

## FRANCIS BUCHANAN

# JOURNEY FROM MADRAS THROUGH THE COUNTRIES OF MYSORE, CANARA, AND MALABAR

**VOLUME II** 

1

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## JOURNEY FROM MADRAS

THROUGH THE COUNTRIES OF

# MYSORE, CANARA, AND MALABAR,

THE MOST NOBLE THE MARQUIS WELLESLEY,
GOVERNOR GENERAL OF INDIA,

FOR THE EXPRESS PURPOSE OF INVESTIGATING THE STATE OF

AGRICULTURE, ARTS, AND COMMERCE; THE RELIGION, MANNERS, AND CUSTOMS; THE HISTORY NATURAL AND CIVIL, AND ANTIQUITIES,

IN THE DOMINIONS OF

## THE RAJAH OF MYSORE,

AND THE COUNTRIES ACQUIRED BY

THE HONOURABLE EAST INDIA COMPANY, IN THE LATE AND FORMER WARS, FROM TIPPOO SULTAUN.

## BY FRANCIS BUCHANAN, M. D.

FELLOW OF THE ROYAL SOCIETY, AND OF THE SOCIETY OF ANTIQUARIES OF LONDON;
FELLOW OF THE ASIATIC SOCIETY OF CALCUTTA; AND IN THE MEDICAL SERVICE
OF THE HONOURABLE COMPANY ON THE BENGAL ESTABLISHMENT.

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      15, for Minimos, read Minimoo.
106
      15, for roduces, read produces.
117
       4, for none, read some.
155
      22, for Madura, read Muduru.
171
      12, for Coliagala, read Coleagala.
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228
       4, for Bahuani, read Bhawani.
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      17, for Pelon, read Pelou.
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      22, for Malaya, read Malayala.
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      18, for In, read An.
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355, &c. in the Calendar of Malayala, for Tamul months,
          read Malabar months.
       6, for Vir Pato, read Vir Patom.
368
      22, for one-twenty-first, read a one-and-twentieth.
370
      20, and 25, for Kirum, read Kiriim.
408
      10, for Trimbucum, read Irimbucum.
436
      13, for 5 Fanams, read 50 Fanams.
445
453
       3, for land, read bond.
      27,
491
      12, 16, 17, 18, 30. for Pariar and Parian, read 5, Parriar and Parrian.
493
494
      last,
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# JOURNEY FROM MADRAS, &c.

## CHAPTER

#### FROM SIRA TO SERINGAPATAM.

UGUST 7th, 1800.—Having been informed, that in the woods CHAPTER to the north and north-east of Sira many cattle are bred, and that in the hills to the eastward much steel is made, I determined August 7. to take a short journey in these directions, although it was in some measure retracing my steps. For the cattle, Pauguda and Niddygul are the principal places; there being twelve large herds in the one district, and ten in the other. These places, however, being much out of my way, I determined to proceed to Madigheshy, where, I was told, there were several herds. In the morning I went five cosses to Chandra-giri, or Moon-hill, which is a poor village at the foot of a high rock east from Badavana-hully. Of course, I had before travelled the greater part of the road. In the neighbourhood of Chandra-giri are some fine betel-nut gardens. Formerly these Betel-nut amounted to five Candacas of land, or 150 acres. In the time of a dreadful famine, which happened about thirty-six years ago, these gardens suffered much, owing to the wells having become dry; for they are all watered by the machine called Capily. They suffered still more owing to the desertion of their proprietors, on account

Vol. II. В August 7.

CHAPTER of the assessment which was imposed by Tippoo, to enable him to pay the contribution which Lord Cornwallis exacted. now reduced to about 45 acres, or  $1\frac{1}{2}$  Candaca.

State of the country.

The tank here ought to water 6 Candacas of land, or 180 acres; but, from being out of repair, it at present supplies one sixth part only of that extent. The farmers here allege, that in the last twenty years they have had only one season in which there was as much rain as they wanted. In this district of Madhu-giri some of the villages want  $\frac{1}{4}$ , some  $\frac{1}{2}$ , and some  $\frac{1}{2}$  of the cultivators which would be necessary to labour their arable lands, and some have been totally deserted.

August 8.

8th August.—I went three cosses to Madigheshy. Part of the road lay in the country ceded to the Nizam, who in the neighbourhood of Ratna-giri has got an insulated district, in the same manner as the Raja of Mysore has one round Pauguda. The whole country through which I passed was laid waste by the Marattah army under Purseram Bhow; and as yet has recovered very little. In the Nizam's territory the villages were totally deserted. The greater part of the country is now covered with low trees, but much of it is fit for cultivation. On my arrival at Madigheshy, I was not a little disappointed on being told by the civil officers, that in the whole district there was not a single cow kept for breeding; and that the only cattle in the place were a few cows to give the village people milk, and the oxen necessary for agriculture.

Madigheshy.

Madigheshy is a fortress situated on a rock of very difficult access, and garrisoned by a few Company's seapoys; in order, I suppose, to prevent any of the ruffians in the Nizam's country from seizing on it, and rendering it a strong-hold to protect them in their robberies. At the foot of the hill is a well fortified town, which was said to contain 100 houses; but that account was evidently greatly under-rated. In it were 12 houses of farmers, and twenty of Bráhmans, who, except two officers of government, were all supported by the contributions of the industrious part of the community; for

Tippoo had entirely resumed the extensive charity lands which they CHAPTER formerly possessed. Their houses were, however, by far the best in the town, and occupied, as usual, the most distinguished quarter. August 8. The place is now dependent on Madhu-giri; but during the former government was the residence of an Asoph, or lord-lieutenant. His house, which is dignified with the title of a Mahal, or palace, is a very mean place indeed. The Mussulman Sirdars under Tippoo were too uncertain of their property to lay out much on buildings; and every thing that they acquired was in general immediately expended on dress, equipage, and amusement.

The place originally belonged to a Polygar family; a lady of which, named Madigheshy, having burned herself with her husband's corpse, her name was given to the town; for, above the Ghats, this practice, so far as I can learn, has been always very rare, and consequently gave the individuals who suffered a greater reputation than where it is constantly used. Madigheshy was afterwards governed by Ránís, or princesses, of the same family with the heroine from whom it derived its name. From them it was conquered by the family of Chicuppa Gauda, who retained it long after the Polygars of Mysore had deprived them of their original possessions, Madhu-giri and Chin'-náráyan'-durga. During the invasion of Lord Cornwallis, a descendant of Chicuppa Gauda came into this country; and, when he found that the place must return to the Sultan's dominion, he cruelly plundered it of the little that had escaped Marattah rapacity. He did not leave the place, which is extremely strong, till Commur ud' Deen Khan came into the neighbourhood with a considerable force.

In the vicinity there is very little cultivation; owing, as the Want of natives say, to the want of rain. The late Sultan three years ago expended 700 Pagodas (about 230 L) in repairing a tank, that ought to water 8 Candacas, or 240 acres of rice-land: but in no year since has the rain filled it, so as to water more than what sows two Candacas. The wells here are too deep for the use of the machine called Capily.

4

VII.

August 9.
Fears of the natives.

9th August.—The native officer commanding the scapoys in the fort having informed me that I was deceived concerning the herds of breeding cattle, and the village officers being called, he gave such particular information where the herds were, that it became impossible for them to be any longer concealed. The people, in excuse for themselves, said, they were afraid that I had come to take away their cattle for the use of Colonel Wellesley's army, then in the field against Dundia; and, although they had no fear about the payment, yet they could not be accessory to the crime of giving up oxen to slaughter. In the morning I took the village officers with me, and visited some of the herds; but the whole people in the place were in such agitation, that I could little depend on the truth of the accounts which they gave; and I do not copy what they said, as I had an opportunity soon after of getting more satisfactory information.

Appearance of the country.

The country round *Madigheshy* is full of little hills, and is overgrown with copse wood. The villages of the *Goalas*, or cowkeepers, are scattered about in the woods, and surrounded by a little cultivation of dry-field. The want of water is every where severely felt, and the poor people live chiefly on *Horse-gram*, their *Ragy* having failed. In many places the soil seems capable of admitting the cultivation to be much extended.

Quarries.

Near the town is a fine quarry, of a stone which, like that found at Ráma-giri, may be called a granitic porphyry.

Here also may be easily quarried fine masses of gray granite.

August 10: Appearance of the country. 10th August.—In the morning I went three cosses to Madhu-giri. The road led through pretty vallies, surrounded by detached rocky hills. These vallies showed marks of having once been in a great measure cultivated, and contained the ruinous villages of their former inhabitants. Ever since the devastation committed by Purseram Bhow, and the subsequent famine, they have been nearly waste; and many of the fields are overgrown with young trees. A few wretched inhabitants remain, and a few fields are cultivated;

and it is said, that this year greater progress would have been made CHAPTER toward the recovery of the country, had not the season been remarkably dry and unfavourable.

August 10.

On my arrival at Mudhu-giri, and questioning Trimula Náyaka Breeding on the subject, I found, that every town and village in this hilly country had herds of breeding cattle. One of the herds I had met on the road; but they were so fierce, that, without protection from the keepers, it would have been unsafe to approach them. I determined, therefore, to remain a day at Madhu-giri and examine the particulars.

11th August.—I went with Trimula Nayaka, and examined three August 11. herds of breeding cows, one of them chiefly his own property. From him, and from some of the most sensible Goalas, I afterwards took the following account.

In this country the Cadu Goalas, or Goalaru, are those who breed Goalas, or cattle. Their families live in small villages near the skirts of the cow keepers. woods, where they cultivate a little ground, and keep some of their cattle, selling in the towns the produce of the dairy. Their families are very numerous, seven or eight young men in each being common. Two or three of these attend the flocks in the woods, while the remainder cultivate their fields, and supply the towns with firewood, and with straw for thatch. Some of them also hire themselves to the farmers as servants. They are a very dirty people, much worse than even the generality of the people of Karnáta; for they wear no cloathing but a blanket, and generally sleep among the cattle; which, joined to a warm climate, and rare ablutions, with vermin, itch, ring-worms, and other cutaneous disorders, render them very offensive.

In criminal matters relating to cast, the Goalas are under the jurisdiction of a renter, who in the language of Karnáta is called Beny Charadi, or in the Mussulman dialect Musca Charadi, which signifies the head of the butter-office. He resides at the capital, and pays to government an annual revenue. He goes to every village where any August 11.

CHAPTER regular families of Goalas are established, and from each levies the tax which they pay to government for liberty to pasture their flocks on its property. In this neighbourhood, every family, whether it consists of many persons or of few, or whether it be rich or poor, pays the same tax; which is indeed a mere trifle, being only six Fanams, or about 4s. a year. For this small sum they are exempted from any tax or rent for grass, and may feed their cattle in whatever woods they please. In some villages there is often only one family of privileged Goalas, in others there are two. If a family change its place of abode, it must always pay its tax, and also certain dues owing to the temples, at its original village. The same happens to the individuals of a family, which sometimes may occupy ten houses; the whole of them, wherever settled, must send their share of the tax to the head of the family. The head man of the family is generally the eldest son of the last man who held the office; but in case of his being incapable, from stupidity, of transacting business, the Beny Chavadi appoints an acting chief, or Ijyamána. There are some Goalas, who are not privileged, nor under the authority of the Beny Chavadi, who in proportion to the extent of their flocks pay a rent for the grass to the Gydda Cavila, or keeper of the forest. This also is very moderate; 100 cows paying annually five Fanams, or 3s. 4d.

> The Ijyamanas, or hereditary chiefs of Goala families, settle all disputes; but the Beny Chavadi punishes all transgressions against the rules of cast. When the flocks of any family have perished, either by war or pestilence, the sufferers go and solicit a new stock from the other persons of the cast, each of whom will give a beast or two for that purpose. Should they be so unreasonable as to refuse this bounty, the Beny Chavadi will compel them to assist their distressed neighbours.

> There are a great many different races of Goalas, with whom the Cadu Goalas neither eat nor intermarry. These last are a tribe of Karnáta; and persons, who consider themselves as of any rank,

marry into such families only, with the purity of whose origin they CHAPTER are well acquainted; for in this tribe there is a very numerous race of Cutigás, or bastards. Widows who prefer disgrace to celibacy, and women who commit adultery, connect themselves with the bastard race, who also keep Hadras, or concubines; a practice that is not permitted to Goalas of a pure descent. These, however, may keep as many wives as they please. A woman who is incontinent with a man of any other east, is inevitably excommunicated. adultery has been committed with a Goala, she will be received as a Cutiga; and both the man who seduced her, and her husband, are fined in twelve Fanams, or about 8s. The Goalas are not permitted to drink spirituous liquors, nor to eat fish, or hogs; but they may eat sheep, goats, deer, and fowls. They bury the dead, and have no knowledge of a future life, except believing that those who die unmarried will become Virigas, whom they worship in the usual manner. The gods peculiar to their cast are, Jinjuppa and Ramuppa. The Brahmans say, that the former is the same with Lechmana, the younger brother of Ráma; but of this the Goalas are ignorant. These poor people have a small temple, containing two shapeless stones; one of which they call Jinjuppa, and the other Ramuppa. The Pujári, or priest, is a Goala, whose office is hereditary; but who intermarries with the laity. Sacrifices are not offered to these idols; they are worshipped by offerings of fruit, flowers, and the like. There is a forest called Gyddada Mutráya, to which the Goalas repair, and sacrifice animals to Mutráya, who is represented by the first stone which the votaries find in a convenient place. On this occasion there is a great feast; and any Dáséri (religious mendicant) that attends obtains the head of the sacrifice, and some bread. They sacrifice also to the goddess Marima. Some of the Cadu Goalas take the vow of Dáséri; but none of them can either read or write. Their Guru is a Sri Vaishnavam Bráhman; but they neither know his name nor where he lives. He comes once in two or three years, admonishes them to wear the mark of Vishnu, and gives them holy

August 11.

