten, mostly as curry. Some of these are

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[1] In Bengali *Gōl Marich* means also Cayenne pepper—*Ed.*

[2] Bengali *Masalā* means spices—*Ed.*

[3] *Garam Masalā* in Bengali means cardamom, cinnamon and cloves and together as spices in meat and other curries—*Ed.*

[4] Bengali *Ādā*—*Ed.*

[5] Bengali *Dārchini*—*Ed.*

[6] Bengali *Dhane*—*Ed.*

[7] Bengali *Jeerā*—*Ed.*

[8] Bengali *Kāla Jeerā*—*Ed.*

cultivated, but most of them are found growing wild. We shall take them in alphabetical order.

Apaṅgir aṛak, lit. eloping vegetable; leaves of a pot-herb found in Assam and on the hills. Not commonly known.

Ālu aṛak, leaves of the potato plant, used as curry but rare.

Āṭkuṛa aṛak, the tender leaves of a small forest tree, Wrightia tomentosa *Roem.* et *Schultes*, used in curry. The bark of the stem and the root are used in Santal medicine.

Bambaṛo aṛak (also called *ambaṛo*), the Roselle plant, Hibiscus Sabdariffa *L.* The Santals recognize two varieties, *poṇḍ*, white, and *araḳ*, red, in accordance with the colour of the stalk and flowers. They are not botanically different. These are commonly cultivated. The flesh of the fruit is used as a curry; the kernel is roasted and ground and used with *matkom laṭhẹ*, a dough made of the mahua flowers, especially taken along as a food when they go hunting. *Laṭhẹ* is prepared as follows: The dried mahua is soaked in water and then roasted on a large potsherd. When this is ready it is mixed with one of the following substances: roasted maize, *surguja* (the Niger seed), *tilmiñ* (the Sesame seed), the seed of hemp or of *bambaṛo*, and finally pounded in the *ḍhiñki* [1]. When ready it is made into balls and put into leaf-cups. For the annual hunt they take a number of these balls along with them in a large leaf-cup. (It might be mentioned that memsahibs use part of the calyx for making jellies and juice and find it very good for the purpose.) The *bambaṛo* ripens in December.

Banda rukhi aṛak, not known to the writer. *Banda* is the name of parasitical plants, belonging to Loranthaceæ; *rukhi* means a bit.

Baṛe loa, v. *baṛe*.

Baḥu ṭuṭuri aṛak, the leaves of a small plant, Veronica cinerea *Less*, used in curry. The meaning of the name is the head-covering of a bride.

Baṛu aṛak, the leaves of Schleichera trijuga *Willd.*, a large forest tree, the tender leaves of which are used in curry. An oil is extracted from the seeds and used in Santal medicine, as also are the bark and root.

Boebindi aṛak, Randia dumetorum *Lam.*, a thorny tree. The leaves are used in curry, the fruit is eaten and the bark and roots used in Santal medicine.

Buc aṛak, the tender leaves of Cordia Myxa *L.*, used in curry. The fruit of the tree is also eaten.

Buṭ aṛak, the leaves of gram, Cicer arietinum *L.* (also called *bhuṭ*), used as curry.

Bhaḅri, a shrub or small tree, Embelia robusta *Roxb.* The young shoots are eaten raw.

Bhaṭua aṛak, the leaves of Chenopodium album *Linn.*, a wild plant, used in curry.

Bheḍwa, a plant, Hibiscus cancellatus *Roxb.*, var. fusiformis *Willd.* The tubers are eaten raw, after having been scraped.

[1] Bengali *Dhenki*—*Ed.*

Bhorkoṇḍ aṛak, the leaves of Hymenodictyon excelsum *Wall.*, a forest tree, used in curry. The bark is used medicinally; the wood is used by the Santals for making fiddles, yokes, etc.

Cakaoḍa (or *cakaoṇḍa*) *aṛak*, the young leaves of Cassia Tora *L.*, a small plant, are used in curry, but are not considered first class.

Caṭom aṛak, lit. umbrella vegetable; several plants are so called, and these are used in Santal medicine. One variety is *dak caṭom aṛak*, Marsilea quadrifolia *L.* It grows near water and its leaves are used in curry.

Coṭo lutur aṛak, lit. field-mouse-ear vegetable, Ipomæa Pes-tigrides *L.*, a creeper. The fruit is also eaten (i.e., the kernel).

Coṛo moḳoć aṛak, the leaves of the *bambaṛo*, Hibiscus Sabdariffa *L.*, used in curry.

Cuṇḍuć aṛak, a small plant, Commelina communis *L.*, used in curry.

Dare japak aṛak, a climber, Scindapsus officinalis *Schott.* The leaves may be used in curry. It is also used in Santal medicine.

Dhurup aṛak, there are two species, one called *aṇḍia dhurup aṛak*, a plant, Leucas cephalotes *Spreng.*, the leaves of which are used in curry, but not often, as they are bitter. It is also used in Santal medicine. The other is called *eñga dhurup aṛak*, a plant, Leucas Clarkei *Hook. f.*; used in curry and considered very savoury, it is also fried wrapped in leaves.

Daṅgra kaṭa aṛak, a wild plant. The leaves used in curry.

Ḍimbu aṛak, a creeper, the leaves of which are used in curry (? Ocimum Basilicum *Linn.*). Two varieties are recognized, one called *baṛge ḍimbu aṛak*, found in the *baṛge*, and one called *hoṛ* (or *joṃ*) *ḍimbu aṛak*.

Ḍuṇḍukiṭ aṛak, a forest tree, Gardenia turgida *Roxb.* The leaves are used in curry and the bark in Santal medicine.

Gargaḍi, a grass, Job's tears, Coix Lacryma-Jobi *L.* Eaten in times of scarcity.

Gaṇdhaṛi aṛak, Amaranthus gangeticus *Linn.*; commonly cultivated, and used in curry. They recognize these varieties: *Araḳ* (red) *gaṇdhaṛi*, *dare* (tree, i.e., high) *gaṇdhaṛi* and *eḍhe* (low, with branches down to the ground) *gaṇdhaṛi*.

Gaṛuṇḍi aṛak, a plant found growing in rice-fields and moist ground. The leaves are used in curry, as a rule together with *daḷ*, split peas. Too much of it is said to cause diarrhoea. The botanical name is Aeternanthera sessilis *R.Br.*

Sāṛī haṭaṅ, lit. monkey-brain, Ampelocissus tomentosa *Planch.* The shoots are eaten to quench thirst during the hot season. Also called *buru ghoṛa lada* (or *laḍaṇri*).

Gitil aṛak, lit. sand vegetable, Leucas mollissima *Wall.* The leaves are eaten boiled, in times of scarcity.

Hasa aṛak, a plant, a Ruellia. Used in curry.

Haṗuḳ aṛak, a small plant. The leaves are eaten as curry.

Hemea aṛak, the *dak* h.a. variety, a plant, Enhydra fluctuans *Lour.* The shoots are roasted in leaves and eaten.

Hendasaṛi aṛak, the same as *boebindi*, q.v.

Hesaḳ aṛak, the tender leaves of Ficus religiosa *L.* Used in curry with *daḷ*, split peas, it is also roasted and cooked together with rice.

Huṛ huṛa aṛak, a plant (also called *seta kaṭa*). The Santals recognize two varieties: *aṇḍia huṛ huṛa*, that has red flowers and is not eaten, and *eñga huṛ huṛa*, Cleome viscosa *L.*, that has white flowers, the leaves of which are eaten in curry.

Icak aṛak, a wild pot-herb, Pouzalzia pentandra *Benn.*

Jaṇum aṛak, a thorny plant, Amaranthus spinosus *Linn.* The leaves are used in curry and considered excellent. The fruit of the *jaṇum* tree (Zizyphus Jujuba *Lam.*) will be mentioned later.

Jormoṭ aṛak, lit. violence vegetable, Verbescum Thaspus *L.*; the leaves are eaten in curry, when there is a scarcity of food.

Jhiñga aṛak, the leaves of *jhiñga*, q.v., used in curry.

Jhiñgur, a plant, Amorphophalus lyratus *Kunth.* This is eaten, but it must be well boiled and cleaned, otherwise it is considered poisonous.

Jhun jhuniа aṛak, the leaves of Crotalaria calycina *Shrank.*, so named from the rattling sound of its pods. This plant is also called *bir jhunka*.

Kacan aṛak, the leaves of *karla*, q.v., used as curry.

Kana aṛak, Commelina benghalensis *Linn.* Used in curry with *daḷ*, split peas; but as this is often difficult, it is sometimes eaten roasted or cooked into a hash with rice.

Kantha aṛak, a common wild plant, Euphorbia granulata *Forsk.* The leaves and the whole plant are crushed in a mortar, before being prepared for curry. This is greatly relished.

Kedok aṛak, lit. supper vegetable, a creeper, Argyreia speciosa *Sweet.* This is sweet and is used as curry.

Kohṇda aṛak, v. *kohṇda*. Generally eaten as curry with *daḷ*, or with fish, it is also roasted.

Kubi aṛak, Cabbage. Any form of this eaten, when they can get it.

Kundri aṛak, v. *kundri*.

Kuṛbi (or *kuṛmbi*) *aṛak*, a plant, used as curry.

Loa aṛak, lit. fig vegetable; the unripe fruits of the tree, Ficus glomerata *Roxb.*, are gathered and steamed, and when dried pounded in a mortar. A small vessel is heated and some oil poured in; when this is boiling the figs are thrown in, and salt and spices added. When ready this is eaten as curry.

Lopoñ aṛak, a plant, Ærua lanata *Juss.* This is baked with flour and eaten, specially valuable as a medicine.

Makaṛkenda aṛak, the tender leaves of a forest tree, Diospyros Embryopteris *Persoon*, are used as curry. The fruit is also eaten.

Malhan aṛak, v. *malhan*.

Matkom aṛak, a plant, Hygrophila angustifolia (R.Br.) *Nees.* Used as curry.

Maṭha aṛak, the leaves of a small deciduous tree, Antidesma diandrum *Roth.*, used as curry with *daḷ*, it is also roasted or cooked into a hash with rice.

Merom cuñci, a plant; the tubers are eaten raw.

Moron aṛak, lit. death vegetable. The Santals recognize two varieties: *aṇḍia moron aṛak*, Gymnema hirsutum *W. & A.*, var. Decaisneanum *Wight.* of which the leaves

and fruits are eaten raw, and the *eŋga moroṇ aṛak*, of which the leaves and flowers are eaten, also without boiling.

Muċ aṛak, lit. ant vegetable, a plant, Polygonum plebejum *Br.* The whole plant (except the roots) is eaten as curry. Too much of this is said to cause diarrhoea.

Mulạ[1] *aṛak*, the leaves of the radish, used as curry. The Santals distinguish the cultivated radish (called *ato mulạ*, Raphanus sativus *L.*) from the wild variety called *bir* (or *dud*, or *ṭaṇḍi*) *mulạ*. These are also eaten raw.

Munga aṛak, the leaves of the Horse-radish tree, Moringa pterygosperma *Gaertn.*, =Moringa olcifera *Lam.*, eaten in curry, with *dạl*, they are also roasted or cooked into a hash with rice. The *munga* tree is one of the few trees that are commonly planted. Besides the leaves the flowers and fruits also are eaten. It has many other uses. The bark, crushed and moistened, is used as a remedy against headache. When the bark is crushed, mixed with water and poured into a snake's hole it is said that it will drive out the snake. The root is crushed, mixed with *jĩoṭi* grass and then thrown into water to poison the fish.

Olañ mocañ aṛak, lit. voracious vegetable; the leaves are used as curry.

Onoḷ aṛak, lit. wattle-wall vegetable, a small plant, eaten raw or as curry.

Oṛsa (or *o̱ṛsa*) *aṛak*, a plant having white flowers. The leaves eaten as curry.

O̱hoċ aṛak, lit. potsherd vegetable. The leaves of this small creeper, Boerhaavia diffusa *L.*, are eaten as curry. The root is used medicinally.

Palañ (also called *palo̱ñ*) *aṛak*, Beta benghalensis *Roxb.* (or, Beta vulgaris *Linn.*). It is cultivated, but only rarely by Santals.

Paṭ aṛak, plant, Corchorus olitorius *Linn.* and Corchorus capsularis *Linn.* Cultivated. The leaves and shoots are used in curry.

Piṭuạ aṛak, a plant, Spermacoce hispida *K. Schum.* This is eaten as curry in times of scarcity. The plant is also called *piṭuạ ghās* and *ṭaṇḍi piṭuạ*.

Puraị aṛak, a twining plant, Basella rubra *Linn.* The whole plant is used as curry. They distinguish two varieties: *Moṭa puraị*, having large leaves, and *nanha* (or *kạṭiċ*) *puraị*, having small leaves.

Ro̱ṭę capal aṛak, an aquatic plant, Ottelia alismoides *Pers.*

Ro̱ṭę capaṭ, another aquatic plant, also called *cala bulạ*.

Saru aṛak, the leaves of *saru*, q.v., used as curry.

Saụri aṛak, a plant, Polygonum glabrum *Willd.* Eaten in curry.

Seta kaṭa aṛak, lit. dog-leg vegetable, a plant, Gynandropsis pentaphylla *DC.* The leaf-buds are eaten boiled or in curry.

Siñ aṛak, lit. day (or sun) vegetable, a tree, Bauhinia variegata *L.* (possibly also B. purpurea *L.* is so named). The young shoots are eaten as curry, but are said to cause loose stools. Also they are eaten as curry with *dạl*, or roasted or cooked as a hash with rice.

Sirgeṭi (or *sirgiṭ*) *aṛak*, a plant, Celosia argentea *Linn.* The leaves are eaten as curry.

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[1] Bengali *Mulā*—*Ed.*

Tabẹn aṛak, a plant found especially in rice-fields. This is eaten as curry, mostly with *daḷ*, split peas.

Tagoḷ aṛak, a plant, Gnaphalium indicum *L.* Eaten as curry.

Toa aṛak, a plant, eaten as curry. So named from the juice which exudes when the plant is broken, and which looks like milk.

Tuṛi aṛak, the leaves of the *tuṛi*, Brassica campestris *L.*, eaten as curry.

Ṭhuiaḳ aṛak, a plant, Melochia corchorifolia *Linn.* The leaves and buds are eaten as curry.

Ulič alaṅ aṛak, a small plant, Portulaca oleracea *L.* Eaten as curry and much relished.

To gather wild vegetables and leaves is the work of women. When going to the forest, they will not go alone, for several reasons, but always in a body at the time agreed upon. When entering the forest, also when they start plucking, a kind of invocation is made:—'Be quiet in the row, be quiet in the rows; I have put my babe in the niche and left it there; may the eyes of those who have seen me leaving burst, be squeezed out; may I quickly find; my child will cry; may I quickly return; may my basket be filled, be filled to overflowing'.

On returning from the forest they arrange at once for the food to be cooked. They give the leaves and vegetables, the mushrooms, and whatever else they may have found, over to the cooking woman, after having cleaned them. The cook takes a little in her hand, and waving it over the fireplace and the cooking vessel she says: 'May a spell be thrown on it; may it get warm!' Thereupon she throws what she has in her hand into the fireplace through the front opening.

In connexion with the use of vegetables by the Santals the following is of interest. They warn people not to eat any amount of vegetables, as too much will be bad for the stomach by causing loose bowels. Vegetables, they say, are not for those who eat for satisfaction, but are the poor man's food. Well-to-do Santals, however, will also eat vegetables to avoid being called haughty (according to Santal ideas).

Besides the ordinary curry (*utu*) they have two other ways of cooking their food. One is called *kohṛa*, a kind of frying or roasting. The food is placed in a pot, with salt and spices added, if they have any. The pot is then put on the fire and whilst the contents are being cooked they are stirred with a ladle. When ready it may be eaten alone or together with *daḷ*, split peas, i.e., with curry of split peas (or any pulse so prepared).

Another way is what is called *suṛe*, i.e., as a hash of the foodstuffs cooked together with rice.

A Santal once expressed himself thus:—'Vegetables are mostly eaten *kohṛate*, i.e., prepared by frying or roasting. During the "poor", "hunger"-times (i.e., when there is a scarcity of food) we eat one cup (*bokaḳ*, the shell of a gourd, *hoṭoḷ*, cut in two and used as a cup) of rice-gruel and one leaf-plate of vegetables; in this way we manage to live. During "hunger" time we are not able to procure salt, or only a very little. Parents will often say to the children: "Listen, little ones, don't plunge salt in the

rice-gruel; it will not be properly seasoned, if you do. Just put in a pinch". In this way they economize.'

Mushrooms.

Especially during the rainy season mushrooms are much in evidence. The Santals have an idea that thunder causes the fungi to sprout cf. M. A. Henry, 'Scientific American', vol. 124, No. 16, April 16, 1921, p. 318, where he has shown that continual discharges of artificial 'lightning' produced by a large static machine caused a very marked effect on speed of growth and size of the cultivated mushrooms. This experiment thus confirms the Santals' popular belief. The edible mushrooms are much used in curry, and some of them are very much relished. The Santals somehow have no difficulty in distinguishing the edible from the poisonous varieties. The writer has never heard of a Santal having eaten poisonous mushrooms. This may be accidental; but on the other hand he has heard of cattle having died from eating such.

Here follows a list of the varieties of mushrooms eaten by the Santals. The probable botanical names are given side by side.

Biṅ oṭ, snake mushroom (so named from shape) (*Lepiota mastoides* probably).

Bunum oṭ, lit. white-anthill mushroom (*Entoloma macro-carpum*); so called because it is found on white-anthills. Considered delicious.

Busuṗ oṭ, lit. straw mushroom (*Volvaria terastrius*); found growing on old, often decayed, straw. Considered good.

Daḵ maṇḍi oṭ, lit. rice-gruel mushroom. Considered savoury (*Entoloma micro-carpum*).

Gopha oṭ, a very large kind of edible mushroom (*Collybia albuminosa*).

Guṇḍri gopha oṭ, a mushroom, said to be intoxicating, but sometimes eaten (a var. of *Collybia albuminosa*).

Hasa oṭ, lit. earth mushroom. Eaten boiled. Found in Asāṛ. and Bhador (*Agaricus campestris*).

Haṭi oṭ, lit. elephant mushroom (*Boletus sp.*), large, bad smelling. Rare, said to be eaten only by old people.

Huruṭ oṭ, lit. tree-stump mushroom. Eaten boiled. There are two species: *Sisir huruṭ oṭ*, lit. dew tree-stump mushroom, also called simply *sisir oṭ*, found after the rains have ceased; and *poṇḍ oṭ*, lit. white mushroom (*Lentinus subnudus*), found during the rains. Both are eaten boiled.

Kaṭ oṭ, lit. wood mushroom, found growing on tree-stumps (*Pleurotus ostreatus*).

Kaṛṇa oṭ, lit. bitter mushroom (*Puff-ball*); name due to the taste. Eaten raw or as curry. Found in Bhador.

Kaṛṇa paṭka oṭ, v. *paṭka oṭ*. (Var. of *puff-ball*).

Kod oṭ, so called on account of its black colour, resembling the fruit of the *kod*, Eugenia Jambolana *Lam.* (*Coprinus comatus*).

Mat' ot', lit. bamboo mushroom (*Collybia sp.*), because it is found growing on stumps of the hill bamboo. Considered very savoury.

Motam ot'. Besides being eaten as an ordinary food, it is given to persons suffering from smallpox, because it is believed to bring out the eruption. (Var. of *Collybia albuminosa*).

Muci ot', lit. the Muchi's mushroom (a var. of *Entoloma micro-carpum*).

Murum ot'; this is taboo to Santals of the Murmu sept. Possibly so named owing to its colour, as *murum* means reddish. The Santals connect the name with the name of the sept. (*Clavaria sp.*).

Or tot' ot', lit. pulled out mushroom, so called, because the whole of the mushroom (rooting *Collybia albuminosa*) is pulled out of the ground. Found in abundance in July and August. It is eaten raw or boiled in oil as curry. The Santals consider this one of the finest varieties.

Oṛeḍ ot', lit. burst open mushroom (var. of *Collybia albuminosa*). It is white in colour, and commonly found in August. It is eaten as curry, but sometimes also raw, though it is then somewhat pungent in taste.

Paṭka ot', (*Puff-ball*) growing together with *kaṛṇa ot'*, possibly the same, but of a different colour.

Piska ot', not poisonous, but it has a bitter taste, and is therefore not commonly eaten.

Boṇḍ kaṭ ot', lit. white wood mushroom, a variety of *kaṭ ot'* (*Pleurotus sp.*).

Poṇḍ tormaṛ ot', a whitish variety of the *tormaṛ ot'*, q.v. (a var. of the *Geaster*).

Puṭka, the puff-ball, a fungus of the *Lycoperdaceæ*. The Santals recognize the following edible varieties: *Erok puṭka*, lit. sow puff-ball, so called because it appears at sowing time, earlier than the other *puṭka* it is also called *hoṛ puṭka*, *Lycoperdon giganteum*, *Calvatia sp.*, *Geaster sp.*, lit. man puff-ball, and *ruhni puṭka*, because it may be gathered during *ruhni*; *roṛe puṭka*, lit. frog puff-ball, a small kind; *seta puṭka*, lit. dog puff-ball (*Truffle*) which has a rough surface. The Santals very much relish eating these naturally in their early stage of growth. It is curious that the Santals regard the puff-balls as animate, as shown by their language.

Roṛe ot', lit. frog mushroom. (Small puff-ball).

Sagak ot', lit. awn mushroom (mentioned by Dr. Campbell).

Seta ot', lit. dog mushroom; the same as *seta puṭka*, q.v., the commonly used name. (*Truffle*).

Sim ot', lit. fowl mushroom, reddish in colour. (*Cantharellus aurantiacus*).

Sisir ot', lit. dew mushroom, found growing on stumps of the *Sal* tree (*Lentinus subnudus*).

Tormaṛ ot'. Eaten, but not very common. (*Geaster sp.*).

Tumba ot', lit. gourd-shell mushroom, of a large round shape. (*Bovista gigentia*).

As regards mushrooms a Santal writes: 'Mushrooms sprout from decayed leaves or straw, and from white-anthills and cow-dung. We boil them in oil adding spices, add a little *rase*, sauce, soup, and eat them. Sometimes we also make a hash of them, cooking them with rice. A few kinds we also eat raw.'

Resins.

We will now consider the kinds of food obtained by the Santals from trees, fruits, resins, etc., which are used either in the form of curry or in the raw natural state.

Amongst the resins, i.e., exudations from trees, called by the Santals, *jęr*, the following may be noted:—

Atnaḳ jęr, the exudation of Terminalia tomentosa *W. & A.*=T. alata *Heyne* ex *Roth*.

Ḍoka jęr, the exudation of Odina Wodier *Roxb.*

Heṣęl jęr, the exudation of Anogeissus latifolia *Wall.*

Hoṗo jęr, the exudation of Cochlospermum Gossypium (L) *DC.*

Loṗoñ jęr, the exudation of Terminalia bellerica *Roxb.* The gum is eaten together with the edible part of the marking nut (*sǫsǫ*, Semecarpus Anacardium *L.f.*) and is said to be very sweet.

Taroṗ jęr, the exudation of Buchanania latifolia *Roxb.*=B. Lanzan *Spreng.*

Terel jęr, the exudation of Diospyros tomentosa *Roxb.*

All these are eaten raw. A Santal once said: 'We eat resin whenever we find it. Those who love children will take some home to give to them'.

Fruits.

The names of the trees or climbers whose fruits are eaten, are given in alphabetical order.

Ambṛa [1], the Hog-plum, Spondias mangifera *Willd.* The fruit is eaten raw or cooked when used with curry it gives this an acid flavour. The panicles and the tender leaves are also eaten raw or with curry. This refers to the planted tree (called *ato ambṛa*, village Hog-plum; and not to the wild, *bir ambṛa*, that is not used for food, being far too bitter).

Amrit [2], the Papaw tree, Carica Papaya *L.* (Also called *ąmbrit.*) The fruit is excellent.

Ąmrud (or *ąmrut*; or *amsophori*, the most common Santal name), the Guava tree, Psidium Guajava *Linn.* Very common.

Baḳṛe, the flesh of the *kũiṇḍi*, rind included; v. *matkǫm.* Said to have a good taste when roasted.

Baṛe, the Banyan tree, Ficus bengalensis *L.*

Baḍ jąnum, v. *jąnum.*

Baị bindi, v. *boi bindi.*

Baṛsą paḳǫṛ, a small bush, Grewia sapida *Roxb.* (also Grewia Campbellii *Watt.*).

Baṛu, Schleichera trijuga *Willd.* Oil is obtained from the seed.

Boi bindi, Randia dumetorum *Lam.* The ripe fruit is eaten; and the leaves are used in curry.

Bhąḍu, Vitex altissima *L.f.* The Santals distinguish between *buru bhąḍu*, hill *bhąḍu*, and *gaḍa bhąḍu*, river *bhąḍu*. The fruit of both is eaten.

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[1] Bengali *āmṛā*—*Ed.*

[2] *Amrita* in Sanskrit means nectar—*Ed.*

Dan banda, several parasitic shrubs, belonging to Loranthacea.

Dabha, the Shaddock tree or Pomelo, Citrus decumana *Linn.* Rare amongst the Santals. The fruit is excellent.

Ḍahu, Artocarpus Lakoocha *Roxb.*, generally found wild, but it is also planted. The fruit is eaten and the flowers sucked by children.

Ḍiḍhauṛi, the planted *jaṇum*, q.v. The fruit is much relished.

Ḍuṇḍukiṭ, Gardenia turgida *Roxb.* The fruit and the bark are used medicinally.

Ḍhela, Alangium salviifolium (L.f.) *Wenger*. The fruit is eaten. The bark is used in medicine.

Ẹdẹl, the Cotton tree, Bombax malabaricum *DC.* The calix is eaten together with steamed Mahua. The tender fruit is eaten as curry. The roots are crushed and given as a drink with the scum of boiled sugarcane or sugar. This is especially eaten in times of scarcity.

Gaḍa terel, Diospyros montana *Roxb.* Fruit eaten.

Guạ, the Betel Palm, Areca Catechu *L.* Nut used by a few, imitating the Dekos.

Ghoṛa lada (or *laḍaṇṛi*), climbers, *buru* l.gh. Ampelocissus tomentosa *Planch.* The fruits are eaten to quench thirst in the hot season.

Hesaḵ, the Pipal, Ficus religiosa *L.* The tender leaves are used as curry. The fruit may be eaten. They say about eloping people, that they have gone to eat Pipal fruit. Another expression is: *hesaḵ sakam lekan họṛ*, a person like a Pipal leaf, i.e., one who is a coward, or who always changes his mind. The leaves are large with a long slender petiole and are turned by the slightest breeze.

Icạḵ, a shrub, Woodfordia fruticosa (L) *Kurz.* The flowers are sucked, as they contain much honey.

Jạmbir, the Citron tree, Citrus acida *Roxb.* The fruit is eaten. Cultivated. They also have the wild Citrus medica *L.*

Jạnum, lit. thorn, Zizyphus Jujuba *Lam.*, both wild and cultivated. The fruit is much relished. They distinguish several varieties of the wild bush: *Jọm jạnum*, lit. eaten thorn, which is called *baḍ jạnum*, when ripening in Aghaṛ, and *baịhaṛ jạnum*, when ripening in Pus and Magh. One variety is called *ẹḍhẹ jạnum*, a small bushform with low-spreading branches. This is also called *toyo jạnum*, lit. jackal thorn, because jackals eat the fruit. *Ḍiḍhauṛi jạnum* is the same when cultivated and has larger fruits. The ripe fruit may be dried and pounded, and used in curry or in drinks.

Jọjọ, the Tamarind, Tamarindus indica *L.*, very common in Santal villages. The ripe fruit is eaten. Taken with warm water it acts as a laxative. The inspissated juice of the fruit is used in curry. The leaves are dried, pounded and eaten in gruel or with curry.

Jhiṅjiṭ, a tree, Bauhinia retusa *Roxb.* The fresh leaves are chewed to quench thirst.

Kadam, Anthocephalus Cadamba *Miq.*=A. indicus *Rich.* The fruit of this large tree is eaten raw, as well as in curry.

Kaera, the Plantain, has already been mentioned.

Kaṇṭhaṛ[1], the Jack tree, Artocarpus integrifolia *L*. Very commonly cultivated. The fruit is commonly eaten, but is forbidden to people suffering from certain diseases. The wood does not crack, and is therefore used for making drums and other articles.

Kãṛwaṭ, a large shrub, Carissa Carandas *L*. The fruit is eaten.

Kạri, a large climbing shrub, Erycibe paniculata *Roxb*. The fruit is eaten. It is also called, *kạri dare*, *kạri jhạuạ*, *kạri jhõṇḍ* and *kạri nãṛī*, according to the shape.

Kiṭạ, Phoenix acaulis *Ham*. The fruit is eaten.

Kod, the Jam, Eugenia cumini *Druce*. The fruit is eaten. They recognize the following varieties of the wild tree: *Cuḍuk kod*, having small round fruits; *gaḍa kod* lit. river Jam, growing near rivers; and *seta kod*, lit. dog Jam, having (according to Dr. Campbell) small astringent fruits. The cultivated *kod* is called *sǫ*, q.v.

Korkoṭ, a tree, Dillenia indica *L*. The flesh and the leaves of the calyx surrounding the ripe fruit are eaten raw or cooked together with mahua flowers.

Kũiṇḍi, the fruit of *matkǫm*, q.v.

Kurse, a creeper, Mucuna pruriens *DC*. The fruit is eaten together with mahua flowers.

Kuṛit rama, lit. kite talons (so named from the hooked talon-like form of the thorns), Zizyphus Oenoplia *Mill*. The fruit is eaten.

Khijur[2], the wild Date tree, Phoenix sylvestris *Roxb*. The fruit is eaten. A juice is extracted from near the top of the tree and this is fermented into a kind of toddy and drunk. It is also used for yeast.

Khiṛuạ[3], water melon, Citrullus vulgaris *Schrad*.

Lamaḳ jaṅ, the kernels of the pods of *jǫm laṛ*, Bauhinia Vahlii *W. & A*., gigantic climber. The kernels are eaten roasted. This climber is much used. Its fibre is used for bowstrings, halters, slings, etc. and from the leaves they make waterproofs, (used, when pulling out paddy seedlings), also leaf-plates and leaf-cups.

Lẹmbǫ, the Lime tree and its fruit, Cirtus medica *L*. (also called *nẹmbǫ* and *nimbu*).

Loa, the Fig tree and its fruit, Ficus glomerata *Roxb*. The ripe fruit is naturally a common form of food. As regards the curry made from the unripe fruit, v. *loa aṛaḳ*.

Makaṛkenda, a forest tree, Diospyros Embryopteris *Persoon*. The fruit is eaten raw, the tender leaves are used for curry, and the juice of the ripe fruit is used as a gum.

Mandargǫm, the Custard apple, Anona squamosa *L*. and Anona reticulata *L*. The fruit is eaten raw when ripe. Before ripening the fruit is boiled and eaten.

Matkǫm, a large tree, Bassia latifolia *Roxb*. and Diploknema butyracea (Roxb.) *Lamk*. (The latter is very rare, but otherwise is treated like the commoner one.) The *matkǫm* or Mahua is found widely spread throughout the country, and each tree is allotted to one of the tenants of the village. It is a tree of the greatest importance to the people. The corolla of its flowers falls at the commencement of the hot season,

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[1] Bengali *Kãnthãl*—*Ed*.

[2] Bengali *Khejur*—*Ed*.

[3] From *Khīrā* in Hindi meaning cucumber—*Ed*.

before the fresh leaves come out. The ground at the foot of the tree may be quite covered by these corollas that are picked up and dried. When dry they are beaten with a stick to remove the *matkom sohoe*, the stamens of the flower. The dried corollas are used for food boiled, roasted or parched, alone or together with other foodstuffs (especially pulses). At the commencement of the rainy season this is for many their only daily food. Of the dried corollas they prepare what is called *laṭhę*, a kind of dough. They soak the dried Mahua in water and then roast it on a potsherd. When properly roasted, they mix it with roasted maize, *surguja* (Niger seed), sesame seed (*tilmiń*), the seed of the Roselle plant (*bambaṛo*) or hemp (naturally only one of these) and pound it in the *ḍhiṅki*. It is then made into balls and taken along as food when away from home, e.g., on the annual hunt. The Mahua is very sweet and is also used in the distillation of country liquor, both by the authorities and those who distil illicitly. The fruit is called *kũiṇḍi*, that has already been mentioned.