August 11.

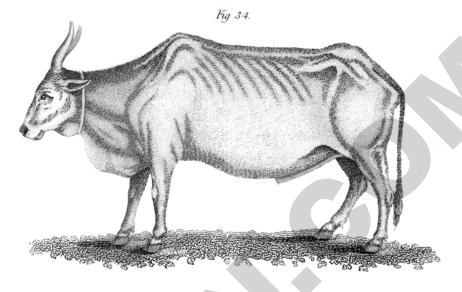
CHAPTER water. Each person presents him with a Fanam; and, if he happen to be present at a marriage, he gets a measure of rice. Although these people call their Guru a Bráhman, it is more probable that he is a Vaishnavam or Satánana; for the Panchánga, or astrologer of the village, does not act as Purchita at any of their ceremonies, and they are not a tribe that can claim to be of Sudra origin.

Oxen of the Zebu kind.

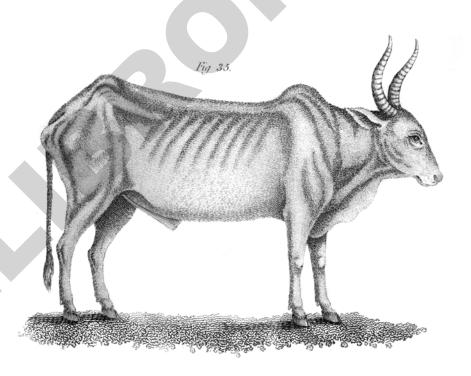
The race of oxen in this country may be readily distinguished from the European species, by the same marks that distinguish all the cattle of India; namely, by a hump on the back between the shoulders, by a deep undulated dewlap, and by the remarkable declivity of the os sacrum. But the cattle of the south are easily distinguished from those of Bengal by the position of the horns. In those of Bengál the horns project forward, and form a considerable angle with the forehead; whereas in those of the south the horns are placed nearly in the same line with the os frontis. In this breed also, the prepuce is remarkably large; and vestiges of this organ are often visible in females; but this is not a constant mark.

Of this southern species there are several breeds of very different qualities. Plates XIII. XIV. and XV. contain sketches of some of them. Above the Ghats, however, two breeds are most prevalent. The one is a small, gentle, brown, or black animal: the females are kept in the villages for giving milk, and the oxen are those chiefly employed in the plough; their short, thick make enabling them to labour easily in the small rice-plots, which are often but a few yards in length. This breed seems to owe its degeneracy to a want of proper buils. As each person in the village keeps only two or three cows for supplying his own family with milk, it is not an object with any one to keep a proper bull; and as the males are not emasculated until three years old, and are not kept separate from the cows, these are impregnated without any attention to improvement, or even to prevent degeneracy. Wealthy farmers, however, who are anxious to improve their stock, send some cows to be kept in the folds of the large kind, and to breed from good bulls. The cows

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MADRAS OX.

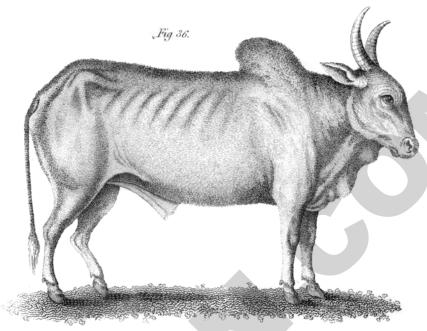


Madhu-giri Ox.

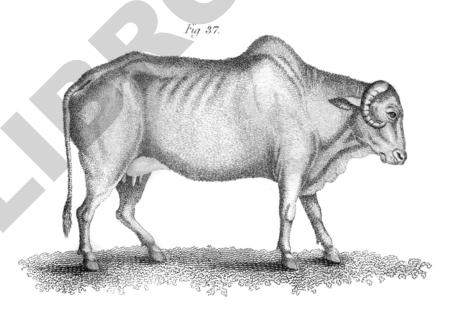
Warner sc.



 $Vol. II.p. \delta.$  PLATE XIV.



MADHU-GRI BULL.

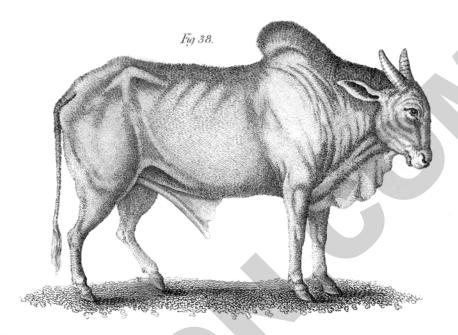


MADHU-GIRI COW.

Warner sc.

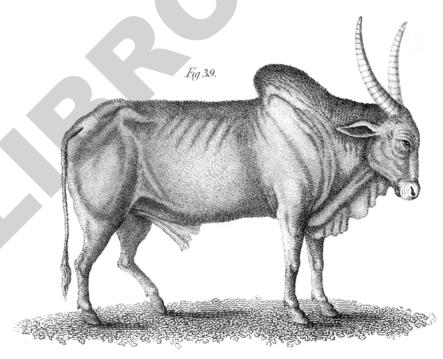


 $Vol. \Pi. p. 8.$  PLATE XV.



## SERINGAPATAM BULL

from the late Sultan's herd.



SERINGAPATAM OX.

Warner sc.



sprung from these always remain at the fold, and in the third gene- CHAPTER ration lose all marks of their parents degeneracy. The males are brought home for labour, especially in drawing water by the Capily; August 11. and about every village may be perceived all kinds of intermediate mongrels between the two breeds.

In the morning the village cows are milked, and are then collected in a body, on the outside of the wall, with all the buffaloes and oxen that are not employed in labour. About eight or nine in the morning the village herdsman, attended by some boys or girls, drives them to the pasture. If the flock exceeds 120, two herdsmen must be kept, and their herds go in different directions. The pastures are such waste lands as are not more than two miles distant from the village, and are in general poor; the tufts of grass are but thinly scattered, and the bare soil occupies the greater space. This grass, however, seems to be of a very nourishing quality, and the most common species is the Andropogon Martini of Dr. Roxburgh's manuscripts. At noon, and at four o'clock, they are driven to water, to raise which the Capily is often employed. At sun-set they are brought home; and in the rainy season the cowhouse is smoked, to keep away the flies. In the back yard of every house stands a large earthen pot, in which the water used for boiling the grain consumed by the family is collected; and to this are added the remains of curdled milk, of puddings, and a little flour, oil-cake, or cotton seed. This water becomes very sour, and is given as a drink to the cows in the evening, when they are again milked. At night, in the rainy season, the cattle get cut grass, which is collected in the woods, and about road sides: this last is the most nutritious, the very succulent roots being cut up with the leaves, and the situation preventing the harsh stems from growing. In dry weather, the cattle at night have straw. Those who can afford it, chiefly Bráhmans, give their milch-cows cotton-seed and Avaray. The working cattle ought to have Horse-gram. After the

August 11.

CHAPTER milk for the family has been taken, the calves are allowed to suck; and unless they be present, as is usual with all the Indian race of cattle, the cows will give no milk. The cows here go nine months with calf, begin to breed at three years of age, and continue until 15 years old. They breed once a year, but give milk for six months only. A good cow of the village kind gives twice a day from four to six Cucha Seers, or from about 21 to 34 pints ale measure.

> The cattle of the other breed are very fierce to strangers, and nobody can approach the herd with safety, unless he be surrounded by Goalas, to whom they are very tractable; and the whole herd follows, like dogs, the man who conducts it to pasture. The bulls and cows of this breed never enter a house; but at night are shut up in folds, which are strongly fortified with thorny bushes, to defend the cattle from tigers. At 5 years old the oxen are sold, and continue to labour for twelve years. Being very long in the body, and capable of travelling far on little nourishment, the merchants purchase all the best for carriage. To break in one of them requires three months labour, and many of them continue always very unruly. The bulls and cows were so restless, that, even with the assistance of the Goalas, I could not get them measured; but the dimensions of a middle sized ox were as follow: From the nose to the root of the horn, 21 inches. From the root of the horn to the highest part of the hump, 30 inches. From the height of the hump to the projecting part of the ossa ischia, 45 inches. From the hump to the ground 46 inches. From the top of the hip-bones to the ground 51 inches.

> The cows of this breed are pure white; but the bulls have generally an admixture of black on the neck and hind quarters. These cattle are more subject to the disease than the cattle living in villages; and once in three years an epidemic generally prevails among them. It is reckoned severe when one-third of a man's stock perishes, although sometimes the whole is lost; but in general, as all

the cows are reserved for breeding, the loss occasioned by one CHAPTER epidemic is made up before another comes.

VII.

These cattle are entirely managed by Goalas; and some of these August 11. people have a considerable property of this kind: but the greater part of these breeding flocks belong to the rich inhabitants of towns or villages, who hire the Goalas to take care of them; and, for the advantage of better bulls, send to the fold all their spare cows of the village breed. In procuring bulls of a good kind, some expense is incurred: for the price given for them is from 10 to 20 Pagodas (31. 7s. 1d. to 61. 14s. 2d.), while from 8 to 15 Pagodas is the price of an ox of this kind. Care is taken to emasculate all the young males that are not intended for breeding, before they can injure

the flock.

The Goalas live in huts near the small villages, in parts of the country that contain much uncultivated land, and are surrounded by the folds, in which they always keep as many cattle as will cultivate a little land, and as the pasture near the place will maintain. But as local failures of rain frequently occasion a want of forage near their huts, some of the men drive their flocks to other places where the season has been more favourable, and either take up their abode near the huts of some other Goalas, giving them the dung of their fold for the trouble which they occasion, or live in the midst of woods, in places where the small reservoirs, called Cuttays, have been formed to supply their cattle with water. All the breeding and young cattle, with all the sheep and goats, are carried on these expeditions; but a few labouring cattle and the buffaloes are left at home in charge of the women, and of the men who can be spared from accompanying the flocks. During the whole time that they are absent the Goalas never sleep in a hut; but, wrapped up in their blankets, and accompanied by their dogs, they lie down among the cattle within the folds, where all night they burn fires to keep away the tigers. This however is not always sufficient, and these ferocious animals sometimes break through the fence, and

August 11.

CHAPTER kill or wound the cattle. The men have no fire-arms, the report of which would terrify the cattle; and for driving away the tiger, they trust to the noise which they and their dogs make. They are also much distressed by robbers, who kill or carry away the sheep and goats; but unless it be a numerous rabble that call themselves the army of a Polygar, no thieves can annoy their black cattle; for these are too unruly to be driven by any persons but their keepers, and the most hardened villain would not dare to slaughter an animal of this sacred species.

> Exclusive of the buffaloes, which are managed as I have described at Seringapatam, the cattle of the Goulus have nothing to eat, except what they pick up in the wastes. The cows and sheep eat grass, and the goats the leaves of every kind of tree, bush, or climber, those of the Periploca emetica W: excepted. Each kind of cattle must have a separate fold. From this, when at a distance from home, they are driven out at sun-rise, as then the calves get all the milk, except a little used by the herdsmen; but near the village the cows are milked every morning; and this operation, which is performed by the men, takes up two hours. From each about two Seers, or 1½ pint, only are taken. They are indeed miserably lean, and at twenty yards distance their ribs may be distinctly counted. The cattle are once a day conducted to the water; and the calves, after they are a month old, follow their mothers to pasture: before that they remain in the fold, under the charge of the man who cooks.

> When a rich man sends a flock of a hundred cows under the care of the Goalas, he allows wages for two men, each of whom has annually 60 Fanums, with a blanket and pair of shoes; in all, worth about 21. 5s. 1d.; and when they come on business to their master's house, they get their victuals. For grass he pays also five Fanams a year to the keeper of the forest. These (3s. 4d.) with the two men's wages, making in all 4l. 13s. 2d. are the whole of his annual expence. The profits, when no disaster happens, will be: for Ghee,

or boiled butter, 8 Pagodas; for sour curds, butter-milk, &c. CHAPTER 4 Pagodas; for 20 three-year-old bullocks 60 Pagodas; in all 72 Pagodas, or 720 Fanams, or 241. 3s. 6d.: from this deduct the expense, August 11. and there will remain 191. 10s. as the gain upon the original stock, which may be estimated at 150 Pagodas for the 100 cows, and 30 Pagedas for the two bulls; in all, 1300 Fanams, or 431. 13s. which is almost 45 per cent. annually on the original value of the stock.

The Goalas keep many Curis, and Maykays, or sheep and goats. Sheep and These always accompany them in their expeditions; and even those goats. who are servants to the rich men generally carry with them flocks of sheep and goats, or are accompanied by some men possessed of that stock; so that less than four men never go together. sheep are more subject to the disease than the cows, and the goats still more so than the sheep. A flock of a hundred small cattle requires the attendance of two men, and two dogs; and these have more profit from their own small herd, than the men who serve the rich to take care of cows. This they acknowledge themselves; yet they will only allow the profits of the 100 goats to amount to 100 Fanams a year; that is to say, 80 Fanams for 30 three-year-old males, and 20 Fanams for boiled butter. They eat the old females, and give the keeper of the forest two males for every hundred, in order to obtain his permission to cut the trees, that the goats may procure leaves.

A Goala, that is reckoned rich, will have 200 cows, 30 female Stock of the buffaloes, 50 ewes, and 100 she goats; and will keep as many labouring oxen as will work three ploughs. Such a man, Trimula Náyaka says, besides paying rent, and finding his family in provisions, will annually make 100 Pagodas, or 33 l. 10 s. 10 d. clothing, being a blanket, costs a mere trifle; and part of the money he expends in the marriages of the younger branches of the family, and in religious ceremonies; the remainder is in general buried, and a great deal of money is in this way lost; as when the men get

VII. August 11.

Stock of

farmers.

CHAPTER old, and stupid, they forget where their treasures are hidden, and sometimes die without divulging the secret.

> The farmers also keep small flocks of goats and sheep, which are sent, under the charge of a boy, to the pastures near the village. In the evening they are brought home; when the goats are taken into the house, and the sheep are folded on the field of their proprietor.

Management of the milk.

The cattle in this country, as I have already mentioned, are milked by the men, who carry the produce home to the women; for they prepare the butter. The milk, on its arrival, is immediately boiled for at least one hour; but two or three hours are reckoned better. The earthen pots, in which this is done, are in general so nasty, that after this operation no part of the produce of the dairy is tolerable to an European; and whatever they use, their own servants must prepare. The natives never use raw milk, alleging that it has no flavour. The boiled milk, that the family has not used, is allowed to cool in the same vessel; and a little of the former days Tyre, or curdled milk, is added to promote its coagulation, and the acid fermentation. Next morning it has become Tyre, or coagulated acid milk. From the top of each potful, five or six inches of the Tyre are taken, and put into an earthen jar, where it is churned by turning round in it a split Bamboo. is done very expertly by a rope, which, like that of a turner's lathe, is passed two or three times round the Bamboo, and a quick motion in contrary directions is given by pulling first one end of the rope, and then the other. After half an hour's churning, some hot water is added, and the operation is repeated for about half an hour more; when the butter forms. The natives never use butter; but prefer, what is called Ghee, not only as that keeps better, but also as it has more taste and smell. In order to collect a quantity sufficient for making Ghee, the butter is often kept two or three days; and in that time a warm climate renders it highly rancid. When a sufficient quantity has been collected, it is melted in an earthen pot,

and boiled until all the water mixed with the butter has evaporated. CHAPTER It is then taken from the fire; and, for what reason I could not learn, a little Tyre and salt, or Betel-leaf and reddle, are added. It August 11. is kept in pots, has a very strong smell, and is best preserved from spoiling by a little tamarind and salt, which at any rate enter into the dishes of all the natives that can afford to use Ghee. It is eaten when even a year old. Three Pucka Scers, or 252 Rupees weight of buffaloes milk, give 100 Rupees weight of Ghee; the same quantity of cow and buffalo milk mixed, as usual, give 80 Rupees weight; cow milk alone gives 60 Rupees weight, and goat milk only 40 Rupees weight.

12th August.—Having been informed, that Chin'-narayan'-durga August 12. was distant three cosses, I ordered my tents to be pitched at that Appearance of the counplace; but on coming up, I found that the distance was only one coss. try. In this country, it is indeed very difficult to get any accurate information concerning routes and distances. The road leads through a very narrow rugged valley, capable of very little cultivation. It is situated in the highest part of the country, the water from its north end running into the northern Pinákaní, while the Cávéri receives the torrent flowing from its southern extremity. Chin'náráyan'-durga, by its situation, is a strong place, and is garrisoned by the troops of the Mysore Rája. It is greatly inferior in appearance to Madhu-giri, although it is said to have been the favourite residence of Chicuppa Gauda. The town is the Kasba, or capital of a district, but is very poor. Nothing can be rougher than the neighbouring country, which at first sight appears a mass of rocks and bare hills thrown confusedly together; but on a nearer inspection, many fertile spots are observed.

In the neighbouring woods is found abundance of the Popli bark, Popli bark. which I have frequently mentioned as a dye, and as an article of export. It is the bark of the root of a large scandent plant, which climbs to the top of the highest trees. I saw neither flower nor fruit, so can say nothing of its botanical affinities; and the specimens

August 13.

CHAPTER of the stem and leaves were not known to Dr. Roxburgh. collected by some Baydarus, who are in the service of the Gydda Cavila, or keeper of the forest.

Appearance of the country.

13th August.—I went three cosses to Tavina Caray, in company with the Amildar, who seems to be a very industrious man. He says, that last year he brought 200 ploughs into his district, and that 200 more would be required for its full cultivation. Near Chin'-nardyan'-durga the country, for the most part, consists of a rugged valley surrounded by hills; but the fields between the rocks were formerly cleared, and well cultivated, and are said to be very favourable for Ragy, the rock enabling the soil to retain moisture. Among these rugged spots we visited some irou and steel forges, which had indeed induced me to come this way. The information procured on this subject, is as follows.

Iron mines.

Iron is smelted in various places of the following Talucs, or districts; Madhu-giri, Chin'-narayan'-durga, Hagalawadi, and Dévaraya-durga. In the first two districts the iron is chiefly made from the black-sand which the small torrents formed in the rainy season bring down from the rocks. In the two latter districts, it is made from an ore called here Cany Callu, which is found on the hill Kindalay Guda, near Muga-Nayakana-Cotay in the Hagalawadi district. A little of the same iron ore is also procured from a hill, called Kaymutty, near Muso-conda in the district of Chica-Nayakana-Hully.

The manuer of smelting the iron ore, and rendering it fit for the use of the blacksmith, is the same here as near Mayadi. The people belonging to the smelting-house are four bellows-men, three men who make charcoal, and three women and one man who collect and wash the sand. They work only during the four months in which the sand is to be found; and for the remainder of the year they cultivate the ground, or supply the inhabitants of towns with fire-wood. The four men relieve each other at the bellows; but the most skilful person takes out the iron and builds up the furnace;

on which account his allowance is greater. In each furnace the workman puts first a basket (about half a bushel) of charcoal. He then takes up as much of the black sand as he can lift with both his hands joined, and puts in double that quantity. He next puts in another basket of charcoal, and the fire is urged with the bellows. When the first charcoal that has been given burns down, he puts in the same quantity of sand, and one basket of charcoal; and does this again, so soon as the furnace will receive a farther supply. The whole quantity of sand put in at one smelting measures 617 cubical inches, and weighs, when dry, about  $42\frac{1}{2}$ lb. avoirdupois. This gives a mass of iron, which, when forged, makes 11 wedges, each intended to make a ploughshare, and weighing fully  $1\frac{2}{100}$  lb. The workmen here, therefore, procure from the ore about 47 per cent. of malleable iron; but, as usual in India, their iron is very impure.

In the forging-house are required 3 hammer-men, one man to manage the forceps, 2 bellows-men, and 4 men to supply charcoal, which for this purpose is always made of the Bamboo. Every day three furnaces are smelted, and 33 wedges forged. The workmen are always paid by a division of the produce of their labour; and every fourth day, or when 132 pieces have been prepared, the division is made as follows.

To the propr	ietor	•	-	-	-	-	Pieces. 35
To the Panch		is the	fore-man	at the	e forge	•	10
To the fore-r	nan at th	e smel	ting-hou	se	-	-	8
To one of the	bellows-r	nen, w	ho remov	es the	ashes an	d dross	5
To two of the	e women,	who w	ash the s	and, at	5 each	•	10
To the remai	ning 16 p	persons	s, at 4 ea	ch	-	-	64
						,	132

The Panchála, or black-smith, out of his wages, is bound to find all the iron instruments, such as the anvil, the hammers, and the forceps. The proprietor defrays all other expenses; and these are,

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CHAPTER
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August 13.

							Faname.
To the keeper of the	forest, fo	r permi	ission	to m	ake cl	harcoa	l 100
To the Gauda, or c	hi <mark>ef of t</mark> h	e villa	ge, fo	r lea	ve to	gather	r
iron sand -	•	•		•	•	-	40
To ditto for furnace	e rent	-	•		-	•	15
To the Sunca, or co	llector of	custor	ns	-	•	-	30
To a pair of bellows	for the s	melting	z-hous	se			42
To ditto for the for	ge	•	•		-	-	24
To sacrifices	-	-		-		•	15
To charity for the Bráhmans					•		10
						<i>Fanam</i>	s 276

The buildings are so mean that they go for nothing; and at the beginning of the season are put up by the workmen in the course of a day.

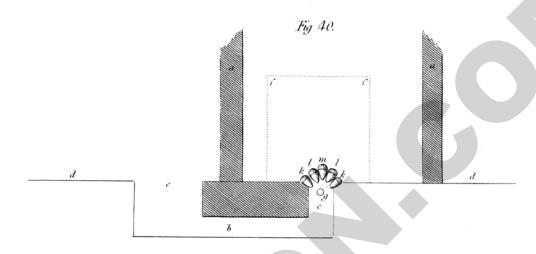
Relative value of the two ores. The stone-ore is made into iron exactly in the same manner; the quantity put into the furnace, and the produce, being nearly the same. The iron from the stone ore is reckoned better for all the purposes to which malleable iron is applied, but it sells lower than the iron made from the sand; for this last is the only kind that can be made into steel. The stone-iron sells at 6 pieces for the Fanam; and the people who work it are paid by daily wages. The wedges that it forms are larger than those of the sand iron, and weigh from 3 to 4 Seers each; so that this iron costs about 6s. 10d. a hundred-weight. The iron made from the sand sells at four pieces for the Fanam, or about 10s. 4d. a hundred-weight, the pieces weighing, according to estimate, only three Seers. I am inclined, however, to think, that on an average they weigh at least a tenth part more; but it would be difficult to ascertain this, as the pieces differ considerably in size, and are never sold by weight.

Error in the foregoing account.

It must be evident, that in this account the head-man, wishing to conceal his profit, deceived us. For thirty dividends can only take place in the course of four months; and, each dividend giving

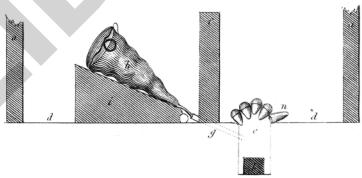


Section of a steel furnace in the direction of the Ush-pit.



Section of a steel furnace at right angles to the Ash-pit.

Fig 41.



him 35 wedges of iron, he will receive in all 1050 pieces, which, at CHAPTER the usual price, are worth only 262½ Fanams; so that in the course of the year, his expenses being 276 Fanams, he would lose 13½ Fa- August 13. nams, while the lowest workman gets monthly 7½ Fanams, or about 5s. which is more than is earned by the common labourers of the country. The point in which I think he attempted to deceive was in the number of days that the people wrought. If they smelted every day in the year, his profits would be very great; but allowing for many interruptions, owing to the avocations of agriculture, and to occasional deficiencies of sand, we may safely suppose that the forge is employed 6 months in the year; and then the profits of the proprietor will be about 100 Fanams, which is nearly in the same proportion to his stock, as the gains of the breeder of cattle are to his property. At this rate, the quantity smelted in each set of works, taking my estimate of the weight of each piece, will be about 106 hundred-weight; and the 19 forges, stated in the public accompts to be in this district, and that of Madhu-giri, will yearly produce about 100 tons of iron, worth nearly 1000 l.

For making steel, there are in this vicinity five forges; four in Steel. this district, and one in Déva-Ráya-Durga. To enable the workmen to give them a supply, the merchants frequently make advances; for almost the whole is exported. It is used for making stonecutters-chisels, sword-blades, and the strings of musical instruments. The furnace (see Plate XVI. Fig. 40, 41.) is constructed in a hut (a); and consists of a horizontal ash-pit (b), and a vertical fire-place (c), both sunk below the level of the ground (d). The ash-pit is about  $\frac{3}{4}$  of a cubit in width and height, and conducts from the lower part of the fire-place to the outer side of the hut, where it ends in a square pit (e), in which a man can sit, and with a proper instrument draw out the ashes. The fire-place is a circular pit, a cubit in diameter, and descends from the surface of the ground to the bottom of the ash-pit, being in all two cubits deep. Its mouth is a little dilated. Parallel to the ash-pit, and at a little distance from the

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CHAPTER mouth of the fire-place, in order to keep the workman from the sparks and the glare of the fire, is erected a mud wall (f) about five feet high. Through the bottom of this passes an earthen tube (g) which conducts into the fire-place the wind of two bellows (h). The bellows are as usual supported on a bank of earth (i), and consist each of a bullock's hide; they are wrought, as in other places of this country, by the workman passing his arm through a leather ring.