Maṛ, bamboo. There are several varieties. The common wild bamboo is Dendrocalamus strictus *Nees*. The seed of the bamboo, resembling wheat, is cooked and eaten. The young shoots are also used for food. The Santals take a foot or two of this (called *helta*) and slice it, grind it in a mortar, and put it in an earthenware pot, that is covered, and allowed to stand for two or three days. It is then taken out and spread on a mat or a flat stone and dried in the sun. This is called *haṇḍuą*, and may be kept for months in pots. It may be eaten raw with salt or be made into curry; in the latter case it is generally cooked with spices in *aṛiċ daḳ maṇḍi*. It is now a very rare article of food, as Government have forbidden them to gather *helta* in the forests. It might further be mentioned, that the bamboo flowers after very long intervals, one whole cluster at the same time, the whole cluster thereupon dying. None of the other varieties have been mentioned here, as they are practically all cultivated and used, not for food, but for a number of other purposes.

Maṭha suṛą, a small tree, Antidesma Ghesaembilla *Gaertn*. The fruit is eaten, also the fresh leaf-buds. It is also called *maṭha suṛą*.

Męrlęċ, a tree, Flacourtia indica (Burmf.) *Merrill*. The fruit is eaten and the bark used in Santal medicine.

Munga, the Horse-radish tree, Moringa olcifera *Lamk*., v. *munga aṛaḳ*, where the tree has been described.

Murup' (also *Muruṭ*), a tree, Butea frondosa *Roxb*. The flowers are sucked as they contain honey.

Nąrkoṛ, Cocos nucifera *L*. Sometimes found cultivated but does not bear fruit in the country. The cocoanut is eaten and the shell used as a hookah bowl.

Nim, a tree, Azadirachta indica *Juss*. Common. The leaves are used in gruel, and this is considered a tonic. At the name-giving festival *nim daḳ maṇḍi* is always used; it is further customary to drink *nim daḳ maṇḍi*, when the sower comes home after having sown the first paddy; all of the household drink this, it is believed that then the ears will be bitter, so that flies will not "drink" them. It is also used as a remedy against certain stomach troubles, especially worms.

Nũṛũć, the Indian Laburnum, Cassia Fistula *L.* The flowers are eaten in curry and the fruit is used in Santal medicine.

Olaṫ, there are two trees so called, *jaṅ olaṫ*, Grewia asiatica *L.* and *poska olaṫ*, Kydia calycina *Roxb.* Dr. Campbell mentions also simply *olaṫ* as the Santal name of Grewia vestita *Wall.* and of Grewia tiliæfolia *Vahl*, not known in the Santal Parganas.

Ọmẹ, a large forest tree, Saccopetalum tomentosum *H.f. & Th.* (According to Dr. Campbell, Miliusa velutina *H.f. & Ths.*) They have *hoṛ ọmẹ*, lit. man *ọmẹ*, Saccopetalum longiflorum *H.f. & Th.*, and *seta ọmẹ*, Saccopetalum tomentosum *H.f. & Th.* The fruit of both is eaten.

Pakaṛe, Ficus infectoria *Roxb.* The fruit is eaten.

Papiṭa, the same as *ạmrit*, g.v.

Piṇḍe, a small tree, Randia uliginosa *DC.* The unripe fruit is cooked and eaten in curry or with Mahua.

Pọḍọ, two varieties: *hoṛ pọḍọ*, Ficus Cunia *Ham.* the fruit of which is eaten, and *seta pọḍọ*, dog *pọḍọ*, Ficus hispida *Linn.* fil., which is not used as food.

Põpṛõ, a tree, Gardenia latifolia *Aiton.* The fruit is eaten. Bells are made from the wood, and give a good sound.

Sahar, a tree, Dillenia pentagyna *Roxb.* The fruit is used as a condiment in curry. The bark is used in Santal medicine.

Sarjọm, the Sal tree, Shorea robusta *Gaertn.* The most common tree found in the forests, where the Santals live. It must be found in their sacred grove. The fruit is eaten. Parts of it are used in Santal medicine.

Sekra, a small tree, Zizyphus rugosa *Lam.* The fruit is eaten and the bark has medicinal properties.

Seta ãṇḍga, a small bush, Grewia pilosa *Lam.* (or Grewia polygama *Roxb.*). The fruit is eaten, and the roots are used in Santal medicine. Besides *seta ãṇḍga* (lit. dog scrotum) the following names are used for the same bush: *seta ãṇḍir*, *seta ãṛga*, *seta kaṭa* and *seta peska*.

Siñjọ, the Bael, Ægle Marmelos *Correa.* Commonly grows wild but is also cultivated. The fruit of the cultivated variety is much larger than that of the wild one. The fruit is excellent as a sherbet, and is much esteemed as a specific in stomach disorders (such as dysentery). The leaves, bark and roots are used in Santal medicine.

Sọ, the Black Plum tree, Eugenia cumini *Druce.* Generally cultivated but it is also found wild (v. *kod*). The fruit is eaten and is very good. The juice of the fruit is squeezed out and used as a medicine.

Sọsọ, the Marking Nut tree, Semecarpus Anacardium *L.f.* The orange coloured hypocarp is eaten. An oil is distilled from the drupe that is much used in Santal medicine as a vesicant for animals. The drupe (*sọsọ jaṅ*) is also widely used as a vesicant against pain for human beings. When the oil is daubed round the stems of trees on which silkworms are feeding, it acts as a preventative against climbing ants.

Sunum jhor, Ficus Rumphii *Bl.* The fruit is eaten. Not common.

Tale [1], the Palmyra palm, Borassus flabelliformis *Murr.*, the most common palm in the Santal country, planted on embankments, boundaries, and so on. The fruit is eaten, and the pulp, when the fruit is ripe. The seeds are eaten by children, the hard shells of these being used for bells hung on goats. A sweet sap runs from the peduncles that are cut before flowering. The sap is collected in pots and fermented into toddy. The wood is used and the leaves are utilised for many purposes (thatch, umbrellas, rain-hats, etc.).

Taroṗ, a tree, Buchanania Lanzan *Spr.* The fruit is eaten.

Terel, the Ebony tree, Diospyros tomentosa *Roxb.* (or, Diospyros Melanoxylon *Roxb.*). Common. The fruit is eaten. The kernel of the unripe fruit is also taken out, rubbed, washed and eaten. The ripe fruit is further squeezed open, spread, out to dry, and when dry, pounded into a kind of flour, that is mixed with water into a sherbet and drunk.

Tihon, a creeper, Canavalia ensiformis *DC.* The fruit is eaten in curry.

Toṭnoṗaḳ, a tree, Eugenia operculata *Roxb.* The fruit is eaten.

Ul, the Mango, Mangifera indica *L.* The excellent fruit is much relished. The unripe fruit is also sliced, the slices being dried in the sun (this is called *aṃsi* [2], and is a custom adopted from the Hindus) and used as a beverage. The unripe fruit is also used for curry.

Upal baha, the Water Lily, Nymphæa Lotus *Linn.*, Nymphæa rubra *Roxb.* and Nymphæa versicolor *Roxb.* The tuberous root of all these (called *uḍhaṛ*, and treated as being animate) is eaten both raw and boiled. These and the flowers are also used in Santal medicine.

Poraeni, the Lotus, Nelumbium speciosum *Willd.*=Nelumbo nucifera *Gaertn.* The tender shoots are eaten boiled or in curry, whilst the seeds are eaten raw, roasted or boiled.

In connexion with fruits a few facts may appropriately be given about what the Santals call *rasa* [3], a word used for juice, must and honey, and also for wine (though this is not known to the ordinary Santals). The juice of most fruits or plants is not kept, but is sucked when found, mostly perhaps by children, but also by grown-up people. The following are the most commonly found:

Icaḳ rasa, the juice of the *icaḳ* flowers, Woodfordia fruticosa (L) *Kurz.* This is much relished.

Khijur rasa, the juice of the wild date, Phœnix sylvestris *Roxb.* This is fermented and used as a liquor.

Matkoṃ rasa, the juice of the flowers of the Mahua. The expression is also used of the liquor distilled from the dried mahua flowers.

Muruṗ rasa, the juice of the flowers of the Butea frondosa *Roxb.* Sucked especially by children.

So bele rasa, the juice squeezed out of the fruit of Eugenia cumini *Druce.* is used as a medicine.

[1] Bengali *Tāl—Ed.*

[2] Bengali *āmsi—Ed.*

[3] *Rasa* in Bengali means juice—*Ed.*

Tale rasa, the juice or sap of the Palmyra palm, obtained from the cut peduncles and used for making toddy.

Ul rasa, the juice of the mango fruit.

Darkha rasa, must or grape-juice, and now, commonly, wine. The Santals have no grapes.

Fowls and birds.

The Santals eat the flesh of a great variety of birds. Fowls are kept by every Santal family and their flesh is much relished and probably eaten more commonly than any other kind of flesh, especially when fowls are sacrificed to the bongas, or when they wish to give visitors a treat. Fowls and any birds eaten as curry are always cut into small pieces. The Santals always use their fingers when eating, having no spoons or forks; everything, therefore must be cut up into pieces that are easily handled. Eggs of all birds and fowls are boiled and eaten.

So far as is known to the writer the following is a complete list of the birds that may be taken for food. It should be noted that most of the scientific names given are the result of a visit to the Indian Museum in Calcutta where a number of Santals were taken to point out the birds they recognized. Where a query is written, it is intended to show that the Santals were not quite sure whether the bird seen was the one they know, and use as food.

Askal, a kind of partridge, said to live among stones on the hill sides; ? Francolinus vulgaris.

Bãk, the Paddy bird, Heron, Herodias alba. For varieties v. sub *kõk*.

Barǫmaṣiǫ, the Green Bulbul, Chloropsis jerdoni. So named from its varied call.

Baṭa, a Quail, Coturnix communis. They recognize a number of varieties of snipe called *baṭa*, viz. :—

Bhoṇḍa baṭa, a fairly large snipe.

Dak baṭa, the Painted snipe, Rostratula capensis, or Totanus glottis.

Dhinuar baṭa, the Fan-tailed snipe, Capella gallinago gallinago.

Guṇḍri baṭa, small, coloured like a *guṇḍri*, q.v.

Kũk baṭa, middle sized. So named from its call heard at night like *kũk kũk*, said to forebode rain.

Kheḍra baṭa, the smallest snipe known to Santals.

Khes baṭa, a small kind.

Laṇḍha baṭa, a small kind.

Ṭiṛuiċ baṭa a small kind; its call sounds like *ṭiċ ṭiċ*.

U guṇḍri baṭa, another name for *dak baṭa*, q.v.

Bęċ bęḍręċ, a small waterfowl, Nettapus coromandelianus (its call is said to sound something like its name).

Biń cẽṛẽ, Iynx torquilla. So named from its long, thin tail. The *laṅtiti* may also be so called.

Bir sim, the Jungle Fowl, Gallus bankiva. Fairly common.

Bǫrǫṛiń, the Indian Magpie, Dendrocitta vagabunda. So named from its call.

Bhaluą, the Swallow. The Santals distinguish:

Kaṭiċ bhaluạ, the Palm-roof Swift, Collocalia fuciphaga, or Cypselus infumatus.

Laṭu bhaluạ, the common Indian Crested Swift, Macropteryx coronata.

Buru bhaluạ, Hill swallow; known, but not seen in the country.

Cama canǫṕ (or *cama cakǫr*), two birds are so called, viz., Anthracoceros coronatus and Lophoceros birostris.

Cańcir, several birds are so called:

Care (or *cạri*) *cańcir*, the Forest Wagtail, Dendronanthus indicus.

Cirhǫċ cạncir, the Titlark, Anthus rufulus (so named from its call, which sounds like *cirhǫċ*).

Dak cańcir, the Deccan Wagtail, Motacilla dukhunensis, or M. leucopsis. Feeds near water.

Dhạkuċ cańcir and *Gạḍa cańcir*, other names for *Dak cańcir*.

Gại cańcir, the wagtail, Motacilla flava.

Ṭạṇḍi cańcir, a species of Wagtail.

Cirhǫċ, the same as *Cirhǫċ cańcir*, v. supra.

Ciṛiċ coṛoṅ, a sparrow-like bird.

Citri, a Partridge. The Santals distinguish:

Keṛọ citri, the Grey Partridge, Francolinus pondicerianus.

Muṇḍhaṭ citri, the Black Partridge, Francolinus vulgaris.

Dak baṭa, v. sub *Baṭa*.

Dak sim, the Cormorant, Phalacrocorax javanicus (or P. fuscicollis). The feathers of the tail and neck of this bird, tied to a piece of bamboo to form a kind of tuft, are stuck into the hairknot or turban of men dancing at marriages or at the Pata festival, are believed to be a safe preventative against *ban pạthri*, sudden illness, caused by witches, or swooning.

Dundu, an Owl. The Santals distinguish:

Kẹ dundu, a small owl, so named on account of its call *kẹ kẹ*.

Kheḍra (or *kheṛra*) *dundu*, a small owl.

Laṭ dundu, Asio accipitrinus.

Poṭọm dundu, a large owl, Bubo bengalensis.

Sakam dundu, a small owl.

U dundu, so named on account of its call *u u u u* .

Ḍạk, a water-hen, Gallinula phoenicura (so named on account of its call *ḍạk ḍạk*).

Ḍẹṛeṭ, a small bird; name due to its call which sounds like *ḍrreṭ ḍrreṭ*.

Ḍeṭ cẽṛẽ, a very small bird, also called *sãuṛi cẽṛẽ*.

Ḍheṅka, a species of Crane, Tringa platyrhyncha.

Band ḍheṅka, besides the same as for *ḍheṅka*, this name is also used for the Red-footed Pecked Ibis, Ciconia alba.

Baḍ ḍheṅka, ? Pseudotautalus leucocephalus; fairly common.

Dhipcui, the Racket-tailed Indian Drongo, probably Dissemurus paradiseus. Also called the chowkedar of the birds.

Ere, a Woodpecker.

Bhoṇḍa ere, a large species, Liopicus mahrattensis.

Goeṇṭha ere, a small kind.

Kabra ere, the Striped Woodpecker, Brachypternus aurantius.

Seṅgel ere, Tigra shorei.

Ere kisni, v. *kisni*.

Galoċ, the Hawk Cuckoo, Hierococcyx varius. This word is not used before women.

Gaṛuṛ, the Adjutant bird, Leptoptilus dubius.

Baḍ gaṛuṛ, the Bald-headed Adjutant, Leptoptilus javanicus.

Ḍheṅka gaṛuṛ, a Stork, a little larger than *baḍ ḍheṅka*.

Thaḷaḳ gaṛuṛ, Ardea argala.

The Adjutant and any part of the bird or its feathers are believed to be the death of snakes.

Geḍe, a Duck, the domestic duck.

Daḳ geḍe, a wild kind, able to fly; also called *arna geḍe*.

Nāi geḍe, the Ganges Duck.

Guṇḍri, a Quail. The Santals distinguish:

Gadle guṇḍri, the Blue-breasted Quail, Excalfactoria chinensis.

Ghuṛa guṇḍri, the Female Indian Bastard Quail, Turnix taigoor, or Turnix sykesi.

Huker guṇḍri, the Painted Bush-quail, Microperdix erythrorhynchus.

Kási guṇḍri, the Little Button Quail, Turnix dussumieri.

Khọ guṇḍri, a Quail, so called on account of its call (*khọ khọ*).

Ṭiṛa guṇḍri, the male of *ghuṛa guṇḍri*.

To catch quails the Santals keep a female bird as a decoy in a cage placed on the ground, with a number of snares arranged round the cage.

Gutruṫ, two species of Barbets, Megalaima caniceps and Xantholæma indica; one of these is also called *gaḍa gutruṫ*. So named from their call sounding like *gutruṫ gutruṫ*.

Ghardidi, a certain humming bird, the Tailor bird, Orthotomus sutorius.

Ghaṛwa, the Sparrow, Passer indicus.

Haṗuḳ, the Nightjar, Caprimulgus monticolus, or C. asiaticus.

Huċ bir, the Indian Pitta, Pitta brachyura.

Huhaṛ, the Green Pigeon, Crocopus chlorigaster.

Huker, v. *guṇḍri*.

Jejeṽer, a small bird, the size of a sparrow, but having a longer tail.

Jiaṃ (or *Jieṅ*), the same as the *ghardidi*, so called on account of its call, sounding like *jiaṃ jiaṃ*.

Jihu, two kinds:

Bhoṇḍa jihu, the Bengal Babbler, Malacocercus terricolor.

Jaṇum jihu, the Green Babbler, Chaltorius striatus.