> The crucibles are made, in a conical form, of unbaked clay, and each would contain about a pint of water. In each is put one third part of a wedge of iron, with three Rupees weight (331 grains) of the stem of the Tayngada or Cassia auriculata, and two green leaves of the Huginay, which is no doubt a Convolvulus, or an Ipomea with a large smooth leaf; but never having seen the flower, I could not in such a difficult class of plants attempt to ascertain the species. The mouth of the crucible is then covered with a round cap of unbaked clay, and the junction is well luted. The crucibles, thus loaded, are well dried near the fire, and are then fit for the furnace. A row of them (k) is first laid round the sloping mouth of the fireplace; then within these another row is placed (1); and the center of this kind of arch is occupied by a single crucible (m), which makes in all fifteen. That crucible in the outer row (k) which occupies the place opposite to the muzzle of the bellows, is then taken out, and in its stead is placed horizontally an empty crucible (n). This the workman, who manages the fire, can draw out when he pleases, and throw fewel into the fire-place. The fuel used is charcoal prepared from any kind of tree that grows in the country, except the Ficus Bengalensis, and the Chloroxylon Dupada of my manuscripts. The fire-place being filled with charcoal, and the arch of crucibles being covered with the same fewel, the bellows are plied for four hours; when the operation is completed. A new arch is then constructed, and the work goes on night and day; five sets, of 14 crucibles each, being every day converted into steel. the crucibles are opened, the steel is found melted into a button,

with evident marks on its superior surface of a tendency to crystallization; which shows clearly, that it has undergone a complete
fusion. It is surrounded by some vitrified matter, proceeding from August 13.
the impurities of the iron, and probably nearly equal to the quantity of carbon absorbed from the sticks and leaves shut up in the crucible; for the steel in each crucible is by the workmen reckoned to weigh 1½ Seer. These buttons, however, are never sold by weight, and those that I tried weighed very little more than one Seer of
24 Rupees. In some crucibles the fusion is not complete; in which case, the steel is of a very inferior quality, and differs but little from common iron.

The number of people employed at one of these works is thirteen; a head workman, who makes the crucibles, loads them, and builds up the arch; and four reliefs of inferior workmen, each consisting of three persons, one to attend the fire, and two to work the bellows. Each set therefore, in the working season, labours only four hours in the day; except every fourth day, when they must attend double that time. They are all cultivators; and in the leisure time which they have from the furnace, they manage their fields. There is also a proprietor, who advances all the money required, and who receives payment when the steel is sold. Fifteen Pagodas worth of iron is purchased; two for the head workman, and one for each labourer, and for the proprietor. This iron is then given to the head workman, who for three months is occupied in making the crucibles, loading them, and preparing the furnace. During this time the twelve workmen bring him clay, repair the buildings, and make charcoal; but these labours occupy only intervals, that could not be employed on their small fields of Ragy. In the fourth month, when all has been prepared, they convert the 15 Pagodas worth of iron into steel, as above described. Every man then takes the steel which his iron has produced; and the proprietor is repaid for his advances. Another quantity of iron is then purchased, and the same process is repeated; so that by each furnace 45 Pagodas worth August 13.

CHAPTER of iron is, in the course of the year, converted into steel. the money advanced for iron, the proprietor, for the immediate subsistence of the workmen, is occasionally under the necessity of advancing them money; and he must also pay the general expenses attending the forge. These are:

					EGRAME.
To the keeper of	of the forest, f	or leave	to make c	harcoal	110
To the Sunca,	or collector of	the cust	toms -		50
To the Gauda,	or chief of th	e village	, for hous	e-rent	- 15
To sacrifices	-		•		30
To bellows	-	•	-	•	42
To the Brahma	ms as charity	-	-	• -	20
					-
				<b>Y7</b>	

Fanams 247

Neat gain - 1253

150

Every man, however, repays his share of this, in proportion to his quantity of steel; and the whole profit of the proprietor is the having three Pagodas worth of iron converted into steel, for which he will in general be in advance about 40 Pagodas. He therefore requires a capital to that extent; unless he can borrow it from some merchant, which indeed he generally does.

The 45 Pagodas procure 1800 wedges of iron, and on an average procure 4500 pieces of good steel; which, at  $2\frac{1}{2}$  for the Fanam, are Fanams 1800 equal to

000 nieces of had steel at 6 Faname

300 process of bad access	,	704/1144	_	-	100
					1950
Deduct general charges	•	•	Fana	ms 247	
Price of iron	•	•	-	450	
					697

The neat gain, 1253 Fanams, divided by 15, gives 831 Fanams clear profit for each share. The workman's wages are equal to one share, and thus amount to about 7 Fanams a month; with double that for the foreman, because he gives up his whole time to the

business. These wages are good; but the allowance for the pro- CHAPTER prietor is small, unless we consider, that he in general gets the money from the merchant, and that his only claim for reward is August 13. some trouble in settling the accompts, and the risk of some of the people running away with the advances made to them. Among the natives themselves, however, very little danger arises from this cause, as they are perfectly acquainted with the characters of the individuals employed.

Taking the estimate of the natives, of 30 Rupees weight being the true average of the pieces of steel, the quantity of stee, fit for exportation, that is annually made in this vicinity, will be about 152 hundred weight, and its value about 300% or 2% a hundred weight.

Having examined the iron and steel works, the Amildar and I Tank. visited a fine tank, which is said to have been constructed by Krishna Ráyalu of Vijaya-nagara; and it is the finest work of the kind that I have yet seen above the Ghats: unfortunately, it has long been out of repair, and lofty trees now cover all the fields which it watered. It is said, that it would require 10,000 Pagodas (about 33541.) to remove all the mud collected in its bottom, and to put it in complete order. A partial repair has just now been given, and it will be able to water some part of its former fields: the remainder will be cleared, and cultivated for Ragy, until other more urgent demands shall allow the repair to be completed.

As we approached Tavina-Caray, the country becomes open; and Appearance I observed that every field was cultivated. Tavina-Caray is a small try. town; but several additions to it are making. Some streets in the Petta are well laid out; and, as an ornament before each shop, a coconut palm has been planted. The fortress, or citadel, is as usual almost entirely occupied by Bráhmans. This might seem to be an improper place for men dedicated to study and religion; but in cases of invasion their whole property is here secure from marauders; while the Súdras, who are admitted during the attack as defenders,

August 14.

CHAPTER must lose all their effects, except such moveables as in the hurry they can remove.

> 14th August.—I went to Tumcuru, the chief place of a district, called also Chaluru. The country is the most level, and the freest from rocks, of any that I have yet seen above the Ghats. I observed only one place in which the granite showed itself above the surface. The soil in most places is good, and might be entirely cultivated. Near Tavina-Caray it is so; but as I approached Tumcuru, I observed more and more waste land. I understand, that the late Amildar did not give the people proper encouragement; and about twenty days ago he was removed from his office. By the way I passed nine or ten villages, all fortified with mud walls and strong hedges. some distance on my left were hills; and the prospect would have been very beautiful, had the country been better wooded; but, except some small palm gardens scattered at great distances, it has very few trees. Tumcuru is a town containing five or six hundred houses. The fort is well built, and by the late Amildar was put in excellent repair. The Petta stands at some distance. The great cultivation here is Ragy, but there are also many rice-fields. This year there will be no Kártika crop, as at present the tanks contain only eight or ten days water.

Bestas of Karnáta, or Cubbaru.

Here, as in several other parts of the country, there are people of a Karnáta tribe of Bestaru, who, although they do not intermarry with the Telinga Bestas, are so nearly allied, that they will eat together. They never carry the Palankeen, their principal occupation being the burning of lime-stone. Some of them are small farmers; but they never hire themselves out as hinds, or Batigaru. This tribe are called also Cubbaru. They have hereditary chiefs, called Ijyamanas, who, with a council of the heads of families, settle disputes, and excommunicate those who, notwithstanding admonition and reprimand, obstinately persist in bad practices. If a woman commit adultery with a strange man, she is excommunicated; but if it be with a Cubba, both the adulterer and the husband are fined; the

one as a corrupter, and the other for having been negligent. An CHAPTER assembly of at least ten of the tribe is called, and the woman is asked before the people, whether or not she chooses to return to August 14. her husband. If she consents, and he agrees to receive her, as is usually the case, he gives the assembly a dinner, and no one afterwards mentions the affair. If the parties cannot agree, the marriage is dissolved. This cast does not admit the connection called Cutiga, The women are extremely industrious, and hence are very valuable to their husbands, and are independent of them for support; which seems to be the reason of their possessing such a licence in their amours. After the age of puberty they continue to be marriageable. Except a few rich men, the Bestas of Karnata generally content themselves with one wife, unless the first has no children, or has had only daughters. In such cases, even the poor struggle to procure a second wife, to keep up the family. They are allowed to drink spirituous liquors and to eat animal food. None of them can either read or write. They bury the dead, and seem to have no knowledge nor belief in a future state; but they appeared very willing to assent to any thing that either I or my interpreter said on the subject. This, however, did not proceed from any conviction of its truth; but merely from civility, they being unwilling to contradict persons who were supposed to be better informed than themselves. They neither make the vow of Dáséri, nor believe in the spirits called Virika. The goddess of the cast is Yellama, one of the Saktis, in whose temples the Pujáris are persons of this tribe. They offer sacrifices to her, and to all the other destructive spirits; but say that they are of Vishnu's side. They have a Guru; vet, although he was here fifteen days ago, they know very little about him. He is a married man, is named Linguppa, and was attended by servants of the Curuba cast. His disciples here were Cubbaru, Curubas, and some other cultivators. He slept in one of the temples of the Saktis. All these circumstances would point him out to be a worshipper of Siva, and one of the Curubaru Jangamas; but he

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CHAPTER wore a thread, and marked his forehead with turmeric, like a woshipper of Jaina. He gave the Cubbas turmeric to mark their foreheads, and accepted of their Dharma, or charity. His Matam, or college, is at Meilar, near Savanuru. The Panchanga acts as Purbhita at marriages, Mala-paksha, and births. For his trouble, he receives rice, or other provisions, but is sometimes paid in lime; money being rather scarce among this tribe.

Additions to the account of the Curubaru.

The Curubas here say, that, at a temple of Bhairawa at Herray Samudra, which is near Mercasera, to the north of this place, and where one of their cast acts as Pújári, the image represents a man sitting on horseback, with the Linga round his neck, and a drawn sword in his hand. They offer sacrifices to this image, and eat the flesh. The family of Rávana have now spread all over the country; but Sarur is still considered as the proper family seat. Their Guru has the power of restoring any outcast to the enjoyment of full communion. They have a book peculiar to the cast, called Jiraga Chapagodu. It is written in the language of Karnáta, and gives an account of the tribe. The Curubaru buy their wives; a girl of a good family costs from 30 to 40 Fanams; a girl of the bastard or Cutiga breed costs 15 Fanams, or 10s.

Customs of the Panchama Cumbharu.

The Panchama Cumbharu, or Cumbharu that wear the Linga, are an original tribe of Karnáta. They say that they are of the Gunda Brimmia family, and claim no connection with Sáliváhanam, as the other Cumbharu do. They follow no other profession than the making of earthen-ware. Their hereditary chiefs are called Ijyamanas, and pay annually to government a certain sum for the clay used in their manufacture. The Ijyamana divides this assessment upon the families that are under his authority, so that each pays its proportion. They must also furnish with pots all persons travelling on public business. Each house, besides, pays annually three Fanams, or 2s. The Ijyamanas assemble four persons as a council, and with their assistance settle disputes, and punish transgressions. No higher punishment is inflicted on men than a temporary

excommunication. Women, who commit adultery, are entirely ex- CHAPTER communicated, and are never allowed to remain as concubines; and the man who seduces another's wife is obliged to pay a fine to the August 14. public. They, and the Pancham Banijigas, although they do not intermarry, can eat together; of course, they neither can eat animal food nor drink spirituous liquors. They can marry into any of the forty families descended from Gunda Brimmia; but a man and woman of the same family cannot be married together. The men are allowed to take several wives, who are very industrious in bringing clay, and making cups. The girls continue to be marriageable after the age of puberty; but a widow is not allowed to take a second husband. None of them can read. Like all other persons who wear the Linga, they bury the dead. The men of this cast have no knowledge of a future state, and neither believe in the Virika, nor take Dáséri. Their principal object of worship is Iswara, represented as usual by the Linga; in sickness they pray to the Saktis, who are supposed to inflict disorders; and they make vows of presenting their temples with money, fruit, and flowers, provided these vengeful powers will relent, and allow them to recover; but they never appears the wrath of the Saktis by bloody sacrifices. Their Guru is an hereditary Jangama, who resides at Gubi, and is called Sank'-raya. He comes once a year, eats in their houses, accepts of their charity, gives them consecrated ashes, and advises them to follow the duties and labours of their cast. If any of them are in distress, he bestows alms on them. The Panchanga, or village astrologer, reads Mantrams at their marriages, and on the building of a new house, and is thus supposed to render it lucky. The Jangamas attend to receive charity at the Mala-paksha, or annual commemoration of their deceased parents, at births, and at funerals; but do not either read or pray on these occasions.