Jhoŗojhoċ, the Pied Crested Cuckoo, Coccystes jacobinus. They believe that when this bird calls *phiŗiphiċ* it will be fine weather, and when *jhoŗo jhoċ*, there will be a spell of rain; *jhoŗo jhoċ* means drenched.

Kaḥu, a Crow. They eat all young crows, before they can fly, but not full-grown ones, because these feed on anything. They distinguish the following kinds:

Buru Kaḥu, a large kind, a Raven; also called *gaḍa kaḥu*.

Bhoṇḍa kaḥu, the Bow-billed Corbie, Corvus levaillantii.

Kuilą Kaḥu, a wholly black Crow.

Kheḍra kaḥu, a small kind.

Poṇḍ kaḥu, a white Crow, said to be a crow, but very rare.

Kalaia, the Cuckoo Shrike, Graucalus macei; also called *kaloi*.

Kāṛī, Cuculus canorus. Very voracious; it eats chickens and silkworms. Also called *pirthi cēŗē*.

Kasi jera (or *kasi jeraḳ*), the same as *kasi guṇḍri*, v. *guṇḍri*.

Kerkeṭa, the Brown Shrike, Lanius cristatus, also called *jhaṭa kerkeṭa*.

Baghe kerkeṭa, Lanius melanocephalus.

The name is due to its call sounding like *ker keṭe keṭe*; when this is heard, it is a sign that the cold season is setting in.

Kikir, the Kingfisher. The Santals distinguish three kinds:

Bhoṇḍa kikir, the large Kingfisher, Halcyon fuscus.

Ḍuċ kikir, the little Kingfisher, Alcedo bengalensis.

Kamar kikir, the medium-sized Kingfisher, Alcedo ispida.

Kēhē, the Maroon-backed Kite, the male is called *araḳ kēhē* and the female *heŗaḳ kēhē*.

Kisni, the Myna, Sturnopastor contra. They distinguish:

Care kisni, Sturnopastor contra, the Pied Starling; also called *ęrę kisni* and *naṅgar kisni*.

Ḍoḍhoŗ kisni, Gracula religiosa; also called *ḍoṇḍhoŗ kisni* or *bhoṇḍa kisni*, the first name being due to their having their nests in the hollows in trees (*ḍoḍhoŗ*).

Kol, the Indian Cuckoo, Cuculus indicus.

Korkoṭ maraḳ, a small kind of peafowl or possibly a pheasant common in Assam.

Koḳoŗ, an Owl. They distinguish:

Dereṅ koḳoŗ, the Collard Scops Owl, Scops bakkamoena, or Scops lettia.

Laṫ koḳoŗ, Scops spilocephalus, also called *dundu koḳoŗ*.

Bhuḳ koḳoŗ, an owl nesting in a hollow in a tree. This name is used of women who do not go out and who are reserved.

Kõḳ, a Paddy-bird. The Santals distinguish:

Bak kõḳ, Herodias alba.

Bakoli kõḳ, the same as *ńindą kõḳ*, q.v.

Bitkil kõḳ, the same as *gąi kõḳ*, q.v.

Ḍheńka kõḳ, a very large kind with a black beak.

Gaı̣ kõk, the Cattle Egret, Bubulcus coromandus. So named because it is often seen perched on cattle.

Laṛ kõk, Bubulcus coromandus.

Loboḳ kõk, Ardeola leucoptera (?).

Lọboe kõk, the same as *bak kõk*.

Ńinda kõk, Nycticorax griseus, called Night Paddy-bird, because it feeds at night. It might be noted that the name *kõk* is a near reproduction of the call of most of these birds.

Kuhi besra, an Osprey, Spilornis melanotis.

Kuṛi ṭukuć, two birds, the Lapwing, Sarcogrammus indicus, and Sarciophorus malabaricus. So named from their call as heard by the Santals.

Kuṭam dạbla, the Indian Hoopoe, Upupa epops, or Upupa indica.

Kheṛ guñja, a small bird about the size of a sparrow, Orthotomus longicauda.

Laṅtiti, the Paradise Fly-catcher, Terpsiphone paradisi.

Laṇḍha, the same as *poĺ ḍọḍọ*, q.v., called *laṇḍha*, because it is found among paddy stubble; also called *laṇḍha galọć*, a word not used before women.

Lipi, the following birds are so called:

Bhoṇḍa lipi, the Indian Corbie, Corvus macrorhynchus.

Gõeṭha lipi, the Ashy-crowned Finch Lark, Pyrrhulauda grisea.

Kumba lipi, the Madras Bush Lark, Mirafra affinis.

Lọboe ḍak, the long-tailed water-hen, Hydrophasianus chirurgus.

Macreṅka, a tern, Sterna melanogaster.

Marak, the Peafowl, Pavo cristatus. This is fairly commonly found wild. *Piṅcạr marak* is the peacock and *Mạtu marak* the peahen.

Korkoṭ marak, v. *korkoṭ*.

Poṭọm marak, a large kind of bird; some say it is a name for the peahen.

Mạhkạl, the Indian Crow Pheasant, Centropus sinensis.

Heṛak mạhkạl, likely the female, others say it is the same as the *galọć*.

Mạnikjọṛ, the White-necked Stork, Ardea leucocephala. Rare.

Ńokor, a small bird, ? Arogetes sachatilis. It is eaten by old people, but not by young folk as they believe this will cause "the trembles". *Ńokor* is their name for paralysis agitans, St. Vitus' dance. The name of the bird is due to its trembling movements.

Oṛẹ, the Bush-quail, Perdicula asiatica. This is caught in many ways, as well as by using decoy females.

Pajhaṛ, an Eagle.

Buru pajhaṛ, the Hill-eagle, Aquila imperialis.

Hako saṕ pajhaṛ, a Fish-eating Eagle (also called *daḳ pajhaṛ*, Water-eagle), ? Spizætus limnætus.

Parwa, the common Pigeon, Columba livia intermedia. There are many varieties, named according to their shape and habits.

Baji parwa, tumbles in the air.

Jhaṅga parwa, has feathers down its legs.

Khirki parwa, stays in openings in the wall.

Oṛak parwa, house pigeons.

Rajmoholia parwa, a large kind, named after Rajmahal.

Ṭaungi parwa, kept in lofts.

Pio, the Golden Oriole, Oriolus melanocephalus (*Linn.*).

Potam, a Dove. The Santals distinguish the following:

Barge potam, small, brown, Turtur cambayensis (*Gmel.*), or Turtur orientalis (*Lath.*).

Bosko (or *bhosko*) *potam*, large like a pigeon, colour variegated.

Guṛughum (or *guḍrugum*) *potam*, the same as *mala potam*, q.v. So named from its call.

Huhu potam, the Imperial Dove, Carpophaga aenea (*Linn.*). So named from its call.

Kẽndrõ potam, the Spotted Dove, Turtur suratensis (*Gmel.*).

Kekę ḍebęr, a small kind, Turtur orientalis (*Lath.*).

Kisāṛ potam, the same as *huhu potam*. Said to be so named from its habit of collecting grain in small "bundles" of earth.

Kuḍbur potam, the same as *mala potam*.

Mala potam, the Ring Dove, Turtur risorius (*Linn.*).

Peṭęr potam, the same as *bosko potam*; name due to its call, heard as *peṭęr duk*.

Pondhaṛ potam, a large kind, Chalcophaps indica (*Linn.*).

Saṇḍi kakar potam, the same as *barge potam*; name due to its call; also called *suṇḍi kukur potam*.

Tilai potam, the same as *mala potam*.

Toyo ḍędgęr (or *toyo hoḍgęr*) *potam*, the same as *barge potam*.

Thękrę potam, the same as *kẽṇḍrõ potam*.

Ṭhikri potam, the same as *barge potam*.

Poĺ ḍoḍo, the Flamefronted Flower-pecker, the same as *landha*. So named from its call sounding like *poĺ poĺ*.

Rici, a kind of Falcon, the Pale Harrier, Circus macrurus (*Gmel.*). Sometimes it is also kept for hunting purposes.

Sahraj, the Sarus Crane, Megalornis antigone (*Linn.*).

Sãk, the Goose. Rare amongst the Santals.

Sasaṅ cẽṛẽ, the Grey-headed Fly-catcher, Culicicapa ceylonensis (*Swain.*).

Sasaṅ galoċ, a small bird. The name is not used before women.

Sasaṅ pio, the same as *pio*, q.v.

Saṵri cẽṛẽ, a very small bird, so called because they generally make their nest in a thatching-grass field; they are also called *ṭhęċ ṭhęċ cẽṛẽ*, because their call sounds like *ṭhęċ ṭhęċ*.

Serale, a wild Duck, fairly common and much relished.

Sim, the common domestic Fowl. The Santals distinguish:

Belati sim, a large kind; so named because believed to have been brought from Europe.

Gędę sim, having short legs like those of the ducks.

Jhaṅga sim, having feathers down the legs.

Karanat sim, having black feathers, black skin and black bones; used as medicinal food in certain diseases.

Duci sim, having some feathers standing out on the neck.

Kulam sim, a large kind.

Khaṛku sim, a very tall kind.

Kheḍra sim, having scanty feathers.

Oṛe sim, a fowl resembling the *oṛe*, the Bush-quail.

Risa sim, having reverted feathers.

Saṵria sim, a kind that lays many eggs and produces many chickens. The cocks are called *sim saṇḍi* and the hens *sim eṅga*.

Besides the domestic fowls mentioned the following are also called *sim* by the Santals:

Bir sim, that has already been noted.

Daḵ sim, a kind of wild duck smaller than the *serale*.

Ṭhu ṭhukur sim, the Turkey, very rare amongst the Santals.

Suċ, the Purple Sunbird, Cyniris asiaticus (*Lath.*), also called *sakwa suċ*. Another small bird is also called *suċ* or *gadle suċ* and *jugi suċ*. The name is due to the call of these birds, heard by the Santals as *suċ suċ*.

Ṭarjua, the Black Ibis, Inocotis papillosus (*Temm.*). Fairly common.

Tirmuṭi, v. *ṭirmuṭi*, the common name.

Tuṫ, the Crimson-breasted Barbet, Xantholæma hæmacephala (*P. L. S. Müller*). So named from its call sounding like *tuṫ tuṫ*.

Ṭiċ ṭoṛoḵ, the Bengal Bulbul.

Ṭikmiṅ, a kind of Falcon, ? Cerchneis tinnunculus (*Linn.*).

Ṭirmuṭi, a small kind of Falcon, Falco severus (*Horsf.*), or Tinnunculus alaudarius (*Linn.*). Kept to catch birds, esp. by Hindus.

Ṭiroṃ, the Indian Bee-eater, Merops viridis (*Linn.*).

Ṭiṭiṛhiċ, also called *ṭeṭe ṭeṅgoċ*, two species of Lapwing, Sarciophorus malabaricus (*Bodd.*), and Sarcogrammus indicus (*Bodd.*) (acc. to Dr. Campbell). One of them is also called *gõeṭha ṭiṭīṛhiċ*.

Ṭoya, the Indian Blue-jay, Coracias indica (*Linn.*).

Uṛiċ, two small birds, called *haṭi uṛiċ* and *tope uṛiċ* (the Indian Shama). So named from its call *uṛiċ uṛiċ*. To hear the call of an *uṛiċ* on the left hand side, when going to do business, e.g., to arrange a marriage, is a bad omen, hearing it on the right hand side is a good omen.

Animals eaten.

Let us now speak about the animals that the Santals eat, taking them in alphabetical order.

Bana, the Indian Black Bear, Melursus ursinus (*Shaw*), also called *parkoṃ bana*; fairly common in the forests.

Banwaṛ, a Jungle Mouse.

Barduṛuć, a Bat. The Santals distinguish the following:

Coṭo barduṛuć, Nycticejus kuhli (*Leach.*).

Cuṭiạ barduṛuć, lit. the mouse bat, the smallest kind.

Goḍo barduṛuć, Cynopterus marginatus (*Geoff.*).

Họn barduṛuć, lit. rat bat; a fairly large kind.

Kạhu barduṛuć, the Flying Fox, Pteropus medius (*Temm.*).

Pọṭọm barduṛuć, a species so called.

Boyo bana, the Indian Badger, Mellivora indica (*Kerr*).

Bhiḍi, an Ewe, sheep. A ram is called *bheḍa* [1], but the name of the female is used as a name for sheep in general, just like *gại* for cattle in general. Sheep are commonly kept by Santals for food, not for their wool.

Gaḍọr bhiḍi, a kind of Sheep with a very heavy tail; not ordinarily kept by Santals but often seen by them.

Bhiḍi jel, a kind of Deer, Ovis vignei (*Blyth.*).

Cẹmẹṅ, the Mongoose, Herpestes auropunctatus (*Hodgs.*). Often kept by the Santals because of their usefulness in connexion with the catching and killing of snakes and rats.

Cund, the Musk-rat, Crocidura caerulea (*Kerr*). They distinguish two varieties, *bhoṇḍa cund*, large, and *reṭhẹ* (or *reṭhea*) *cund*, a small kind. Snakes are believed to avoid houses where there are musk-rats. Some Santals will eat them, after having cut away the head, but generally only when there is a scarcity of other kinds of food.

Cuṭiạ, a Mouse, Mus musculus (*Linn.*).

Daṅgra, an Ox; v. *gại*.

Eṛgo, a Field-rat (coloured like a hare).

Gaḍọr bhiḍi, v. *bhiḍi*.

Gại [2], a Cow; word used for cattle in general. Bullocks and often also cows are used for ploughing and carting. The Santals have no objection to eating the meat of cows and bullocks, in fact they relish it, but owing to the landlords and their Hindu neighbours they have to exercise restraint, and they will mostly go about obtaining, preparing and eating it at night. Bullocks may be sacrificed. The writer once came across a large number of Santals who had cut up a couple of cattle who had died from some disease. He tried to warn them not to eat such meat; but they had no fear of anything happening to them; and so far as is known no harm came to them. The milk is used, but Santal cows give very little.

Goḍo, a Rat. The Santals distinguish the following:

Bhus goḍo, the Bandicoot Rat, Nesocia bandicota (*Bechs.*) (or, Mus malabaricus *Shaw*, or Mus giganteus *L.*). This rat digs holes in embankments, near rice-fields, etc. The Santal believes that they gather food, sufficient for a whole year at a time and store it in their holes.

Caole goḍo, the common House-rat.

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[1] Also Bheḍa in Bengali—*Ed.*

[2] Also Gại in Hindi and Bengali—*Ed.*

Dander goḍo, living near rice-fields where they burrow holes and collect quantities of paddy. The same is also called *kheṛ goḍo*, *piṇḍhe goḍo* and *ṭaṇḍi goḍo*.

Muruṗ goḍo, a small light-grey rat, also living near rice-fields, burrowing there.

To catch rats a number of Santals will go to a place where they have found that rats have burrowed. They dig them out and kill them, and if they cannot reach them in this way, they fill the hole with water, which will drive them out. They wrap the head, the intestines and the legs up in separate leaves and put each on burning coals to fry, with salt, spices and oil added, if they have such; or they may cook it with rice into a hash. They will either eat this on the spot or, dividing it into equal portions, each take one portion home. The flesh is divided in the same way and taken home, where it is made into curry. Before being cut up such small animals are hammered with a stone, and then singed.

Haṭi,[1] the Elephant. The writer's informant stated that Santals will eat elephant flesh and they may have done so in olden times, but nowadays they never get an opportunity.

Hoṇ, a Rat. The *hoṇ* has, except as mentioned, hair on its tail. It is not hairless like the tail of the *goḍo*. The Santals distinguish:

Cãuriạ hoṇ, the same as *uriċ hoṇ*, q.v.

Kheḍra (or *kherṛa*) *hoṇ*, a small rat with a bare tail.

Oṛaḳ hoṇ, a rat commonly found in houses.

Sarṅga hoṇ, Mus rattus (*Linn.*).

Uriċ hoṇ, the Gerboa-rat, Gerbillus indicus (*Hardw.*).
Hunted like *goḍo*, but smoked out, when necessary.

Hoṛo, a Tortoise. The Santals distinguish the following:

Buru hoṛo, lit. Hill-tortoise.

Caṭom hoṛo, the same as *lapra hoṛo*.

Daḳ hoṛo, Trionyx gangeticus (*Cuvier*) (?).

Lapra hoṛo, Kachuga dhongoka, found in the Ganges and in the Eastern parts. It has a soft edge round the leg openings.

Raj hoṛo, lit. King-tortoise.

Ṭaṇḍi hoṛo, a small kind, Morenia ocellata (*Dum. & Bibr.*).

Ṭoklaḳ hoṛo, a kind of tortoise living in water. The name is said to be due to its resemblance of a *ṭoklaḳ*, a small earthenware vessel used for cooking curry.

Ṭukuċ hoṛo, a kind of tortoise.

Jel, a Deer. All kinds of deer are called *jel*, perhaps because the only meat (*jel*) the Santals originally had was that of the deer. They know a number of different kinds, the names being often different for the male and the female of the same species, the word *jel* is very often omitted.

Badaṛ seleṗ jel, the buck of the Ravine Deer, Gazella bennetti (*Sykes*).

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[1] Also Haṭi in Hindi and Bengali—*Ed.*

Bhãuṭiạ jel, the Indian Black Buck.

Ghọṭreṭ (or *ghoṭra*) *jel*, the hind of the *badaṛ seleṗ jel*, Gazella bennetti (*Sykes*).

Jhaṅkar, the buck of the Spotted Deer, Cervus axis (*Erxl.*). They distinguish:

Paḍa jhaṅkar, an old buck the horns of which have fallen off; and *poṇḍa jhaṅkar*, having whitish horns.

Also *Icạk jhaṅkar*, Cervus porcinus (*Zimmer*).

Kuṛmbi seleṗ jel, the hind of the *badaṛ seleṗ jel*. Some Santals say that this is the same as *badaṛ seleṗ*.

Meṛọm jel, lit. Goat-deer, the same as *ghọṭreṭ jel*.

Murmu, the Nilgai, Boselaphus tragocamelus (*Pallas.*) Tabu to people of the Murmu sect.

Mũṛghos (also *muṇḍghos*) *jel*, a small species, not known in the Santal Parganas.

Posta, the hind of the *jhaṅkar*.

Poṭreṭ jel, the same as *ghọṭreṭ jel*.

Saram, the Sambar Stag, Cervus unicolor (*Besch.*), also called *gadle saram*. *Gutruṭ saram* is a stag that has not as yet got horns; *paḍa saram*, is an old stag, the horns of which have fallen off.

Sạl, the Gaur, Bibos gaurus (*Ham. Smith*) (Gavæus gaurus of *Blyth*); also *bir kaḍa*, lit. forest buffalo. The cow is called *sạl bitkil*.

Sosam, the hind of the *murum*.

Taṇḍi seleṗ, the same as *badaṛ seleṗ*.

It should be noted that, except in the reserved forests, deer are now practically extinct in the Santal Parganas.

Jhīk, the Indian Porcupine, Hystrix leucura (*Sykes*).

Kaḍa, the Buffalo; the cow is called *bitkil*. They have quite a number of prefixes, varying according to the appearance of the animal and its horns. The Buffalo is now fairly common among the Santals, at least among well-to-do people. They will eat the flesh, but very rarely can afford to do so. The milk is also used.

Kul, the Tiger, Panthera tigris (*Linn.*). The tiger is now fairly rare in the Santal Parganas. The Santals enjoy eating it, when they get an opportunity.

Kulại, the Bengal Hare, Lepus ruficaudatus (*Geoff.*). Fairly common and much hunted. They distinguish:

Buru kulại, lit. Hill-hare; a large kind found in the hills.

Ergo kulại, found in Assam. These look like ordinary hares, only their ears are small.

Kheḍra kulai (also called *reṭhea kulại*), a small thin kind.

Saphọn kulại, the Coney.

Khikṛī, the Bengal Fox, Vulpes bengalensis (*Shaw*).

Laṛ togo, the red Squirrel.

Maṅgaṛ, the Alligator, Crocodilus palustris (*Less.*). Now very rare in the Santal Parganas, and only seen in the great rivers.

Maḥlạ, the Palm Civet, Paradoxurus hermaphroditus (*Pallas*), var. niger (*Blanf.*) (or Paradoxurus musanga (*Jerdon*)).

Meṛom, a Goat, also used as a general name for male and female animals; *mīhū meṛom*, lit. calf-goat, is used for cattle in general, including cows and bullocks, goats and sheep. *Boda* or *meṛom boda* is the Santal name for an uncastrated he-goat. *Meṛom khạsi* is a castrated goat, the flesh of which is considered excellent as curry, and constantly used.

Odam, the Indian Otter, Lutra vulgaris (*Erxl.*), and Lutra leptonyx (*Horsf.*).

Ruṇḍạ, a Jungle Cat. The Santals distinguish:

Badaṛ ruṇḍạ, the Jungle Cat, Felis chaus (*Gülden.*), about the size of a domestic cat.

Boas (or *boaḳ*) *ruṇḍạ*, the large Tiger-cat, Felis viverrina (*Bennett.*). So named from their call, sounding like *boas boas*.

Kubṛạ ruṇḍạ, a species of jungle cat.

Sagaḳ ruṇḍạ, the same as *badaṛ ruṇḍa*.

Silạ ruṇḍạ, a species of wild cat.

Saram babea, a kind of Mongoose, Herpestes smithi (*Gray*), large.

Seleṗ, v. sub *jel*.

Soǥoḷ, the Civet Cat, Viverra zibetha (*Linn.*) (or Vivericula indica (*Hodgs.*)).

Sukri,[1] a Pig. Most Santals prefer the flesh of pigs to that of any other kind of animal, although a few will not touch it on account of the way pigs feed. Most Santals keep pigs. Practically all male pigs are castrated (they are called *sukri baḍhia*). A boar is called *kuḍu sukri*. Besides the domesticated pigs wild ones are also found:

Bir sukri, the wild Pig, Sus indicus (*Gray*). These are still found, where there are forests. Pigs, also domestic ones, are killed by shooting them with arrows.

Tayan, the Broad-headed Crocodile, Crocodilus palustris (*Less.*). What has been said about the *maṅgaṛ* also applies to the *tayan*.

Tạruṗ, a Leopard. The leopards are rather plentiful in the country, and are not only eaten, but their whiskers and claws are used as amulets, giving the wearer luck and strength in certain matters. They distinguish several kinds of leopards. It may be remarked that even tigers are called *napṛaḳ* or *maraṅ tạruṗ*, lit. big leopard.

Kurse baha tạruṗ, the largest kind, so named from its colour like the *kurse* flower. It is as large as a small tiger; the writer once measured one killed outside his station; it measured seven feet. It was cut up and eaten.

Laṛ sakam tạruṗ, large, of a light colour.

Poṭea tạruṗ, the small kind (also called *ḍegra tạruṗ*).

Sona citạ tạrup, of medium size, probably the most common in the country.

Ad baghin tạruṗ, lit. half-tiger leopard; a large kind.

Toṛ, a Squirrel, Sciurus tristriatus (*Waterh.*) (or Sciurus palmarum (*Linn.*)). Common.

Toyo, the Jackal, Canis aureus (*Linn.*). Very common, plays the same rôle in Santal folklore as the fox in European folklore.

[1] Bengali 'Sūkar'.—*Ed.*

Ṭikmiń (or *kiṭmiń*), a small tree-rat.
Uriċ hoṇ, v. sub *hoṇ*.

The catching, treatment, etc. of animals and birds.

Hunting is the great delight of Santal men. Anything that can be hunted is fair game and is eagerly pursued. The Santals have their annual hunt in which all men of the countryside are expected to participate, so much so that if they without good reasons do not follow the others, they are called "women". The annual hunt is the highest social function amongst the Santals. The scene of the hunt may be anywhere, where they have reason to believe that animals may be caught. When hunting they have certain customary rules which must be followed and which are of a communal character. The one who on the annual hunt first hits an animal, whether he kills it or not, has a right to the felled animal; but he must give certain parts to others, and he has to divide what is left with the men of his own village, only keeping certain parts for himself.

At other hunts the hitter and killer have their rights; but here also all participating get an equal share of the flesh, that is not prepared and eaten on the spot, to take home with them.

Of the head of sacrificed animals and fowls a hash is cooked with rice. Only men eat this; no woman is allowed to partake of it. When parts of killed animals or birds are brought back from a hunt, any man, whose wife is enceinte, must not be given any portion, to take home with him, in which there is a part of the head. If such a woman should eat this, it would mean something bad for her child, especially if it should be a boy when grown up he would be unable to kill any animal, when out hunting. People suffering from disease also must not eat the head.

If the skin of a killed animal is wanted, they naturally flay it. Otherwise it is singed. The animal is put on burning coals, and all hairs are singed off. Birds are similarly treated to singe off the feathers.

Small animals are to start with, frequently, beaten with a stone or an axe-head, to pulp, and are then put on live coals to be singed. Hares are similarly treated, but only the four legs and the head are beaten not the whole body.

Anything intended to be eaten as curry is, before cooking, cut up into small pieces. The Santals have no knives, forks or spoons and have to use the fingers of the right hand to convey the food to the mouth; hence the need for cutting it all up.

If meat of oxen or cows is brought, the Santals do not take this inside their houses, nor the vessels in which it is cooked. It is hung under the eaves at the rear of the house or under the eaves of the cowshed. When cooking it they put in salt, turmeric, seed of the Roselle plant, hemp seed, Niger seed and Sesame seed, all partially roasted and pounded. Men (not women) boil this meat, and men also serve it out. It is eaten in the courtyard.

The liver, lungs and intestines of larger animals are prepared separately.

Under the influence of their Hindu and (so far as pigs [1] are concerned) their Mohammedan neighbours some Santals have ceased to eat the flesh of many animals. They will not eat the meat of bullocks, cows and buffaloes and of pigs. It is not up to their standards of culture. Some folk say they feel disgusted at eating meats which their ancestors enjoyed. But, as a saying of theirs has it "If you become wealthy you will give up eating all kinds, but if you become poor you will eat everything".

Nowadays the Santals are compelled to rely mostly on agriculture. Except where there are reserved forests, where hunting is greatly restricted, the real forests have mostly disappeared, and the spoils of the chase are extremely poor, very much so when compared with what is said to have happened in former times. Hunting now, it seems, gives a good deal of enjoyment with but little spoils. They will hunt for hares and for rats, and for single animals that they have seen or heard about; and they will use snares or traps to catch certain animals and birds. Otherwise the game is only what they happen to come across accidentally and kill.

Curry.

A few words in connexion with the way in which the Santals prepare their *utu*, curry, may suitably find a place here. The procedure is naturally somewhat different for the different foods used, and all working cooks do not act in the same way. They have no recipes.

To prepare meat or flesh curry they generally proceed in the following manner:— Turmeric, leaves of Laurus Cassia *Willd.*, coriander seed, salt and spices are placed in oil in a vessel that has been heated; the vessel is then put over a fire, and when the oil boils, they add onions and pepper, and finally the flesh. It is then cooked until ready. Some do not use turmeric in all cases; especially is this the case when they make curry from hares.

With curry of fish, mushrooms, vegetables and split pulse (*dal*) they proceed in almost the same way, but in many cases they omit turmeric. When making *dal* curry, they first put the dal into hot water to make it into a soft mass, and turmeric and spices are added. Oil is poured into a heated vessel and made to boil, and onions and pepper are put in. When the onions have been boiled so as to look reddish, the *dal* is poured in. When cooking certain vegetables only salt is added; no oil and no spices are used.

The Santals fear the evil eye. To guard against this some women will take in their hand a little of the food that is to be made into curry and holding it over the vessel used they will say: "May it have a spell cast on it, may it get teeth". The meaning of this is said to be, that if any woman with an evil eye has looked upon it, no spell may be cast on the food, and it may be eaten and digested without any resultant stomach-ache, vomiting or diarrhoea.

Milk.

Before closing this section a few words may be added about the use of milk among the Santals. The cows, buffalo-cows and goats, that the Santals have, give, according

[1] Pig is taboo to the Hindus also.—*Ed.*

to our ideas, very little milk. If a cow gives one seer daily, it is considered extraordinary. It is significant, that, when being milked, a cow must have its calf (or, anyhow, a calf) standing at its head; otherwise it will not give any milk according to Santal experience. The Santals do not drink much milk. They will give fresh milk to their children, when the mother has too little or has died. They may also boil rice in milk and enjoy eating it in this way.

Dahe,[1] Curds, is not generally eaten alone, but together with parched and flattened rice (this is considered a great treat) or with Mahua. It is further used for churning butter. It is boiled and then poured into an earthenware vessel and kept there, more milk being constantly added. It soon becomes sour, but this does not matter.

The churning is done in the following way:—the vessel in which the *dahe* is kept is, when there is a sufficient quantity, placed at the foot of a post. They have a churning-staff, a staff of wood, generally bamboo, some five feet long, split at the lower end into four parts, that are kept apart by fixed cross-pieces. This churning-staff is put into the *dahe*, its top being kept in position by a loop of cord running round the post and the stick. Another long cord is taken three or four times round the churning-staff, and by alternately pulling this cord at each end, the staff is made to revolve. This may be done by either a man or a woman. The result is *naṇinu*,[2] unsalted butter. They do not know how to make this into butter, but make it into ghee.

The *dahe*, from which the *naṇinu* has been extracted is called *ghoṛ*,[3] butter-milk. This is considered very savoury and a very nourishing food.

Forbidden Food.

It may be of interest to state what Santals will not eat. They will not eat any kind of monkeys, as may be quite naturally supposed. Their traditions tell that the present-day *Bir hoṛ* (lit. forest men), a now very small tribe, originally belonged to the ancestors of the Santal people; but they were "outcasted", in every way ostracised, because they would kill and eat *hãṛũ*, the Hanuman monkey, Presbytis entellus. Strangely enough they have no objection to using the skin of these monkeys, bought from the *Bir hoṛ*, to cover the narrow end of their *tumdak*, dancing drum.

Santals will not eat horse-flesh. On two occasions the writer has been obliged to kill a pony. The Santals were on both occasions offered the flesh for food, but they absolutely refused to take it, and were apparently horrified at the offer.

They will not eat hyenas, seemingly on account of the way in which they feed. Some Santals will, for the same reason, refuse to eat pigs, although to most Santals their flesh is the best they know.

As regards birds, they will not eat any that are known to touch anything putrefying, e.g., practically all the vultures and the *jalo* falcon. Crows they will eat before they are able to fly, but not after they are full-grown ones; nor will they eat parakeets.

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[1] In Hindi Dahi, in Bengali Dai.—*Ed.*

[2] In Bengali Nani.—*Ed.*

[3] Bengali Ghōl.—*Ed.*

CRUSTACEANS, MOLLUSCS AND REPTILES EATEN.

Boḍa, a Python, Python molurus (*Linn.*). Fairly rare in the Santal Parganas, but common in the Eastern parts and Assam. The Santals distinguish the following:

Dudhiạ boḍa, lit. milk-python, so called on account of its whitish colour.

Dhimạ boḍa, lit. the mild-tempered python, it is marked somewhat like a Russell's viper.

Dhanwa boḍa, and *dhinuạr boḍa*, the same snake, kept by people, because it is believed to bring wealth.

Ramnat boḍa, a python that has rudimentary legs.

The flesh is considered excellent. Quite recently the Santals caught a python near to the writer's station. They brought it in to let people see this rare snake. Next day word was sent down to the village that the writer wanted to buy the skin, but the messenger came back saying that they had cut it to pieces and eaten it. They said it was fat and very good.

Jambṛo, the Dhaman or Rat-snake. The Santals distinguish:

Kod jambṛo, Ptyas mucosus; so named from its dark colour, like the colour of *kod* fruit.

Man baha jambṛo, having a yellowish colour.

Soṣọ jambṛo, black like *soṣọ*, the Marking-nut.

Toṛngoṛ jambṛo, light-coloured.

The *jambṛo* is treated as follows: When they have killed it they tie it to a tree by its head. One man takes hold of its tail and keeps it stretched out, while another man starts skinning it. The skin is cut along the backbone and torn off. Having made a cut at the neck they tear the flesh of one side off, and when this is done, the flesh on the other side is torn off in the same way. The flesh is next cut into pieces and collected on a leaf-plate. They thereupon beat the backbone with a stone and also do the same to the ribs. The tail is singed, and when all this has been sufficiently beaten, it is cut up into bits and mixed with the flesh on the leaf-plate. They put all in a small vessel or a large piece of broken earthenware, and cook it on a piece of rock or on a fireplace made of three stones. When they are cooking it, they take a ball of the stuff and break it into two; throwing one half in, they say: 'This is salt', and throwing the other half in, they say: 'This is turmeric'. And they who eat it find it savoury, as though salt and turmeric had been added. They say to the children, that they must eat with care, or they may get something sticking in the throat. The ancestors have said, that if you get a bone of a *jambṛo* sticking in your throat, and then do not find and kill and eat its mate, you will never get rid of the choking matter. To divide the flesh they make leaf-cups of one leaf, the leaf-stalk being used to keep the leaf in a proper position.