There are many of the Woculigas, or Súdra cultivators of Karnáta Persons who extraction, who wear the Linga. In this neighbourhood these are tors, and who of the following tribes: Cunsa, Gangricara, Sadru, or Sadu, and Nona.

are cultivawear the

VII. August 14.

Customs of the Nona Wocuh

CHAPTER But many of each of these tribes worship Siva without wearing his badge; and still more are worshippers of Vishnu. All those who wear the Linga can eat together, and with the Pancham Banifigus; but they only marry in their own tribes.

> The Nona Woodligaru, who are here called Nonabur by the Mussulmans, consider themselves as Súdras, and their hereditary chief is the male representative of a person called Honapa Ciauda. chief always lives at Hosso-hully; but he sends agents to act for him in different parts of the country. He wears the Linga, but many of the tribe worship Fishnu. This, however, produces no separation in cast, the woman always following the religion of her husband. My informants are wearers of the Linga; and say, that besides the worship of this emblem, they pray and offer trust and flowers to the Saktis, but never sacrifice animals. When any explapation of a future state of rewards and punishments is given by a more learned neighbour, they say that they believe it; but this is done merely out of compliment to his superior endowments; and their worship of the gods, seems to be performed entirely with a view of procuring temporal blessings, or of avoiding present evil. They believe that the Virika, or spirits of men who have died chaste, can cure diseases. The married Jangamas are their Gurus, give them the Linga, and receive contributions in money or grain. At all ceremonies they attend for charity, but do not pray. marriages only that the Panchanga reads his Muntrams. other persons who wear the Linga, they never take Dáséri, and they bury the dead. Some of them can read the Ba wa Purana, and many of them understand accompts. They are not allowed to eat animal food, nor to drink spirituous liquors. Their chief, or his deputies, with the assistance of a council, settle disputes, and expel from the cast all transgressors of its rules. These, as usual, are, men who eat forbidden meat, and women who are forgetful of their duty to their husbands. This cast does not admit of concubines of the kind called Cutigas, nor are widows allowed to marry again.

girls, however, continue marriageable after the age of puberty, and CHAPTER all the women are industrious in the labours of the field. The men take as many wives as they can procure.

August 15.

15th August.—I went three cosses to Gubi; which, although a Gubi. small town, containing only 360 houses, is a mart of some importance, and has 154 shops. The houses in their external appearance are very mean, and the place is extremely dirty; but many of the inhabitants are thriving, and the trade is considerable. It is said to have been founded about 400 years ago, by a family of Polygars, who resided at Hosso-hully, two miles from hence, and who traced their descent from Honapa Gauda, the hereditary chief of the Nona Woculigaru that I lately mentioned. Honapa Gauda lived about 700 years ago, and his family possessed a country which annually produced about 3000 Pagodas. They were first brought under subjection by the Mysore Rájas, who imposed a tribute of 500 Pagodas. Hyder increased this to 2500, leaving them little better than renters. They were entirely dispossessed by his son, and have returned to their original profession of cultivators; but in their own tribe they still retain their hereditary rank.

From the pride of two contending sects, the Comaties, and the Disturbances Banijigas, Gubi has lately been in a very disorderly state, and has about precedence. even been in danger of destruction. The former having erected a temple to a sainted virgin of their tribe, who threw herself into the flames, rather than gratify the lust of a tyrannic Rája, the Banijigus took offence, pretending that such a temple was contrary to the customs of the town; there never before having been in that place any such building. Both parties being obstinate, the one to retain the temple, and the other to destroy it, Purnea last year ordered the town to be divided by a wall; on one side of which the Comaties and their adherents should live, and on the other their adversaries. The Comaties hitherto had on their side some show of reason, as they did not attempt to force any one to honour their saint; but now they became exorbitant in their pretensions; they would not

August 15.

CHAPTER submit to the order of Purnea; and said, that the custom of the town was for all parties to live together, the Bráhmans excepted, who occupied the fort; and that it would be an infringement of the rules of cast for them to be forced into a separate quarter. The Banifigas, to show their moderation, now offered to leave the town altogether, and to build a suburb on the opposite side of the fort, where at present there are no houses. To this also the Comaties, on the same grounds, refused their consent. The quarrel has lately been inflamed, by the chief of the Comaties having, during a procession, entered the town on horseback with an umbrella carried over his head; which are assumptions of rank, that the Banijigas have beheld with the utmost indignation. Purnea, I suppose, thinks that they are least in the wrong, and has appointed one of this cast to be Amildar. He arrived here yesterday with positive orders to assemble a council of wise men; and, these having determined what the custom originally was, to enforce that with the utmost rigour. The Amildar seems to be a prudent man, and not at all heated with the dispute; in which moderation he is not imitated by any one of the inhabitants, except the Bráhmans, who look with perfect indifference upon all the disputes of the low casts. How far the plan proposed will be successful, however, it is difficult to say. Both sides are extremely violent and obstinate; for in defence of its conduct neither party has any thing like reason to advance. If justice be done, both sides will complain of partiality, and murmurs are now current about the necessity of killing a jack-ass in the street. This may be considered as a slight matter; but it is not so, for it would be attended by the immediate desolation of the place. There is not a Hindu in Karnáta that would remain another night in it, unless by compulsion. Even the adversaries of the party who killed the ass would think themselves bound in honour to fly. This singular custom seems to be one of the resources, upon which the natives have fallen to resist arbitrary oppression; and may be had recourse to, whenever the government infringes, or is considered

to have infringed upon the customs of any cast. It is of no avail CHAPTER against any other kind of oppression.

At Gubi is one of the greatest weekly fairs in the country, and it August 15. is frequented by merchants from great distances. The country, for the fair of ten or twelve cosses round, produces for sale coarse cotton cloth Gubi. both white and coloured, blankets, sackcloth, betel-nut of the kind called wallagram, or neighbouring, coco-nuts, jagory, tamarinds, capsicum, wheat, rice, ragy, and other grains, lac, steel, and iron. Beside the sale of these articles, and of those imported for the consumption of the neighbourhood, this is also an intermediate mart for the goods passing through the peninsula.

From Mudo-Biddery, and Subhramani, two places in the country which we call Canara; from Codagu Bogundi, some place in what we call Coorg; and from a place in Malayála called Calesa, are brought black pepper, cardamoms, rol, the gum, and dupa, the wood, of the Chloroxylon Dupada, Buch: MSS. ginger, betel-nut of Bengal, cinnamon, cabob-china, or cassia-buds; casturi-china, or wild turmeric; capili flour, and a sweet smelling root called cachora. These people take away jirigay, one of the carminative seeds, blankets, sack-cloth, cotton cloths of many kinds, but chiefly coarse; sugarcandy, sugar, the pulse called tovary, tamarinds, and cash.

From Tellichery are brought dates, raisins, nutmegs, saffron, borax, pepper, and terra japonica. The returns are the same as those above mentioned.

The merchants of Gubi frequent a weekly fair, at a place called Biruru, which is east from thence 24 cosses. This is a great resort of the merchants of Nagara, and of Malayala, who sell to those of Gubi black pepper, Deshavara betel-nut, terra japonica, dates, ginger, danya, an umbelliferous seed, garlic, fenugreek, wheat, the pulse called hessaru, and capsicum. They buy sugar and sugar-candy, lac, coarse cotton cloth, sack-cloth, and bagy, or calamus aromaticus, and receive a large balance in money.

CHAPTER VII. August 15. From Seringapatam is brought money to purchast betel-nut, sugarcandy, sugar, jirigay-seed, Madras goods, and blankets.

The merchants of Bangalore, Colar, and other adjacent places, bring cotton cloths, and a few of silk, and take away betel-nut both Deshavara and Wallagram, black pepper, coco-nuts, cinnamon, ginger, terra japonica, vapili flour, and carthunus, or cossumba. If the demand be sudden, they bring ready money: but commonly they bring as much cloth, as, when sold, procures their investment backwards; and sometimes even more.

From Namagundla, Gudibunda, and Pallia, which are places near Bala-pura, the merchants bring sugar, sugar-candy, and jagory. They take back betel-nut, coco-nuts, terra japonica, and garger. The exchange is about equal.

From Pamudi near Gutti, and other places in the country ceded to the Nizam, merchants bring a variety of cotton cloths, and take away coco-nuts, and lac, with a balance in money.

From Haveri, in the Marattah country, merchants bring cossumba, terra japonica, opium, tent-cloth, mailtuta, or blue vitriol for colouring the teeth, borax, sajira, the seed of an umbelliferous plant, and asafætida. They take away coco-nuts, lac, and money.

Merchants from Gubi, and its neighbourhood, go to Wallaja Petta, near Arcot, with Deshavara betel-nut, and black pepper; and bring back cloth, and all kinds of goods imported by sea at Madras.

Merchants from Saliem, and Krishna-giri bring cloths, and take away betel-nut, pepper, and money.

Trade is allowed to be flourishing at present. At every fair there are sold from 50 to 100 loads of betel-nut, produced in the neighbouring districts of Sira, Hagalawadi, Chica-Nayakana-Hualy, Budihalu, Honawully, and Gubi: with about from 20 to 40 loads of Copra, or dried coco-nut, from the same districts. Much, however, of these articles, the produce of these districts, is sold at other places. The load is 8 Maunds, each of 40 Sultany Seers. The average rate of this

would give 31,000 Maunds, or 6698 hundred weight of betel-nut; CHAPTER and 12,480 Maunds, or 2704 hundred weight of coco-nut, the produce of these districts, sold annually at Gubi.

August 15.

The coarse cloths made in the neighbourhood by the Dévángas, Manufac-Togotas, and Whalliaru, sell from 2 to 6 Fanams for each piece called tures. Shiray. About 100 pieces are sold at each fair, worth in the whole year about 20,000 Fanams, or nearly 666 l. In the neighbourhood, however, there are many fairs, where these manufactures are also sold.

Although this is a very short distance from Sira, the Candaca of Measures, grain contains only 320 Seers, and the shells called Cowries are not weights, money. at all current. The Batta, or allowance made for exchanging gold to copper, is  $\frac{\tau}{3}$ , or not quite  $\frac{\tau}{2}$  per cent. on the regulated price.

The country, between Tumcuru and Gubi, consists of gently Appearance swelling lands, entirely resembling that through which I came of the country. yesterday. A very considerable proportion of it is not cultivated. The soil near Tumcuru is rather sandy. Near Gubi it is in general good, with a large proportion of rice lands. This is now cultivating chiefly for the crop called Puneji. The tanks are too small to retain a supply of water for the Vaisákha crop. They answer only for cultivation in the rainy season; as they merely preserve a quantity sufficient to supply the fields, when there may be an interval of eight or ten days of dry weather. The rains seem to have been here more copious than towards the north and east; but still the people complain. In no place between this and Madhu-giri is water raised by the Capily, although no reason is assigned for this neglect, except that it is not the custom.

16th August.—I went three cosses to Muga-Nayakana-Cotay, a Muga-Nayavillage in the Hagalawadi district. It is strongly fortified with mud kana-Cotay. walls, and contains 190 houses. Before the last Marattah invasion, it had, in the Petta, a handsome market, consisting of a wide street. which on each side had a row of coco-nut palms. While Purseram Bhow was at Sira, he sent 500 horse and 2000 irregular foot, with Vol. II.

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CHAPTER one gun, to take the place, which was defended by 500 peasants from the neighbourhood. They had two small guns, and 100 matchlocks; the remainder were armed with slings and stones. The siege lasted two months, during which the Marattahs fired their gun several times, but they never succeeded in hitting the place. On some occasions they had the boldness to venture within musket shot of the walls; but two or three of their men having been killed, they afterwards desisted from such deeds of hardihood, and finally retired without one of the defendants being hurt. The peasants destroyed the market, to prevent the Marattalis from availing themselves of the houses in their approach. Nothing can equal the contempt which the inhabitants of Karnata have for the prowess of a Marattah army, but the horror which they have at its cruelty. When Purseram Bhow left this neighbourhood, his people carried off all the handsome girls that fell into their hands; and they swept the country so clean of provisions, that three fourths of the people perished of hunger.

Appearance of the country.

The country through which I have come to-day, is much like that which I saw yesterday. For three years the crop of Rugy has almost entirely failed. Last year the rain coming in plenty, after the crop of Ragy had been burnt up, they had a good crop of rice. The year before, there being in the reservoir only a small quantity of water, the people had no rice; but applied the water to the cultivation of sugar. Hitherto this year the Ragy looks well; but there has been no rain for twenty days. There has been water enough, however, to enable them to sow one fourth of the Kartika crop of rice. If in ten days any rain should come, the crop of Ragy will be good, and much of it would still endure a drought of three weeks. Notwithstanding this scarcity, the natives are not absolutely in want of provisions; for they bring a supply of grain from other places that have been more favoured.