They have a curious superstition in connexion with the *jambṛo*. To see a *jambṛo*, before taking any seed out to sow is unfortunate, because the *jambṛo* is a being that attracts all luck to itself. To obviate this bad influence some people will, before they

see a *jambṛo*, roast some Mahua, Sesame and Niger seed, pound this and eat it. Every member of the household will each eat one ball of it.

So far as the writer has been able to find out, the Santals do not eat any snakes other than those mentioned. A Santal once told the writer that he had one day seen a snake entering a hole; thinking it was a *jambṛo*, he had taken hold of its tail and tried to pull it out. He did not get the whole out; it broke, and the head was left in the hole. The man prepared and ate what he had got; but next day he felt very queer. He then went and dug out the head of the snake and found that it was the head of a cobra. Many cobras look very much like a *jambṛo*, so that the mistake is understandable. The Santals have an idea that all cobras are female, and that they copulate with these rat-snakes. They have often seen them copulating, they say.

Daḵ goṅgha, a large snail, living in water. The flesh is eaten.

Icaḵ,[1] a Prawn. Very common in the Santal country; eaten as curry. Also called *reṭhę icaḵ*, small prawn, to distinguish it from the *sole icaḵ*.

Sǫlę icaḵ, a large kind of prawn, not so common as the *reṭhę icaḵ*.

Jhinuk,[2] a Mussel. The flesh is eaten.

Kaṭkǫm,[3] a Crab. The Santals distinguish the following, the flesh of which is eaten as curry:

Baḍ kaṭkǫm, common in the higher rice-fields.
Baihaṛ kaṭkǫm, the same as *baḍ kaṭkǫm*, but found in the low-lying rice-fields.
Buru kaṭkǫm, a small black kind, found in hill streams.
Des kaṭkǫm, the same as *baḍ kaṭkǫm*.
Dhiri kaṭkǫm, found under stones in rivers, a large kind.
Patal kaṭkǫm, the same as *dhiri kaṭkǫm*.
Pǫkǫṭ kaṭkǫm, the same as *baḍ kaṭkǫm*.
Rega kaṭkǫm, a small kind.
Reṭhę kaṭkǫm, another small kind.
Sǫḍǫḵ kaṭkǫm, a crab found in rivulets, resembling *buru kaṭkǫm*, but not so black.
Toa kaṭkǫm, white and soft, found in rice-fields.

Rǫkǫć, a Periwinkle, Whelk. The flesh is eaten as curry. The Santals distinguish the following:

Coelo rǫkǫć, a small periwinkle having a thin tapering shell.
Jǫm rǫkǫć, any periwinkle that is eaten, the most common is Melanoides tuberculatus. A number of *rǫkǫć* are not eaten.

Roṭę, a Frog. Of frogs the Santals eat:

Baṛuḍaṅ, the Bull-frog, Rana tigrina *Daud*.
Haṛdia baṛuḍaṅ roṭę, the yellow Bull-frog.

Other frogs than these they do not eat; rather they express horror at the mention of some of them.

[1] In Bengali Ichā.—*Ed.*
[2] Also Jhinuk in Bengali.—*Ed.*
[3] Kaṅkrā in Bengali.—*Ed.*

Tɛrhɔ̄ṭ, the Iguana. The Santals distinguish:

Ḍaḍ tɛrhɔ̄ṭ (also called *ṭaṇḍi tɛrhɔ̄ṭ*), Varanus flavescens *Gray*.

Baihaṛ tɛrhɔ̄ṭ (also called *piṇḍha tɛrhɔ̄ṭ*), Varanus monitor(?). The flesh of both is very much relished. They are now becoming rare in the country. The skin is used for covering part of the Santal fiddle.

Honey.

It should be mentioned that the Santals collect and use the honeys of different kinds of wild bees and insects. They naturally have not yet reached the state of keeping bees. Their name for honey is *rasa*.[1] They distinguish:

Dumur rasa, the honey of a wild bee called *dumur*.

Kaṭ uru rasa, the honey of a large black wasp, also called *rasa uru*; from this they also prepare a kind of small sweet balls that are eaten.

Luti rasa, the honey of the now very rare *luti*, Trigona terminata.

Ñɛlɛ̄ rasa, the honey of the *ñɛlɛ̄*, Apis dorsata *Fabr.* This bee is fairly common and often seen. When they are swarming they make their hives shaped like a large rudder suspended from trees. The Santals eat the young *ñɛlɛ̄* bees.

Tɛrɔm rasa, the honey of the *tɛrɔm*, Apis florea.

Fishes.

Where not otherwise stated, the fish mentioned below all live and are caught in the rivers. They are eaten mostly as curry.

Aṛ,[2] a not very common fish, Macrones aor (*Ham. Buch.*).

Badhɔṛ, Notopterus chitala (*Ham. Buch.*), a fish full of bones (hence probably the name, *badhɔṛ* meaning twisted, crossgrained).

Bāspata,[3] Chela bacaila (*Ham. Buch.*). The word literally means bamboo leaf.

Bạmbi, Anguilla elphinstonei (*Sykes*), an eel. Specially applicable to large specimens. *Bạm*[4] is also used by itself.

Bạslạ hako, lit. adze-fish. Large, not common.

Boaṛ,[5] two kinds of fish; the one called only *boaṛ* being Wallago attu (*Bloch.*).

Raghɔ̄ boaṛ (also called *raghɔ̄ṕ*[6] *boaṛ* or *rạghu boaṛ*). It might be mentioned that the *raghɔ̄ṕ boaṛ* is mentioned in the Santal traditions as the fish that was called on to raise earth from the sea to make land; but all the earth melted for this fish.

Siṭkạ boaṛ, is a name used for the Wallago attu (*Bloch.*) when still young.

Bumbuć, Lepidocephalichthys guntea (*Ham. Buch.*). When large it is called *buḍhi bumbuć*. Considered excellent food.

Caole bumbuć, a small fish, often found in rice-fields.

Kaḍa bumbuć, possibly only another name for *bumbuć* when dark-coloured.

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[1] Rasa in Bengali means Juice.—*Ed.*

[2] Also in Bengali Ār.—*Ed.*

[3] Same in Bengali.—*Ed.*

[4] Also in Bengali.—*Ed.*

[5] Cf. Boāl in Bengali.—*Ed.*

[6] Same in Bengali.—*Ed.*

Kul bumbuć, Botia dario (*Ham. Buch.*).

Cọć bumbuć, a fish so called, because it gives a kind of squeak (*cọć*) when caught.

Bheḍa hako, lit. ram-fish. Not common.

Calha, Barilius bendelisis, var. coesa, *Ham. Buch.*, considered very good food, especially during the cold season.

Rodo calha, a certain fish.

Calka, probably the same as *calha* (name not known in the Santal Parganas).

Citol,[1] Notopterus chitala (*Ham. Buch.*), a broad, flat and spotted fish. Sometimes kept in tanks.

Coḍa, the same as *coḍgoć*, q.v. Large specimens caught in rivers are often called *gaḍa coḍa*.

Coḍgoć, Ophiocephalus gachua *Ham. Buch.* Found also in rice-fields. (Divorced girls and this fish are said to be of the same nature, always moving about.)

Dũṛĩ, also called *baihaṛ dũṛĩ*, *lọsọt dũṛĩ* (from the places where they are found, in low-lying rice-fields or in mud) or *maṭ sakam dũṛĩ* (lit. bamboo-leaf, from its shape), Rhynchobdella aculeata (*Bloch*).

Gaḍa dũṛĩ, lit. river *dũṛĩ* (because it is found in rivers); also called *kabra* or *laṭu dũṛĩ* (*kabra* means spotted, *laṭu* big). Mastacembelus armatus (*Lacép.*). Very slippery, eel-like.

Ḍaṇḍka, Perilampus laubuca (*Ham. Buch.*) (also called *maraṅ ḍaṇḍka*, big *ḍ.*). Common during the rainy season.

Kaṭić ḍaṇḍka, Danio (Brachydanio) rerio *Ham. Buch.*

Sadọm ḍaṇḍka, Esomus danricus (*Ham. Buch.*). Considered good food. *Ḍaṛka* and *ḍhaṇḍka* are the same as *ḍaṇḍka*.

Gajal[2] (or *gadjal*), a fish found in shallow lakes or marshes.

Gaṛai,[3] Ophiocephalus gachua (*Ham. Buch.*). They bury themselves in mud and are considered one of the best for eating. They are another kind of *coḍgoć*.

Gendlaṅ, a small kind of fish. This word is also used for small fish in general (also *geńjlaṅ*).

Ilsa,[4] the Hilsa or Sable fish, Clupea ilisha (*Ham. Buch.*). Not found in the Santal Parganas, but in the big eastern rivers.

Jiọl,[5] a certain fish, having spines on the sides of the head.

Kakṛa hako, a certain fish found in rivers.

Kal bagus,[6] Labeo calbasu (*Ham. Buch.*). (Also called simply *bagus*, or *kal bokos*.)

Kara ghakor, a certain fish (found in Manbhum).

Kãṛã, lit. blind, has very small eyes, Glyptothorax botia (*Ham. Buch.*).

Katla, Catla buchanani (*Ham. Buch.*), very large, kept in tanks. The fry are annually brought from the Ganges or other large rivers.

Koṭro hako, a certain fish (found in Manbhum).

Kucla[7] (also *kucila* and *khucila*), an eel-like fish.

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[1] Also in Bengali.—*Ed.*

[2] Also in Bengali.—*Ed.*

[3] Also in Bengali.—*Ed.*

[4] Also in Bengali.—*Ed.*

[5] Also in Bengali.—*Ed.*

[6] Compare Käl Baus in Bengali.—*Ed.*

[7] Compare Künche in Bengali.—*Ed*

Liṇḍa, Garra lamta (*Ham. Buch.*). Also called *pathor caṭa*. Considered excellent food.

Liṭuṛ, a certain eel-like fish, Amphipnous cuchia (*Ham. Buch.*).

Maṭkom hako, lit. the Mahua fish, Gobius giuris (*Ham. Buch.*).

Maṭ sakam hako, v. sub *dũṛĩ*.

Maṅgri, a certain fish, Clarias batrachus (*L.*). It has no scales and is kept in tanks.

Miṛik, a certain fish; kept in tanks.

Paṅgas[1] *hako* (also called *paṅgas boaṛ*), a certain fish found in eastern rivers. Considered bad for sick persons.

Poṭea gaṛaṛi, a fairly common kind of fish.

Poṭha hako, the same as *puṭhi hako*, when grown to a certain size. Also called *buḍhi puṭhi*.

Puṭhi[2] *hako*, Barbus stigma (*Cuv. & Val.*); small, often found in rice-fields. Also called *kaṭiċ puṭhi*.

Ragho boaṛ, v. sub *boaṛ*.

Rẽṛẽṭ hako, a certain fish, Macrones tengara (*Ham. Buch.*). Considered excellent food. They have thorn-like barbs on their back and head, the sting of which is considered poisonous.

Ruhi (also called *rui*[3]), Labeo rohita (*Ham. Buch.*); one of the best kinds for eating. Kept in tanks.

Siṅghin hako,[4] a species of fish, so called on account of its spines. Not found in the Santal Parganas.

Sirhoċ hako, a certain fish, said to be so called, because its head reminds one of the head of the *sirhoċ* bird.

Siṛiṅ hako, a certain fish without scales. Said to be very savoury.

Sisiṅ hako, a certain fish, Amblyceps mangois (*Ham. Buch.*). Certain filaments on the head are said to be poisonous.

Siṭka boaṛ, v. sub *boaṛ*.

Sol,[5] Ophiocephalus striatus (*Bloch.*).

Soroċ, a short, thick and round fish, Barilius bendelisis, var. cocsa (*Ham. Buch.*). Considered excellent food.

Su[6] (or *sũh*), a dolphin, Platanista gangeticas (*Lebeck*). Said to be so named from sound like *su*, heard when they rise to the surface.

Tale hako, Anabas scandens (*Daldorf*). Said to be so named from a belief that during rain they will mount a *tale* (Borassus flabelliformis).

Teṅgra,[7] Macrones vittatus (*Bloch.*).

Tirom hako, a certain fish.

Fishing.

As it is of ethnological interest, something may be related of how the Santals catch fish. Like hunting the catching of fish is said to be one of the real joys of the people.

[1] Also in Bengali.—*Ed.*

[2] Same in Bengali.—*Ed.*

[3] Same in Bengali.—*Ed.*

[4] Compare 'Singhi' in Bengali.—*Ed.*

[5] Same in Bengali.—*Ed.*

[6] Compare 'Sisuk' in Bengali.—*Ed.*

[7] Same in Bengali.—*Ed.*

A man may naturally go alone to angle, but this is very rare and likely of fairly recent introduction, as it is only of late years that they have been able to get serviceable fish-hooks. As a rule a number of men go together to a spot where they know that there are fish. If one or several of the party have no rights to the surrounding land, they will always have to come to an arrangement beforehand with the owner, but this does not apply to the big rivers. To catch the fish they employ different kinds of nets.[1]

At certain times the Santals hold a kind of public fishing festival, in which the whole neighbourhood, and anyone wishing to do so, participates. It is quite a social event. In such cases even the women may be seen accompanying the men. The women will naturally not enter into the deep water, but standing on or moving along the edge they will try to catch what they can with their hands. They apparently enjoy the fun.

The headman of the village, inside the boundaries of which the fishing is to be, makes a public announcement that on such and such a day there will be a public catching of fish. If believed necessary, they make sacrifices to the *bongas* (spirits) to remove possible impediments. They use their nets or hands to catch the fish. All fish caught are collected in the nets (in the *bukạ*), the big fish being cut into pieces. When the fishing is over, they collect half of the big fish from every net. This portion is for the people of the village. They divide this half into three portions; one portion for the owner of the place, the two other portions for the village people.

If the public fishing is held in a river, the village headman of the boundary gets his one portion; but if the place is within the boundaries of two villages this portion is divided into two equal parts, and the two village headmen each get one of these parts. The remaining two portions are divided among the people of the two villages.

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[1] The following are the nets used (called *jal* [Same in Bengali.—*Ed.*] or *jhạli*) by the Santals: *Cạbhi jal* (or *jhạli*), shaped like a spoon-net, but has no handle. The wide circular opening is fixed to a ring of bamboo, and to this ring four pieces of bamboo or other suitable saplings are fixed tent-like and joined together above. The user takes hold of the thin end of the net (called *bukạ*, lit. navel), that is not tied. When he thinks there are fish to be caught, he carefully presses the net down, so that the bamboo ring is firmly pressed against the ground. Letting go of the *bukạ* he feels for the fish with his hand and takes them out. This kind of net is used in the larger rivers and in what is called *ahar*, low rice-fields that have a small dammed up rivulet.

Gạnạri, small round net, like a hand-net, with or without a handle.

Gitoc jal, a net up to 10 m. long and 1 m. broad with floats; only used in still water. Very rare amongst the Santals.

Hunḍạ jal, the most common fishing net of the Santals. It is made like a big bag, tapering towards the centre, and the *bukạ* is long and narrow. It is fixed to three poles which give it a triangular form. One of the poles protrudes and serves as a handle. When using it the man, keeping the *bukạ* in his hand, presses one side down and moves it along the ground. Any fish caught are kept in the *bukạ*, until the fishing is over.

Lebḍa jal, a casting-net, fairly common and used in shallow water. It has a wide circular form, tapering, with a long cord fixed at the top. At the border it has weights of iron or anything suitable fixed so as to make the net sink quickly. Practice and skill are needed to use this effectively.

Or jal, made of thick string with large meshes. It has weights of iron or stones at the bottom and floats (wood or straw-bundles) at the top. It is 3 to 4 m. deep and very long. It is used in large tanks, being dragged along the bottom to catch fish that are otherwise difficult to get. Very rare amongst the Santals.

Rạñki jal (or *janalọm*), a very large net, consisting of a netting fixed to four poles, some 3 to 5 m. long, and tied together so as to form a square. To each corner a rope is tied. Four men are needed to work this. Standing one on each corner they press the frame down to the bottom. After a short while they raise the frame by pulling the ropes. If any fish are brought up in the net, they kill them with a stick. It is used in water some five feet deep. It is rare amongst the Santals, and not found in all districts.