August 17.

17th August.—In the morning I went two and a half cosses to Conli. About three miles from my last night's quarters, the country

is hilly; but the hills are lower, and not near so rugged as those to CHAPTER the eastward among the Durgas. Owing probably to the vicinity of the iron mines, they are very bare of trees, and their surface is August 17. covered with small stones intermixed with bare rock; but this, not being granite, never appears in those immense naked masses so common in the hills running north from Capala-durga, or near the eastern Ghats. The hills here, as well as the others above the Ghats, do not form long uninterrupted ridges, but are almost every where surrounded by level ground; so that in travelling among them, there is little occasion to ascend any great heights The vallies in some places are narrow, and torn up by the empty channels of torrents; in other places they are wide, and well cultivated. I am informed, that this range of low hills extends all the way north to Chatrakal, and in its course comes near to Sira. It seems to extend about three miles south from Conli; and beyond that I can see quite a level country, extending to a low range of hills at Miasamudra. In the vallies here are many palm-gardens. The people complain much of the want of rain; but their crops have not suffered, and I suspect that they exaggerate the dryness of the country. A Bráhman here would not allow that he had ever seen a season in which rain had fallen in tolerable plenty.

On my way I passed over Doray Guda, the hill producing iron- Iron mines at ore; but, not being satisfied with the view which I then took, I Doray Guda. determined to stay another day to examine it more fully; and in the mean while I investigated the process that is used for smelting the ore.

At each set of works twenty men are employed. In the smelting- Manner of house there are.

smelting the

- 1 man to put in the ore and charcoal, and to take out the iron.
- 3 men to blow the bellows.
- 6 men to supply the charcoal.
- I man to supply ore. In a forge that is about two miles from the mine, he must keep 5 asses.

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Angust 17.

In the forging-house there are,

- 1 blacksmith to manage the fire and furnace.
- 2 bellows-men.
- 3 hammer-men.
- 5 charcoal-men. No Bamboos are to be procured; the charcoal of trees, therefore, must be used; but were the other obtainable, it would be preferred.

The ore is smelted twice a day. At each time, about 166 Cucha Seers of cleaned ore are put into the furnace; and the two smeltings, on an average, should produce 65 Seers of wrought iron, which is about 20 per cent. of the ore. The two blocks of iron from the smelting-furnace are heated, and then cut into five wedges, each about three Scers; and twenty-five, each about two Scers. These, having been heated in the forging-furnace (which is open above, and does not seem to give more heat than a good blacksmith's forge), are beaten once by three men, with hammers weighing about 12 or 14 pounds, and are then fit for sale. The iron from the first, therefore, is very malleable, and the fusion is never so complete as to form a button of the metal. The iron. according to the demand, sells at from three to five small pieces. or from 6 to 10 Seers, for the Fanam; and is bought up by the merchants of Chin'-raya-pattana, and Narasingha-pura, who carry most of it to Seringapatam. At the first price it brings 20 s. 8 d. a hundred weight; at the second price, it brings rather more than 12s. 2d. It must be observed, that this account entirely contralicts that which was given in the Chin'-rayan'-durga district; the quantity of iron produced from the ore here, being infinitely smaller and higher priced than that produced from the black-sand. The wedges are also smaller, and the workmen are paid by a division; all of which are contrary to the assertions of the people of Chin'-rayan'-durga.

The manner of division is as follows: the master gets the produce of one day's labour, and the workmen get that of three, and divide each day's work thus:

To the man w To each of the						:	-	Pieces.	CHAPTER VII.
piece	-	_	-	•	_	-	٥٠	3	August 17.
_				L	arge pi	ec <b>e</b> s	•	5	
ha it 1 t		T. *	•			9	Small	Pieces.	
To the head-r			-		••	-		3	
To each of th	e 9 char	coal mal	kers 1 sn	nall pie	ce	-		9	
To the blacks	mith	-	-	-	7	-		5	
To each of th	e bellows	-men at	the forg	ge 1 pie	ce	-		2	
To each of th	e hamme	r-men 2	pieces	-		•		6	
					11 .				
				Sn	iall pied	ces.	- 9	25	

The labourers do no other work; and, when the master can make the necessary advances, are employed the whole year. Allowing that they smelt in all 320 days in the year, the lower workmen, at a medium price of 4 pieces of iron for the Fanam, make only 5 Fanams a month, out of which they must pay ground-rent for their huts. This is low wages. The blacksmith has high wages; but he must find the hammers, anvils, forceps, &e.

The annual expenses of the master are:

	Fanams.
To the renter of mines and woods	130
To ground-rent for the forge	<i>5</i> 0
For bellows	180
For an annual sacrifice to Gudada Umma, the mother of the	
hill	10
For two sacrifices to Hombalu Déváru, the god of furnaces	<b>3</b> 0
To a feast given by the labourers at Gauri, in honour of the	
anvil, 150 coco-nuts, and one Rupee's worth of legumes	20
A new cloth to the blacksmith at Sivarátri	10
Fanams -	430

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As, at the rate of working above stated, 80 days produce of the forge comes to his share, he gets 2600 pieces of iron, which at the average price are worth 450 Fanams, leaving only a profit of 20 Fanams. From the smallness of this profit, I doubt the accuracy of the account; especially as, by way of a retainer, the master must advance from 50 to 70 Fanams to each man, say in all 1200 Fanams, and must make them occasional advances of 20 or 30 Fanams, to enable them to subsist till they can sell their iron. They are by this means bound to his service; and, without repaying the advance, which very few of them are ever able to do, they can follow no other employment. If he cannot employ them, they may for a subsistence work with the farmers. He is obliged to build their huts, which is done in the intervals of other labour. It is probable, in fact, that all the advances are made by the merchant, in which case his profit is sufficient.

August 18. Mine at Doray Guda. 18th August.—In the morning I went all over Doray Guda, which is about a mile in length, from five to six hundred yards in width, and is divided into three hummocks. The northernmost of these is the most considerable, and rises to the perpendicular height of four or five hundred feet. It is situated in the Hagulawadi district; but, for what reason I know not, pays its rent to the Amildar of Chica Nayakana Hully. This is the only hill in this vicinity that produces the iron ore; but as the same hill in different villages is called by different names, I at one time imagined that the mines had been numerous. The people here were ignorant of there being any other mine in this range of hills; but that I afterwards found to be the case. At Conli this hill is called Doray Guda, which name I have adopted. On all sides it is surrounded by other low hills; but these produce no iron.

The whole strata of these hills are vertical, and, like all others that I have seen in the country, run nearly north and south. Where they have been exposed to the weather on a level nearly

with the ground, which is generally the case, these strata divide CHAPTER into plates like schistus, and seem to moulder very quickly. few places they rise into rocks above the surface, and then they decay into roundish or angular masses. All that I saw were in a state of great decay, so that it was difficult to ascertain their nature; but, no doubt, they are either earthy quartz, or hornstone variously impregnated with iron, and perhaps sometimes with manganese. Within, the masses are whitish, with a fine grained earthy texture; but outwardly they are covered with a metallic efflorescence, in some places black, in others inclined to blue.

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A ledge of this rock passes through the longer diameter of *Doray* Guda, and seems to form the basis of that hill; but the whole superstratum, both of the sides and summit, seems to be composed of a confused mass of ore and clay. The surface only is at present wrought; so that very little knowledge can be obtained of the interior structure of the hill. In its sides the miners make small excavations, like gravel pits, but seldom go deeper than five or six feet. On the perpendicular surface of these the appearance is very various. In some places the ore is in considerable beds, disposed in thin brittle vertical plates, which are separated by a kind of harsh sand, yellow, bluish, or green. In one place I observed this sand of a pure white, and forming little cakes, readily crumbling between the fingers. In other places the ore is hard, forming irregular concretions, with various admixtures of earth, clay, and ochres. This kind has a tendency to assume regular forms, botroidal, and reniform, which inwardly are striated with rays diverging from a center. Sometimes plates are formed of this kind of ore, which consist internally of parallel striæ. Another form of the ore is bluish, and very brittle. The whole is mixed with what the natives call Cari-cul, or black-stone, which is brown hæmatites. This is also scattered all over the surface of the ground, and there especially assumes botroidal and reniform shapes. By the natives it is considered as totally useless. In some pits I could observe nothing like

August 18.

CHAPTER a regular disposition of the component parts; in others, the various substances are evidently stratified, both in straight and waved dispositions.

> The manner of mining the ore is extremely rude and unthrifty. A man with a pick-axe digs on the side of the hill, until he gets a perpendicular face five or six feet wide, and as much high, having before it a level spot that is formed from what he has dug. Before him he has then a face containing ore, more or less intermixed with clay, sand, and hematites, and covered with two or three feet of the external soil. He then scoops out the ore, and matters with which it is mixed; and having beaten them well with the pick-axe, and rubbed them with his hands, he picks out the small pieces of ore, and throws away the hæmatites, sand, clay, other, and large pieces of ore; assigning as a reason for so doing, that, as he can get plenty of small pieces there is no occasion for him to be at the trouble of breaking the large ones. The crumbling ores are also much neglected, as they are transported with difficulty. When they have dug as far as they choose to venture, which is indeed a very little way, the miners go to another spot, and form a new pit. The ore, broken as I have now mentioned, is carried down on asses backs, and farther cleaned from earth, and broken into very small pieces, before it is put into the furnace. If it is to be carried far, it is generally transported by huffaloes: but this unwieldy animal is incapable of ascending the hill, which in many places is very steep, and the paths are formed on the mouldering materials that have been thrown away by the miners. There is no person who prepares the ore for those who come from a distance: they remain here for sometime with their asses; and, when they have collected a considerable quantity, a number of buffaloes are brought to carry it away. The renter has no occasion to come near the mine. He knows the men that get a supply of ore, and each pays yearly a certain sum, and takes as much ore as he pleases. The renter states the furnaces that are supplied from hence to be six in Tumcuru, ten

in Hagalawadi, seven in Chica Nayakana Hully, and three in Sira; CHAPTER but I have access to know that he conceals part of them; yet he is much more correct than the revenue accompts that are kept in August 18.

Purnea's office at Seringapatam.

No tradition remains concerning the time when this mine began to be wrought, for the natives think that ore has been taken from it ever since the creation of the world; or, as they express themselves, since the hill was born; and, as above 100 ass-loads are daily carried from it, I think it probable that the miners have repeatedly gone over the surface. At each time the natives remove only a very small proportion of the iron; and after a certain number of years, new decompositions, and recompositions of the materials seem capable of rendering the surface again fit for their manner of working.

The miners have a tradition, that formerly there had been dug into the southern face of the largest hummock an immense cavern, from whence the whole neighbourhood was supplied with ore. The roof of this is said to have given way, and to have buried the miners of seven villages, with all their cattle. The appearance of the hill confirms the truth of this tradition, there being evident proofs of a part of it having fallen in; and in the perpendicular surface, left by this convulsion, may be seen the mouth of a cavern, probably a part of the old mine. The time when this happened, is likely to have been very remote; as, lower down than this convulsed surface, there is another mine, which the natives believe to be a natural cavern, and into which, not without some reason, they are afraid to enter. Indeed, none of them have attempted it; for they are persuaded that it extends a great way into the earth, which made me curious to examine it.

The miners have evidently wrought into this part of the mine from the westward; and until they came to the ledge of earthy quartz, or hornstone, before mentioned, they have carried on a regular face of considerable width and depth. This ledge cutting

August 18.

CHAPTER off the mine, they had by the side of the barren rock made a horizontal cavity into the hill, and thus formed a cavern about fifty feet long, twelve feet high, and nine wide. It is probable, that they had then met with some obstruction; for under this they have formed another mine, which cuts off the communication between the ground and the first mentioned cavern. As there were evident marks of the feet of a large beast of prey at the mouth of the cave, I took the precaution of making a Seapoy fire his musket into it; and, nothing but a large flock of bats having appeared, I went in, accompanied by two armed men. We soon came to a place where a bed had been formed in the sand by some of the tiger kind; and having advanced about 100 feet we reached the end of the cave, where another wild beast had formed its bed. This, therefore, was probably the usual haunt of a pair of leopards. We found also a porcupine's quill; but were uncertain, whether the animal had fallen a prey to the leopards; or whether, protected by its prickles, it ventured to shelter itself in their company. The sides of the mine consist partly of the ore, and partly of the rock already mentioned, which is much intermixed with the Caricul, or brown hæmatites. The place is perfectly dry. It is probable that the work was deserted when the poor people in the higher mine suffered. Ever since, the miners have contented themselves with working on the surface, and even there are in constant fear. An annual sacrifice is offered to prevent the spirit of the hill from overwhelming the miner. She is called Canicul Dévaru, or the goddess of ironstone, and Gudada Umma, the mother of the hill; and is represented by the first convenient stone that the workmen find when they come to offer the sacrifice. They also put themselves under the protection of a benevolent male spirit, named Muti Raya, or the pearl king. He is worshipped by offerings of flowers and fruits only, and is represented by a shapeless stone, that is hid in the obscurity of a shrine, which is composed of stones and flags, and which in all its dimensions extends about six feet.

19th August.—In the morning I went two cosses to a village CHAPTER named Madana Mada, having been detained on the way by examining the minerals of a hill, which, from a temple situated near August 19. it, and dedicated to Siva, is named Malaiswara Betta. Owing to Betta. the vicinity of this temple, a white Lithomarga that is found on the Minerals. hill is considered as holy, and is used in place of the consecrated ashes which the followers of Siva employ to make the marks of their religion. The strata are nearly the same as near Doray Guda, and consist of a schistose decaying rock disposed vertically. Parallel to this I observed strata of white fat quartz, from one inch to twenty feet in thickness. Near the temple I found the veins or strata of quartz running parallel to each other, and from six to twelve inches distant, and at similar distances sending off transverse bands which united the strata. The interstices of this kind of network were filled up with the common stone of the country, not much decayed. It seems to be a hornstone, containing a good deal of iron, and some mica. The surface of this rock had a curious appearance. The ferrugineous brown of the hornstone being checquered with the gray quartz; while this, resisting the weather best, stood up considerably above the surface, and represented in miniature the whin-dykes of the island of Mull, as described in the Philosophical Transactions. In some places I saw the white quartz decaying into sand, and forming masses that on the slightest touch crumbled between the fingers. As I ascended the hill, I met with a curious concretion of brown calcareous tufa. It resembled very exactly a decayed white-ant's (termes) nest changed into lime; and amongst its branches were impacted some pieces of decayed hornstone, round which it had evidently been formed. In these hills such concretions, I was afterwards informed, are very common; and some of them are of a pure white, in which case they are burned into lime. But this information I did not receive in time to ascertain the fact. I saw also several detached lumps of brown hæmatites; but on the hill there is no ore of iron, that is by the natives considered as workable.

Malaiswara

CHAPTER VII. August 19.

The Lithomarga is found in large masses heaped together, and incumbent on the rocky strata, with various fragments of which it is intermixed; and it appears to me to have been formed from the hornstone in a particular state of decay. Its surface is generally shining, polished, and conchoidal. The masses, so far as I observed, are not disposed in strata; but, internally, some of the pieces are composed of alternate thin plates of different colours. That used for superstitious purposes is of a pure white colour, and indurated substance; some is red, being coloured by an oxyde of iron; some, as I have observed before, is internally stratified, and consists of alternate layers of the Lithomarga and of a yellow othe; some is black, resembling very dark vegetable mould in an indurated state; some again of the Lithomarga is of a pure white colour, and friable nature; and nearly approaching to this is another clay, which is evidently decomposed white mica. Among the Lithomarga is found a black friable substance, in its appearance much resembling charcoal; but it is undoubtedly of a fossile nature, and probably is an iron ore. It has a bluish tinge, which it probably derives from manganese.

The temple of *Malaiswara* is a very poor building; but is much frequented at a festival in the month of *Magha*. Some of the figures on the chariot of the image are exceedingly indecent. The woods above the temple are rather taller than usual in these barren hills, and contain many trees of the *Dupada*, *Chloroxylon Dupada*, Buch: MSS. The resin is used as incense; and musical instruments, somewhat resembling the guitar, are made of the wood. From the top of the hill the view is very fine; the country being composed of hills, cultivated fields, reservoirs like small lakes, and palm gardens, all intermixed. In this hilly country are some considerable flocks of sheep, but no herds of breeding cows.

Madana Mada. Madana Mada contains 40 or 50 houses, and is placed between two reservoirs; one belonging to itself, and the other to a neighbouring village. So partial are the rains in this country, that the one reservoir is now half full, while the other has not above a

quarter of its water; the two hills, from whence they are supplied, CHAPTER being on opposite sides of a very narrow valley. Madana Mada has a very fine palm garden, for the use of which the water of its August 19. reservoir is entirely reserved. When that fails, the proprietors have Three thousand Pagodas recourse to the machine called Capily. have been granted by Purnea for enlarging their reservoir; by which means the machinery is expected to become unnecessary, and of course the revenue will be greatly augmented. The gardens here contain 48,000 palm trees.

At night I was awaked by a prodigious noise in the village, which Epilepsy was at some distance from my tents. On inquiry of the sentry, I imagined to be owing to was told, that there was no one near except himself; every other a devil. person having gone into the village as soon as the uproar commenced. I lay for some hours in great uneasiness, supposing that my people had quarrelled with the natives; but, it being a rainy night, I did not venture out, and was unwilling to part with the sentry. Soon after all was quiet, and the people returned. In the morning my interpreter told me with a good deal of exultation, that one of the cattle-drivers had been possessed by a Pysachi, or evil spirit, and had been for some time senseless, and foaming at the mouth. On this occasion the whole people, Mussulmans and Pagans, had assembled; and, in hopes of frightening away the devil, had made all the noise that they could: but he had continued obstinately to keep possession, till the arrival of the Bráhman, who, having thrown some consecrated ashes on the man, and offered up the prayers proper for the occasion, at length procured a release. The interpreter, I suspect, made the most of his story, in order to remove my infidelity; as the day before I had refused my assent to believe, that certain Mantrams pronounced by a Bráhman could compel the gods to be present in whatever place he chose. almost unnecessary to observe, that the poor cattle-driver was subject to the epilepsy, the recurrence of which this night had, I believe, been occasioned by a violent paroxysm of intoxication, in

VII.

August 20.

Minerals of Gajina Guta.

CHAPTER which the whole party had been so deeply engaged, that until VII. morning I could not get a man to tie up the baggage.

20th August.—In the morning I went to Chica Nayakana Ilully; and by the way visited a hill called Gajina Guta, which produces much Cavi cullu, or reddle. This hill is reckoned 1 coss from Chica Nayakana Hully. The part of it which I examined consists of Carical, or brown humatites, and clay. In some places the humatites forms a kind of rock; in others, it is found only in small lumps immersed in the clay. In this hill it has every where a strong tendency to decomposition, and then in most places forms red ochre, but in some parts it falls into a yellow oxyde. I observed nothing in it like strata. Those masses which consist of clay mixed with lumps of the hæmatites, in various stages of decomposition, hear a strong resemblance, except in hardness, to the hornstone porphyry found near Seringapatam; for many of the lumps of hæmatites are angular, and have a glassy longitudinal fracture, while their transverse fracture is earthy. Whoever sees these masses, I am persuaded, will be struck with the resemblance, and will believe that from the one kind of mineral the other derives its origin. In all this chain of hills, however, I confess, I saw no porphyry, nor even granite. The reddle is found in large veins, or irregular masses, running through the rock of hæmatites, or masses of clay, in very irregular directions; and seems to be nothing more than the hornstone of the country dissolved into clay, and then strongly impregnated with the red oxyde of iron, from a similar dissolution of the hæmatites. It always contains specks of yellow other. People come to dig it from Hegodu Devana Cotay, Chin'-ruya-pattana, Narasingha-pura, Gubi, and all the intermediate country toward the south and west, and they send it still farther toward the frontiers. For every ox-load of about 5 Cucha Maunds, or about 130 lb. they pay to the renter 12 Dudus, or about 6d. says, that about 30 loads only are annually required. He keeps no person on the spot, and is either attempting to deceive me,

or is himself defrauded; for the excavations made to collect it CHAPTER are very considerable. It is used to paint walls, and to dye Goni, or sackcloth, and the cloth used by Sannyásis and Jangamas. August 20. The dye comes out with the least water, but the colour is easily restored.

In the same places are found Lithomargas of several colours, which seem to me to be portions of the clay less impregnated with iron than the reddle; and which perhaps derived their origin from hornstone, that contained magnesia, as some are known to do.

In one of the excavations that have been made by digging out the hamatites, and which forms a cave, I found the nests of a flock of wild pigeons, exactly resembling those of the caves of Europe. This bird therefore, is perhaps one of the most universally diffused kinds in the old world, at least of such as are in a wild state. The common sparrow is equally universal.

Chica Nayakana Hully is a large square town strongly fortified with mud walls, and having Bruches, or cavaliers, at the angles. In its center is a square citadel fortified in a similar manner. In the outer town a wide street runs all round, and on both hands sends off short lanes to the outer and inner walls. The houses are at present very mean and ruinous, and do not nearly occupy the whole space within the walls. They are in number about 600, of which 80 are occupied by Brahmans. It contains a garden which belongs to the government, is in great disorder, and is rendered disgusting by two Banyan-trees (Ficus Bengalensis) loaded with large bats, whom the people will not disturb. To the south of the town, there was formerly a large suburb; but about forty years ago it was destroyed in an invasion of the Marattahs. It was plundered by Purseram Bhow, when he was going to join Lord Cornwallis at Seringapatam; but at that time he obtained very little, the inhabitants having hidden their most valuable effects, and withdrawn into the hilly country. When the Marattah army retired to Sira,

August 20.

CHAPTER they sent to the inhabitants assurances of protection, and began by making small daily distributions of charity to the Bráhmans. this means they inveigled back a considerable number of the inhabitants; and no sooner had they got the leading men into their power, than they put them to the torture, until the wretched men discovered where their effects were hid, and thus they procured 500,000 Rupees. During the remainder of Tippoo's reign the place continued languishing, the inhabitants of 300 houses only having ventured back. It possesses a small manufacture of coarse cotton cloth, both white and coloured, and made by Dérangus and Togotaru. It has also a weekly fair, at which these goods, and the produce of the numerous palm-gardens in the neighbourhood, are sold. Many of its inhabitants act as carriers, transporting goods to different places for the merchants of Naggara and Bangaluru. Its name signifies the town of the little chief; which was the title assumed by the Polygars of Hagalawadi, its former masters, and who about 300 years ago first fortified it. About a century afterwards they were overcome by the Polygars of Mysore; and, in order to retain Hagalawadi free from tribute, gave up entirely this part of their dominions. Hyder made them tributaries even for Hagalawadi, and his son stripped them of every thing.

August 21.

21st August.—I remained at Chica Nayakana Hully, investigating the management of the palm-gardens in its vicinity. These occupy by far the greater part of the watered land in the districts called Honawully, Budihalu, Hagalawadi, and Chica Nayakana Hully, with a considerable portion in Sira and Gubi. In the dry season they require the assistance of the Capily, the water in the reservoirs seldom lasting throughout the year.

Coco-nut.

Coco-nut palms are planted in rows round the Betel-nut gardens, and also separately in spots that would not answer for the cultivation of this article. The situation for these gardens must be rather low; but it is not necessary that it should be under a

reservoir; any place will answer, in which water can be had by CHAPTER digging to the depth of two men's stature. The soil which is here reckoned most favourable for the coco-nut, is a red clay mixed August 21. with sand. It must be free of lime and saline substances. soils, however, are employed; but black mould is reckoned very bad. The coco-nuts intended for seed are cut in the second month. after the winter solstice. A square pit is then dug, which is sufficiently large to hold them, and is about a cubit in depth. In this, fifteen days after being cut, are placed the seed nuts, with the eyes. uppermost, and contiguous to each other; and then earth is thrown in so as just to cover them, upon which is spread a little dung. In this bed, every second day for six months, the seed must be watered with a pot, and then the young palms are fit for being transplanted. Whenever, during the two months following the vernal equinox, an occasional shower gives an opportunity by softening the soil, the garden must be ploughed five times. All the next month it is allowed to rest. In the month following the summer solstice, the ground must again be ploughed twice; and next month, at the distance of 48 cubits in every direction, there must be dug pits a cubit wide, and as much deep. In the bottom of each a little dung is put; and the young plants, having been previously well watered to loosen the soil, are taken up, and one is placed in each pit. The shell still adheres to the young palm, and the pit must be filled with earth, so far as to cover the nut. Over this is put a little dung. three months the young plants must be watered every other day; afterwards every fourth day until they are four years old, except when there is rain. Afterwards they require no water. Every year the garden is cultivated for Ragy, Udu, Hessaru, or whatever other grain the soil is fitted for, and is well dunged; and at the same time four ox-loads of red mud are laid on the garden, for every tree that it contains, while a little fresh earth is gathered up toward the roots of the palms. The crop of grain is but poor, and injures the palms; it is always taken, however; as, in order to keep down the weeds, the ground

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must at any rate be ploughed; as the manure must be given; and as no rent is paid for the grain. On this kind of ground the coco-nut palm begins to bear in twelve or thirteen years, and continues in perfection about 60 years. It dies altogether after hearing for about a hundred years. They are always allowed to die; and when they begin to decay, a young one is planted near the old one, to supply its place. In this country, wine is never extracted from this palm, for that operation destroys the fruit; and these, when ripe, are considered as the valuable part of the produce. A few green mus are cut in the hot season, on account of the refreshing juice which they then contain, and to make coir rope: but this also is thought to injure the crop. The coir made from the ripe nuts is very bad, and their husks are commonly burned for fewel. A sufficient quantity of coir for country use is made by people of the low cast called IVhalliaru, who collect the green husks of the nuts, which have been cut for juice, or thrown down by the monkies. In order to rot the substance connecting the fibres, they steep the husks for six months in water; and then having placed them on a stone, they beat them with a stick, and finally rub off with their hands all the adhering substance. The fibrous part, or coir, is then fit for being twisted into yarns. The crop begins in the second month after the summer solstice, and continues four months. A bunch is known to be ripe when a nut falls down, and it is then cut. Each palm produces from three to six bunches, which ripen successively. A middling palm produces from 60 to 70 nuts. As the nuts are gathered, they are collected in small huts raised from the ground on posts. When a merchant offers, the rind is removed, at his expense, by a man who fixes an iron rod in the ground, and forces its upper end, which is sharp, through the fibres; by which means the whole husk is speedily removed. He then, by a single blow with a crooked knife, breaks the shell, without hurting the kernel, which is then fit for sale, and is called Copra. A man can daily clean 1300 nuts. From 20 to 30 per cent. of them are found rotten. These kernels sell to

the merchant at from 30 to 40 Fanams a thousand. The merchants CHAPTER frequently advance to the whole amount of the expected produce, and sometimes are forced to wait for repayment till a second crop: August 21. but the price, they allow, is in general low; and the proprietors of gardens, that are in easy circumstances, prefer taking their chance of the market.