The Santals also have a way of catching fish by poisoning. They obtain noxious substances from the forest, crush them and throw them into the water. The fish are drugged thereby, float to the surface and are caught. The substances most commonly used for this purpose are the following: The roots of *kita*, Phœnix acaulis *Roxb.*; the fruit of *corco*, Casearia tomentosa *Roxb.*; *jiọli*, a grass growing in rice-fields and moist places; the bark of *kumbir*, Careya arborea *Roxb.*; the fruit of *loṭọ*, Randia dumetorum, *Lam.*; and the bark of a tree called *saḳri phọl*. This poisoning can only be done in still water (in tanks, pools and certain parts of rivers).

Another very common way of catching fish, especially the smaller kinds, is by using a *ṭọrọḍañ*, a weir-basket, a kind of fish trap. The *ṭọrọḍañ* is made of wicker-work, either circular or oval, and up to some 80 cm. long. The lower end is tightly closed. Water will run through, but no fish can pass. The 'mouth' is broad and furnished with 'teeth' to prevent the fish from getting out again. The *ṭọrọḍañ* is placed in running water where there is a narrow passage. It may be set in a river, but more commonly in an opening in the lower ridge of a rice-field. Here it is usually employed towards the end of the rainy season. Small fish may frequently be seen in the water of the rice-fields, and when the water is led out through the gap, the fish are carried along and fall into this trap. Practically every Santal uses this. A Santal makes something like the real *ṭọrọḍañ*, except that it is of straw, for his children to play with. It might be added that the name of the material from which they make the *ṭọrọḍañ* is generally combined with this word, thus *icaḳ ṭọrọḍañ*, when made of the twigs of *icaḳ*, Woodfordia floribunda *Salisb.*, *mal ṭọrọḍañ*, when it is made of split bamboo, *tale ṭọrọḍañ*, when made of the leaves of *tale*, Borassus flabelliformis *L.*, and so on.

Smoking and drinking.

In connexion with the hygiene of the Santals smoking and drinking must be mentioned for they play an important part in the lives of the people, especially of the men.

Santals may smoke tobacco. Their national way of smoking is to take a dried tobacco leaf or part of one and make it into a kind of cheroot by wrapping a Sal-leaf round the tobacco and then smoking it like a cigarette. This way of smoking is not very common. The writer has, in quite recent times, seen Santal girls smoking modern machine-made cigarettes.

The use of the hookah is rare; but some Santals have adopted it from the Hindus. The hookah used by the Santals never has any flexible tube attached to it. It is made from a cocoa-nut shell, or the emptied kernel of the Palmyra palm, with a wooden stem attached, on top of which is the *cilim*,[1] the earthen bowl in which the tobacco and the fire are placed. The tobacco used in the hookah is generally mixed with some other substance. The *cilim* is frequently used alone, removed from the hookah-stem, the lower empty end of it being put to the mouth. The Santal name for smoking is *ñũ*, to drink.

[1] Same in Hindi.—*Ed.*

The manner in which tobacco is most commonly enjoyed by the Santals is, however, by chewing [1] it. As this is a social custom of considerable importance among the men, it must be fully described. Pieces of a dried tobacco leaf are mixed with mussel-lime. Holding this in the palm of the left hand they pound it with the thumb of the right hand into a solid mass. When ready a pinch is given to each one present who puts it into his mouth and commences to chew it. It is kept in the mouth until the tobacco can no longer be tasted, (this is said to take one to two hours), then it is spat out. This chewing does not hinder speech, but on the contrary, gives them an excuse for conversation. If two Santals meet, even though they do not know each other, and one of them wants to have a talk, he will ask the other for tobacco. If the other one says he has nothing, he will himself offer it. In this way all kinds of conversation are started and kept up. Nearly every Santal man carries pieces of a tobacco leaf and some lime with him. This lime is burnt from mussel or snail shells. The shells are put in a small bundle together with chips of wood, bark, etc., and wrapped up with a straw-rope, like a small *bandi* (paddy-bundle). This is placed in a crate of branches. A rope is tied in one end, and after having set fire to the chips the man takes the rope and commences to swing the bundle round himself to keep it burning. This operation is continued until no more smoke is seen, when the lime is considered to be ready. This task is usually performed in the evenings. Sometimes they make a bundle too large to be swung in this manner. In that case they suspend it by a long rope from a tree and swing it to keep the fire burning by pulling a cord attached to the bundle. A Santal carries this lime with him in a small receptacle, made of brass or some other metal, or in the kernel of certain fruits, tied to his loin-string. Otherwise it is stored in the house.

A few Santals have commenced to cultivate tobacco, but as a rule, the dried leaves are bought in the shops.[2]

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[1] This practice is also common among the Hindus of Bihar.—*Ed.*

[2] They have a folktale about the origin of tobacco. It is as follows:

"In olden times, it is said, there was a Brahmin girl who did not get a husband, and died an old unmarried woman. They say that no one applied to marry her, and no one was willing to become a *house-son-in-law either* [means a son-in-law who lives in the home of his bride and is maintained by her family. A common practice with richmen in former times who did not like to send their daughters to their husbands' houses when they were not well off. A term of contempt.—*Ed.*].

Then Chando (a name for the Supreme Being, also for the sun) said: 'Strange, I sent this person into the world and no one was pleased with her. Very well, I shall give this person a blessing, in order that people of the whole world may ask for her all day long'.

Now, truth to tell, they cremated this girl by a river. When this was done, all the village men went back home from the river. Next day, they say, Chando sowed tobacco where they had put the ashes into the water. Tobacco sprang up, grew big and produced very fine leaves.

Now a Mahra (a Goalla, a man of the Hindu cow-keeping caste) was in the habit of daily herding his cattle there. While he was tending his cattle, he saw these leaves. They looked very fine, and he said: 'I wonder what plant has grown up here?' It was very wonderful in his eyes.

One day he saw some goats eagerly eating these leaves, and he drove them away; but the goats came there again to eat. The Mahra then said: 'I wonder why these goats find these leaves so good to eat'. With this thought he tore off a piece of a leaf and chewed it to taste it for himself. He found it bitter and spat it out.

A few days afterwards the Mahra had a toothache. He applied some medicine, but it would not stop. He had intense pain. Then he remembered that the leaves of this newly found plant were very bitter and he said to himself: 'I will try chewing these leaves'. And thinking this he tore off a leaf. Having chewed it into a mass he stuffed it into his mouth and kept it on the spot where the pain was. The pain at once stopped, and he said: 'Wonderful, this is an ex-

Pan,[1] the leaf of Piper Betle *L.*, mixed with lime and certain spices, so commonly chewed by Hindus, is very rare among the Santals. It is bought from Hindus.

Santals do not smoke opium.

Gañja,[2] the hemp plant, Cannabis sativa *Willd.*, is on the other hand used by a few who have learnt to smoke it from other races. The plant is secretly cultivated by some few people. The leaves of the male plant and the flowers of the female plant are dried and mixed with tobacco for smoking, but only very rarely by Santals. The ojhas may teach their disciples to smoke *gañja*, when they are to be 'possessed'.

Now let us consider what the Santals drink, apart from what has already been mentioned among the foodstuffs. The Santals have no wines. To buy them would be more than any ordinary Santal could afford.

Liquor, *paura*, as they call it, is used by some. When Santals take to using this, they soon become addicted to it, and become spoilt and unfit for ordinary work. The liquor is distilled from dried Mahua flowers. It is illegal for Santals to distil *paura*, and is now but rarely done in very primitive apparatus. So far as the writer can remember, he has only once seen what they use, and this was something confiscated by the police.

What may be called the national intoxicating drink of the Santals is their *haṇḍi*, beer, brewed from cereals, rice or other grain. They distinguish a dozen different kinds, in accordance with the name of the cereal used, putting the name of the grain in front of *haṇḍi*, such as *horo haṇḍi*, beer brewed on rice, *janhẹ haṇḍi*, beer brewed on *janhẹ*, a millet, Paspalum scrobiculatum *L.*, and so on. They use besides nearly fifty other prefixes in accordance with the social or festival events, when beer has to be used. It may be noted that Santals drink, not to enjoy the taste, but to become more or less intoxicated, so as to forget the troubles of this world. The Christian

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cellent medicine'. After that he always had a leaf of this plant with him when he was herding his cattle. Whenever he felt any pain, he chewed this and kept it in his mouth.

Then one day, it is told, he found some bones that had been burnt to ashes there, or perhaps it was some limestone that had been burnt to ashes. When he saw this, he said: 'I wonder, what this white stuff is'. He picked some up and crushed it between his fingers, and taking this and tearing off a piece of the tobacco leaf he chewed them together and felt them very enjoyable. Afterwards he became so accustomed to eating tobacco with lime that he was unable to give this up.

When anyone has a toothache they crush a tobacco leaf, place it in the mouth where the pain is, and the pain ceases. And from that time, they say, other people also became accustomed to chewing tobacco and lime. The Santals call this tobacco *thamakur* (Hindi *tamākū*).

Thus very many people adopted this habit. Even people who have no toothache feel an intense longing for it, if they do not chew. 'In this way', they say, 'people have learnt to chew tobacco, and as is seen, also now we are chewing. Our ancestors have told this; whether it is true or not, we cannot say. We have learnt it from our forefathers."

The Santals have generally excellent teeth. It should be mentioned that what in the above story has been translated by toothache, is in Santali expressed by *reñgoṭ jom*, lit. a kind of microbe, called *reñgoṭ*, eating the teeth. They believe that there are two kinds, one that eats holes in the teeth and another kind that causes the pain. The ojhas pretend to be able to get the *reñgoṭ* out by smoke. When blowing the smoke into the mouth of the sufferer, the ojha uses the hollow stem of a plant and if some small particle of this become detached, he will point to them and tell the spectators, that he can see the *reñgoṭ*!

[1] Bengali Pân.—*Ed.*

[2] Bengali Gânja.—*Ed.*

missions have, for this reason, been obliged to prohibit the use of Santal beer, and Santals now frequently use tea in its stead.

As beer plays such a prominent part in Santal life, we shall describe how they brew *haṇḍi*. This has already been related in a note to one of the Santal Folktales, edited by the Norwegian Institute for sammenlignende kulturforskning, and is repeated here.

When a Santal is going to brew beer, his first act is to prepare the pot in which the beer is to be manufactured. Any earthenware pot with a fairly large mouth will do; they generally use what they call *ṭukuć* or *haṇḍha*. The pot is filled with dry leaves, straw, etc., and this is set fire to in the morning of the day when they are going to start brewing. It takes some hours before everything is burnt. The pot is generally placed a short distance away from the house, as there is much smoke. When the pot has cooled down, the ashes are taken out, and the brewing ingredients are put in. This is all got ready in the afternoon. They take rice boiled in the husks and afterwards husked (what they ordinarily use for their food, and not the sun-dried rice) and roast this a little. This roasting is said to impart a certain flavour to the beer. The rice is then boiled and afterwards spread out to dry. The quantity of rice used depends on the number of people for whom the beer is being made. It varies from four to six *paï* [1] (half-seers), or it may be as much as ten *paï*, and the quantity will also naturally depend to a certain extent on the economic state of the house. The *paï* is very nearly equal to half a kilogram.

When the rice is fairly dry, it is mixed with *raṇu*, a vegetable fermenting substance, which is rolled and ground. *Raṇu* ordinarily consists of some four or five different vegetable products. Generally it is bought in the market prepared in small white balls, although most Santals know how to prepare it. As the primary object of the Santal in drinking beer is to get drunk, certain vegetable poisons are frequently added to the *raṇu* to make the beer intoxicating. When a number of deaths had occurred after drinking beer, the writer was once asked by the Subdivisional Officer, Dumka, what ingredients the Santals had used. On investigation it was found that twenty-three different vegetable substances had been utilized. These were naturally not all used at one time, but only one or two were added to the fermenting medicine for the purpose mentioned. People of the *Suṇḍi* [2] caste, who manufacture and sell beer in the Santal country, make special use of these poisons, to make their clients drunk in a short space of time. When a Santal is drunk he continues to drink, and the proprietor of the place is said to give him practically nothing but water in the last cups sold. It has several times happened that people who have been to such shops and have become drunk have died from the effects of these poisons on their way home.

When the rice and the *raṇu* have been properly mixed, all is put into the brewing pot, prepared as described above, generally in the evening. The boiled rice has swollen, so that the pot will be fairly full. The contents of the pot are covered with a leaf-plate

[1] Compare 'Poah' in Bengali.—*Ed.*

[2] In Bengal also people belonging to Sundi caste manufacture and sell wine.—*Ed.*

pressed down on the rice. Another leaf-plate is placed on the mouth of the pot, and a *ḍhąknič*,[1] an earthenware lid, or a small cooking vessel is put on top, to keep it all intact. There is now nothing more to be done for some days, and the brewing pot is put aside in some place where people do not ordinarily go, commonly in the *bhitar*,[2] the closet for the worship of the ancestors. As it must not tumble over the pot is placed on a *biṇḍi*,[3] a ring of straw used as a stand for round-bottomed vessels.

The rice takes some five days to ferment (*isin*, as it is called, the word that is ordinarily used for the act of cooking). When the fermentation is complete it can be heard outside the pot. There is an exudation from the rice (called *jhar*), which looks like brown water. This is ladled out with a leaf-spoon, and is said to be the most intoxicating part of the beer. It is generally drunk mixed with a little water and it may be kept, they say, up to one month, before it goes bad. As a rule it is quickly consumed.

To obtain the real beer hot water is poured on to the rice from which the *jhar* has been extracted. During fermentation the rice contracts a little. If insufficient hot water is available, cold water may be added, until the pot is full. The beer when ready looks like milk-water, a little brownish in colour. It has a peculiar acid-sweet smell. Any one who has drunk a little may be detected by the smell, a considerable distance away.

Before drinking, libations are made to *Maraṅ buru*, the principal national godling of the Santals, possibly, because he belongs to the ancestors. (The Santal traditions tell that our first parents lived holy and happy lives until one day a being came to them, saying he was their grandfather. He was pleased to see them so happy, he said, but there was one joy that they did not know. He then taught them to brew beer, showed them the vegetable poisons they should use to make it good, and made them drink. They became drunk and fell into sin, i.e., had sexual intercourse. This 'grandfather' is the same as *Maraṅ buru*). They also offer libations to the ancestors, to each, one after the other, so far as they are known. This is done by pouring a little beer onto the floor inside the house (but not in the *bhitar*) for each ancestor.

They take a broom, made from the straw of *sirom* (Andropogon muricatus *Retz.*) that has not been used to sweep the floor, consequently generally a new one or one specially kept for this purpose, and place it in the mouth of the pot with the broom portion downwards, so as to prevent the rice from coming out when the pot is tilted to let the beer run out.

The beer is poured out into brass-cups, with rims (these make it easy to pour from the cup). If there are enough cups, they drink from these; otherwise the beer is poured out from the brass-cups into leaf-cups. Of such they have one kind called *hąṇḍi phuṛuk*, beer leaf-cup. As the name implies, this is specially intended for drinking beer, but also used for any other household purpose for which it is suitable. This leaf-cup is made from one Sal (Shorea robusta *Gærtns*) leaf. Both ends are plaited, once on each side of the midrib, which is covered by the plaits, the plaits being kept

[1] Compare 'Dhākni' in Bengali.—*Ed.*

[2] 'Bhitar' in Bengali means 'inside', inner part of the house, etc.—*Ed.*

[3] Compare 'Biṇḍa' or 'Biṇḍé' in Bengali.—*Ed.*

in position by a pin of stiff straw, a thorn, or the like. Filled up to just below the holes made by the pins at each end such a cup will take about two to four ounces of fluid. It should be mentioned that the beer is stirred with a wooden ladle before being poured out. The leaf-cups are filled over and over again. It is said that it will take some twenty of these cups to make a person drunk.

When the first 'edition' is finished, fresh hot water is again poured on the rice. This is called *doja haṇḍi*, second brew beer. It is, of course, not so strong as the first *taṅ haṇḍi*, poured out beer, as it is called (*taṅ* means to pour out by tilting the container). For the second brew the pot is not filled to the brim.

The same rice may generally also serve for a third brew, called *boḍoć haṇḍi*, lit. squeezed out beer. The rice is taken out of the pot and put into a *paṭia*, a small basket made of bamboo. A little water is poured on, and the rice is squeezed with the hand. Another way is to put the rice inside paddy-straw, a hole being left at the top for the purpose of putting the right hand in. Water is then poured on, and the rice squeezed. The 'beer' that trickles down is caught in a cup and drunk.

The rice, or rather the refuse, is given to pigs to eat. If they eat too much, they get drunk, it is said.

As remarked above, the Santals drink beer to become drunk. No description is needed of a drinking bout. According to what has been told to the writer, they pass through all the stages, some becoming hilarious, others melancholy, some scold and become abusive, others sing and tell stories; some become vile, lascivious and pugnacious, others moral, amiable, religious, and so on. The avowed object is to be able to forget for a few hours the miseries of this world and feel like kings, as they put it. Drunkenness is one of the great obstacles to Santal development.

The above description refers to the manufacture of beer from rice. It is manufactured in the same way from *janhę* and other cereals that are husked. It is also manufactured from maize and *bajra* (Sorghum vulgare *Pers.*) in the same manner, only omitting the roasting at the start.

It might further be remarked that they prepare a kind of beer from *matkom*, the dried flowers of Bassia latifolia *Roxb.* These are steeped for three days in water, that is then strained, *ranu* is added to the water, and is allowed to stand for five days, when it becomes thoroughly fermented and is then ready to be drunk. This 'beer' is called *duhli*, not *haṇḍi*.

The beer has to be 'watered' and drunk when fermentation is complete. They say that the fermented grain may be allowed to stay for one day and then have the water poured on. If it is left longer, it turns very sour and is unfit for use.

One might well say that *haṇḍi* is absolutely essential at all social functions amongst the Santals.

Santals may occasionally drink *tari*, a kind of toddy, the fermented juice taken from the Palmyra or Date palms. The peduncles of the *tale*, the Palmyra palm, Borassus flabelliformis *L.*, are cut before flowering. The freely running sap is collected in pots and kept until fermented, when it is drunk. This *tari* is prepared during the hot season. The *tari* of the Date palm (*khijur*, Phœnix sylvestris *Roxb.*) is obtained

during the cold seasons. The sap is extracted from the tree near the top after having removed a couple of leaves. It is prepared in the same way as the *taṛi* of the Palmyra palm. As mentioned, *taṛi* is only occasionally drunk by the Santals.

Santal clothing.

In an account like this of Santal life some mention of their clothing must find a place.

The Santals cultivate sundry varieties of the cotton plant, especially Gossypium herbaceum *L.* and Gossypium arboreum *L.* When ripe the fruit is collected and the seeds cleaned out (generally done by women) in a *caṛkhi*,[1] an instrument that has two wooden rollers between which the cotton is made to pass, the seeds being extracted by the pressure of the rollers. The ginned cotton is called *tulam*.[2] This is teased with a bow of peculiar shape, made of bamboo. The portion held in the hand is whole, whilst the upper portion is split and bent into a shape which resembles a mark of interrogation. The string is of catgut and 'played' with the thumb and index finger of the left hand. The cotton is afterwards spun into thread on a spinning wheel. To prepare for the weaving, a man fixes a number of sticks, always two and two together, in a sufficiently long row along a path or a straight border, and runs the thread on these sticks. The thread is cut, rolled up on a piece of wood, and finally arranged as the warp through a comb. The Santals have no permanent ready-made looms, these are always makeshift arrangements. Poles are fixed in the ground. On these the different working parts are hung, and the weaver (invariably a man) sits on the ground with his legs in a hole dug out for the purpose. With his feet he works the heddles from the hole. Only cotton cloth is woven by the Santals.

It should be noted that whilst formerly it was a fairly common sight to see men weaving cloth, it is now very rarely that one sees a Santal occupied in this way. Nowadays the Santals mostly buy what they use, partly from the local weavers, especially from the Mohammedan Jolhas,[3] partly from the Hindu Tantis (from these especially certain silk cloths), and partly, and now much more frequently, from the shops. In Assam they buy a kind of rough, strong silk cloth from the local Meches, or Boros, as they prefer to be called.

Santal children wear no clothing for the first few years. At the name-giving festival just after the birth of a child the 'midwife' ties a thread that has been soaked in turmeric round the waist of the child. This remains on the child as long as possible and is then replaced by a fresh one. A girl continues to wear this loin-string (called *ḍora*) until she commences to wear clothes. After that time girls and women only occasionally use a *ḍora*. With males it is otherwise, they always wear a loin-string. There are several kinds, named after the pattern or the makers. A *ḍora* generally has a knot at one end, called *ḍora boṛhoṛ*, lit. loin-string head, and at the other end a loop, called *ḍora gaṛi*, lit. loin-string noose, which is easily fixed. Besides its use in

[1] Compare Çarkhā in Bengali and Hindi.—*Ed.*

[2] Tulā means cotton in Bengali and Hindi.—*Ed.*

[3] Usually the term Jolha is applied to Moslem weavers in Bengal as against the term Tānti to Hindus.—*Ed.*

connexion with male clothing the *ḍora* is of help in carrying articles that can be tied to it with a string. The ordinary Santal attire has no pockets.

The first piece of clothing that a boy puts on is the *bhagwa*, a strip of cloth just sufficient to cover the private parts. It is passed between the thighs and tucked into the loin-string in front and behind. Also grown-up men may wear a *bhagwa*. This is some three cubits long and up to one cubit broad (the Santal cubit is the distance from the elbow to the tip of the middle finger and may consequently vary a little in accordance with the size of the person; it is used here as a translation of the Santal *moka*). It is very commonly the only piece of clothing that men wear when out ploughing or doing earth-work that might soil the clothes. It is also used as a bathing costume. Curious to relate the writer once met on the highroad the reputed wealthiest Santal of that part of the Santal country his only attire being a *bhagwa*, a bit of cloth round his head, and a pair of native shoes. Parsimony shows itself in similar ways everywhere.

Very poor men use what is called a *kupni*, really the same as a *bhagwa*, only smaller, two cubits long and half-a-cubit broad.

The regular male attire consists of a loin-cloth and something wherewith to cover the upper part of the body. A common name for the several kinds of loin-cloth is *ḍeṅga* (or *ḍeṅganak*) with a word prefixed to show what kind it is. The oldest form is probably what is called *kaca ḍeṅga* of merely *kaca*.[1] It is a piece of cloth that is taken round the loins, passed between the legs and tucked in behind. For a grown-up man the regular size is a cloth five cubits long and one cubit broad. Formerly the Santals wove this cloth themselves. Nowadays they generally buy what they need from the shops, the loin-cloths being both longer and broader, and often dress somewhat like the Bengalis, so far as this part of the body is concerned. This loin-cloth is generally called *dhuti*. Especially well-to-do Santals use this kind.

To cover the breast and shoulders they have a piece of cloth, called *pichauṛi*, some five cubits long and three cubits broad, two or three pieces being sewn together, the number of pieces depending on the original breadth of the cloth used. Sometimes even four pieces are sewn together, in which case it is called *baṛki*. *Cadar*[2] is a name also applied to the overcloth; but this word is considered foreign. This cloth is wrapped round the body as a protection against cold, and it is also worn at social and festive gatherings. It may also be used as a covering at night by both sexes. When at work, and when it is hot weather, the men generally wear nothing above the waist.

It should, however, be noted, that present-day Santals have very commonly taken to wearing jackets, which are almost invariably white. A few Santals may be able to make them but as a rule they are bought in the bazars. Boys and young men may also be seen in khaki-coloured shorts, which are apparently much appreciated.

A Santal man will occasionally wear a long narrow piece of cloth on the head as a protection against the sun. A turban is not essential part of a Santal man's dress. When attending Hindu festivals young men may adorn themselves with large wheel-like turbans. A turban is a ceremonial form of headdress in connexion with betrothal

[1] Same in Bengali.—*Ed.*

[2] Same in Bengali.—*Ed.*

and marriage. The relatives of the bride go to the bridegroom's home and put a turban on him. At the marriage ceremony, before the *sindraḍan*[1] (the application of sindur on the bride's forehead by the bridegroom, the binding ceremony) the bridegroom puts what is called *sara ḍaḥṛi* on the head of the younger brother of the bride (or the one who represents him). It is yellow, having been soaked in turmeric. The bridegroom himself and his *lumti* (best man) wear a peculiar kind of turban during the ceremony. It has part of its cloth pulled out and twisted so that it stands up like a peak. The Santal use of a turban may point towards its Hindu origin.

The Santals generally go barefoot. Some may occasionally be seen wearing a very heavy kind of shoe when fording a river, or when walking along a sun-burnt road, and so on.

They have quite a number of different shaped clogs or wooden sandals called *badha*.[2] These all have a wooden sole, flat on the top and cut on the underside to form a wooden 'heel' at the back and something similar in front. These are kept on the foot with the help of strings. A very common form has a toe peg of metal or wood in front, the peg being narrow at the bottom and having something resembling a small wheel at the top. When in use this peg fits between the big and the second toes. These clogs can naturally not be used for walking any distance. The Santals use them during the rainy season to avoid trampling in mud with their bare feet; when moving about at night, to avoid treading on thorns and stones that cannot be seen; and also to avoid treading on snakes and to frighten these away by the noise that the clogs make. They have some ten different shapes of *badha*, besides the *ṭheṅga badha*, stilts, that are used to wade through deep mud. These are made much like ordinary stilts, but when the Santals use them, they put their feet along the piece of flat wood that is fixed in a hole in the pole and keep this between the big and the second toes.

We shall now describe how Santal women are dressed.

When a Santal girl commences to wear clothes—i.e., when she is between three and six years old, she puts on what is called a *putli*, a piece of cloth about two cubits long and one cubit broad. It is tied round the waist, the upper edge ends being tucked together. When the child begins to run about, it is now quite common to see a smaller *putli* being worn. When about eight years old, the girl wears what is called a *paṅci*, a cloth one and a half cubits broad and four to six cubits long. This cloth is put on like the *putli*.

When a girl approaches maturity she wears a piece of breast-cloth. The end of this is fixed on both sides in the *paṅci*, or *paṛhāṇḍ*, as this 'skirt' is called, and then taken up over the left shoulder and fixed in the *paṛhāṇḍ* behind. This breast-cloth is called *gogoḳ* or *gonoḳ*. It may be used by women at any time, more especially during the rainy season when they work in the fields. Poor women will often clothe themselves in this way daily, for obvious reasons.

The ordinary full dress of a Santal woman is a piece of cloth, commonly called a *khaṇḍi*. This is a locally woven (mostly by the Mohammedan Jolhas) rough kind

[1] Compare 'Sindurdān' in Bengali.—*Ed.*

[2] In Bengali it is called Khaṛam.—*Ed.*

of cotton cloth, white, generally with a red border. Up to about a generation ago it was two cubits broad and twelve cubits long, the length being the same as what *Pilcu Buḍhi*, the first human mother, measured round her waist, according to Santal lore. Nowadays this length is not considered necessary; it may be only nine or ten cubits long. This is considered ample. The breadth is the same, two cubits.

The cloth is put on in the following manner:—The woman pleats the cloth at one end, and taking the cloth round her waist passes it firmly over the pleated part on her left side and tucks in the upper side of the cloth, just beyond where the pleats are, the ends of these rising just above the upper border of the cloth. In this case the pleated end is taken round the back of the waist. The rest of the cloth is then taken back across the front, one edge being fastened on the right side of the 'skirt' so formed, and then taken up over the breast and the right shoulder, the end of the cloth hanging down the back, loose or tucked in at the waist. This is called *gogoḱ* or *gonoḱ bande*. *Bande* is the name for a cloth worn by a woman. Another method is to take the cloth, after having tied the 'skirt', up over the back to the right shoulder, then to take it down over the breast to the right side and tuck the end of the cloth into the 'skirt' on both sides. This procedure is called *gogoḱ japaḱ bande*.

Besides the *khaṇḍi* mentioned any suitable cloth of the requisite size may be used. One special kind may be mentioned. It is called *doal*, woven by the local Jolhas. The *doal* is twelve cubits long and two cubits broad. Both warp and weft are of double thread. It has red and white stripes in pairs across the entire length, and broad red borders. At each end there are broad red stripes across the cloth. It is now comparatively rare. On the occasion of his marriage the bridegroom must give such a cloth to the mother of his bride. Nowadays, however, money is more commonly given instead.

Cotton cloth, bought in a shop, is now very often used.

Against cold and for coverings at night the women use the same kind of overcloth as the men. A good many women now use a kind of jacket or blouse. This is naturally due to European influence. It should be noted that Santal women are not by custom obliged to keep their heads covered, they go bare-headed, except when required by custom or necessity to wear a headdress.

The position of the Santal women is very different from that of the women among the neighbouring Hindus and Mohammedans. Theoretically the Santal woman is inferior to man. She may not have landed property, must not be present at religious sacrifices, and so on; but as often as not she rules the house, the household and the family, and when she is the wife of the headman, the whole village.

The man naturally represents the family outwardly. He is the tenant of the landlord (only recently have the settlement people recorded certain females as tenants). The man is the head of the family and is expected to do everything in connexion with money-lenders, and so on. Men alone prepare the different agricultural fields, make them ready for the plough, sow all kinds of seed, and (except the planting of rice, that is solely the work of women), they may do everything in connexion with growing crops, but may be assisted by the women folk. They prepare the threshing

floor and do the threshing, they also do everything connected with the storing of the seed. To quote the words of the old Kolean guru, 'From the month of Phalgun to the end of Baisak (i.e., from the middle of February to the middle of May) is "sitting time" (there is no agricultural work). During this time the men make implements for their own use and gather provisions for the household. They make plough-beams and yokes, ploughs and clod-crushers, earth-shovels and cart-wheels, cart-shafts and -axles, neck-ropes and yoke-leather-thongs, hide-straps and ropes, spinning-wheels and cotton-cleaning machines, handles for the spades and pick-axes, axes and adzes, bedstead-legs and frames, stools and wooden slabs to sit on, wooden ladles and spoons, bows and arrows, flutes, wooden pestles and mortars and weaving implements; they weave cloth and string bedsteads and they bring firewood and wood for the house, and they repair the house'. The men build the houses and thatch them.

As already stated, Santal women are deemed inferior to men. There is certain work that they must not do, whilst on the other hand there are many kinds of work that the women must do, because the men would consider these tasks *infra dig.* The Santals say that the women are constantly working, and this is more or less true. They get up at cock-crow (about 4 A.M.), clean and put the house in order, throw the dung out of the cowshed, fetch water, pound grain (a woman always works the mortar, but a man may tread the *ḍhiṅki*) and prepare the food. (It should, however, be noted that, if there is any special feast, the men may act as cooks.) The women pull out the paddy-seedlings (often assisted by men) and plant the rice, cut it when ripe (in this often assisted by men), and hoe the maize (also assisted by men). They pull out the cotton plants and clean the cotton and make thread for the men to weave. They make leaf-cups and leaf-plates. They plaster the floor and the walls and make all smooth, especially when the rainy season rain has caused damage. The women folk never singly but always in a body gather leaves and small firewood from the forest, and vegetables. They never take part in hunting, but may do so in fishing. The women do not partake of food along with the men. They serve the men and children first, and when they have fed, the women sit down to eat.

Conclusion.

In conclusion the following effusion of a Santal may be quoted. 'We Santals pass our life in much hardship, because we have no means of earning our livelihood other than by ploughing. We may wish to trade and do business, but we are unable to use the language of the other races properly, and it is with them that we must trade. For this reason we are unable to enter into commerce. Besides, mostly due to foolishness and laziness, indolence and slothfulness, we have no wish to work and to learn any real craft, and we have no time for anything. On the other hand, we are always eager and always find the needed leisure for dancing and attending festivals. At such times we say: "Who knows whether I shall die or live, I must go and meet the people of the country". Saying this we at once turn our back on any work and run off to attend a festival. A few of us have realized that all this is due to laziness, and that it is in this way that we Santals have become so poor.

From olden times our ancestors have said and we also now say, that five months of the year are extremely difficult. From the month of Chait until San (i.e., from the middle of March until the middle of August) we name it "the hunger period". In villages where they have Mahua they are fairly well off for one or two months; but for three or four months we exist with great difficulty. The cultivation of rice is mainly for the benefit of the Hindu money-lenders; these people rob us of everything.'

What the Santal said is a fairly correct synopsis of the attitude of a great many of the Santal people. It takes a long time to change a nomad race to one of settled agriculturists. Something is being done to help the people, but much more is sadly needed.

Vol. III

(Miscellaneous)

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