The old branches and leaves, of which a certain number annually perish, are allowed to drop spontaneously; and are here used chiefly for fewel. They are also used to thatch the huts in the garden; but in this country are seldom, if ever, employed in the houses of the natives. The shells are made into charcoal, which is the only kind that the goldsmiths use.

To stock a garden of 200 trees, requires two men, three oxen, and a buffalo. These do no other work, but are sufficient for the whole cultivation. It must be observed, that if the palms are planted at the distance stated by the cultivators, a garden containing 200 trees would occupy above 23 acres; and the dry crop of grain may be considered as fully equal to the whole expense of cultivation. A garden of good soil pays 70 Fanams for the hundred trees; and of a very bad soil, such as that containing lime, the hundred trees pay only 20 Fanams; and all intermediate rents are paid according to the value of the soil. At the first rate, the tree pays as rent about  $5\frac{1}{3}d$ , and the acre not quite 4s. Take the average produce of a middling tree, as the neat produce of a tree on a good soil, and we have 65 nuts, the average price of which, at 35 Fanams a thousand, will be 184 pence; from which deducting the rent, each tree is worth about 13 d. a year to the proprietor. To judge from appearance, however, I am inclined to think that the trees are in general planted nearer to each other.

The coco-nuts that are planted around betel-nut gardens are not so productive, but pay a similar rent; which, however, is always low, in proportion as the soil is bad. They are planted in order to shelter the betel-nut palms.

CHAPTER
VII.
August 21.
Betel-nut.

The Betel-nut palm, or Arcca, thrives best in the rich black mould called by the natives Eray, or Krishna Bumi. The natives here look upon it as a matter of indifference, whether or not, on digging a little depth, water may be found in the soil. All that is required, is to have a proper supply of water either from the reservoir, or by means of machinery.

In the second month after the winter solstice, the nut intended for seed is cut; and, having been put in a heap, is for eight or ten days kept in the house. A seed-bed is then dug to the depth of a foot, and three inches of the mould is removed from the surface, which is then covered with a little dung. On this the nuts are placed with their eyes uppermost, and close to each other. They are then covered with an inch of mould, and for three months are watered every other day. The seedlings are then three or four inches high, and must be transplanted into a fresh bed that is prepared in the same manner; but in this they are placed a cubit distant from each other. Here they grow for three years, receiving water once every other day; and once a month they are cleaned from weeds, and have a little dung.

One year after planting the seed, the ground that is intended for the garden must be dug to the depth of a cubit, and the soil exposed for two months. Young plantain trees (Musa) are then placed in it at 16 cubits distance from each other, and it is surrounded by a screen of coco-nut palms, and of Jack (Artocarpus integrifolia), lime, and orange trees, which are defended by a hedge of the Euphorbium Tirucalli, or milk-bush. At the same time seeds of the Agashay, or Eschynomone grandiflora, are planted throughout the garden, at the distance of four cubits. When there is no rain, the garden must once in fifteen days be watered by channels made for the purpose. In the second month after the summer solstice of the third year, the young Arecas are fit for transplantation. Then throughout the garden, at the distance of 16 cubits, and in the middle between every two plantain trees, are formed pits, a cubit

deep and a cubit wide. In each of these pits a young Areca is put, CHAPTER and it must be carefully raised from the seed-bed with much earth adhering to its roots; and, after it is placed, the pit must be filled August 21. with earth, and then receive a pot of water. The young Arecas are then between two and three feet high, and have four or five branches. If there be water in the reservoir, an irrigation once a month is sufficient; but the Capily must be used once in ten days, as the waterings given by it are but scanty. For three years afterwards the whole garden must be completely hoed twice annually. At the one hoeing, for every four Arecas, it must have a bullockload of dung; and at the other hoeing, every tree must be allowed an ox-load of red soil. The mud of reservoirs is here thought to be very bad for a betel-nut garden. Ever afterwards the garden is hoed completely once a year only, and is then manured with dung and red earth. At the intermediate period of six months, it is hoed near the trees, and has a little dung. At the end of the first three years, the Agashay trees are cut. The plantains are always reserved; but, as the old stems are cut, which is always done in from 12 to 18 months, the young shoots are conducted to a distance from where the parent was originally placed; and when the garden is twenty years old, in these spots are planted other young Arecas, to supply the places of the old ones when they decay. This second set are again supplanted by a third, growing where the first set did, and thus a constant succession is preserved. In a new garden, the Areca begins to bear fruit in nine years; but fourteen or fifteen years are required to bring forward those which are planted among old trees. They continue to bear for sixty or seventy years; but after having been twenty-five or thirty years in perfection, they begin to decay.

In a few gardens here, the mode of raising betel-nut that is in use at Madhu-giri has been adopted; and it is said to be preferable, but is attended with much trouble. The plantain tree, however, is always preserved, and is considered as useful to the old palms.

August 21.

CHAPTER Yams, or Dioscoreas, are considered as prejudicial; but I observed them in several gardens, the proprietors of which said that they allowed them only to climb on the old palms, and to these they did little harm.

> There are annually two crops of betel-nut: one in the second month after the summer solstice; the other in the two months which precede the shortest day. The last crop is superior both in quantity and quality. The nut, on being cut, is skinned in the course of two days, and put into a large pot with as much water as will cover it two inches. It is then boiled for about three quarters of an hour, until a white scum rises. The largest are then cut into eight pieces, and the smallest into two, with the others in proportion to their size. During the four following days they are spread out in the sun to dry, and every night they are gathered in a heap. When the fruit has been allowed to approach too near to maturity, the nut loses its colour; and a deceit is attempted, by adding a little reddle to the water in which it is boiled. This frequently deceives the consumer, but never the experienced dealer; and seems to be done purposely to enable him to defraud the unwary.

> A garden of 1000 trees, allowing eight cubits square for each tree, ought to contain rather more than 34 acres; but a young garden, containing trees at sixteen cubits, will require  $8\frac{1}{2}$  acres. it receive a sufficient supply of water from a reservoir, it requires the constant attendance of two men and two buffaloes; but if it be watered entirely by the Capily, it requires an addition of two men and four oxen. The rent in the first case is 25 Fanams for the hundred trees, and in the latter case only 12. The labour of two men and four oxen is therefore estimated at 130 Fananis a year, and we may allow 120 for two men and two buffaloes. The great digging of the garden requires additional labourers to the amount of 40 Fanams. The nut is prepared by a man who receives two Dudus for every Maund, or about 6 Fanams for the garden. The bunches of nuts are cut by a person of the Bayda cast, who

gets 3 Fanams for the thousand bunches, or about 10 Fanams for CHAPTER the garden. The whole annual expense therefore of a garden of 1000 trees is about 426 Fanams. The produce is reckoned from 40 August 21. to 60 Maunds; the average is 50, which, for each tree, is exactly the same quantity that was said to be procured at Madhu-giri. Nothing is paid to the Amildar for the plantains or other fruit; but on this account the custom-house, according to the size of the garden, charges annually from three to five Fanams. Where the Capily is used, the rent for each tree is rather under a penny. When the reservoir supplies the water, it is rather above two pence. Even in this case, when the trees are at 16 cubits distance, the rent of an acre does not exceed 20s.; which is less than rice would give, and not a third part of what is paid for the same quantity of ground at Madhu-giri. On the same produce, the rent is rather greater here; so much superior at the former place is the skill of the cultivator. The Areca tree is never cut till its leaves have turned brown. Its stem has then acquired great hardness, and in building cottages is very useful.

protection of the Dáséris, who assemble round any person guilty of this offence, and allow him no rest, until he bestows on the animal a funeral, that will cost from 100 to 200 Fanams, according to the number of Dáséris that have assembled. The proprietors of the gardens used formerly to hire a particular class of men, who took these animals in nets, and then by stealth conveyed them into the gardens of some distant village; but, as the people there had recourse to the same means, all parties have become tired of this practice. If any person freed the poor people by killing these mis-

chievous vermin, they would think themselves bound in decency to make a clamour; but inwardly they would be very well pleased; and the government might do it, by hiring men whose consciences

criminal to kill either of them. They are under the immediate

The monkies and squirrels are very destructive, but it is reckoned Monkies and

VII.
August 21.
State of the plantations.

CHAPTER would not suffer by the action, and who might be repaid by a small tax on the proprietors.

The Marattah invasion has ruined one half of the gardens; the trees having been cut for the cabbage, which is composed of the young leaves collected, at the summit of the tree, in a large hud. New gardens are now planting without advances from government. Many of the old proprietors, having been reduced to poverty, have sold their right of replanting to others, who were in better circumstances; for all palm-gardens become private property, and may be sold or mortgaged, which, in the Rája's dominions, is not the case with any land that is cultivated for grain. The proprietors complain, that for old trees they are obliged to pay the same rent as for young ones. An old garden thus becomes much more valuable to the government, as on the acre there will be more trees that pay rent. If allowed to live to the full age of 80 years, 44 will pay rent; but, if cut at 45 years of age, when they begin to decay, 3 only would pay. The produce of the country however suffers by allowing the trees to live after they begin to decay; and as the profits of the cultivator are at present sufficiently great, they might be allowed to cut the trees whenever they pleased, by fixing on the ground a rent equal to the present: the fixing the rent on the tree, is indeed a bad custom for all parties.

Kitchen gardens.

In the country between Sira and Seringapatam, there are scarcely any kitchen gardens. The farmers have a few spots, where for family use they raise greens; but I see no gardeners who make this business a profession, except in the island of Seringapatam, and in the country to the eastward of the Durgas, as it is called, or that which lies to the eastward of the chain of hills which runs north from Capala-Durga, and on which there are so many fortified strong-holds. 22d August.—I went three cosses to Arulu Gupay. Except the

August 22. Strata.

22d August.—I went three cosses to Arulu Gupay. Except the ridge of hornstone hills on my left, and a short detached ridge on my right, the country was free from hills. The soil was however

by no means so good as that in the level country which lies between CMAPTER the Durgas and the ridge of hornstone; for in many places the rock appeared above ground, and lumps of white quartz almost August 22. intirely covered many fields. The rock here was gray granite. I believe the hornstone is confined to the ridge in which Doray Betta In the small ridge to my right, the rocks were gray is situated. granite; the black-stone already described as accompanying this in the eastern Ghats; and the same containing white spots, which probably were quartz.

At a small village by the way, I was shown a well, from whence Shidy munnu, what the natives call Shidy munnu had been taken. It was in the an earth. back yard of a Brahman's house. About two months ago he had dug 20 feet through the common soil of the country, which in many places is very deep. He then came to a stratum of this substance, which he continued to procure until prevented by water, It is a loose scaly earth, of a silvery white colour, and is mixed with small fragments of quartz. It is so friable, that it cannot be handled without falling to pieces, and is no doubt Schistose Mica in a state of decay. The micaceous matter is washed off by water, and, in the houses of inferior persons, serves the same purposes that the powdered mica, or abracum, does in the palaces of the great. They are in fact the same, only the abracum is purer. Shidy munnu is said to be found in great quantity near Colar.

Arulu Gupay is a large village in the Hagalawadi district. It is Arulu Gupay, fortified with a mud wall and ditch; but its market, which is a and a temple built by Shostreet running the whole length of one side of the town, is quite lun Ráya. defenceless. It contains about a hundred houses, and a temple of curious workmanship dedicated to Narasingha. It is not of great size, but the whole is built of what the natives call Sila Cullu, or image-stone, which is indurated pot-stone. This has been cut and carved with great pains and industry, but is totally devoid of elegance or grandeur. The general design is clumsy, and the execution of the figures miserable. It wants even strength, the usual

August 22.

CHAPTER concomitant of clumsiness among the buildings of rude nations; and the walls, although not above fourteen feet high, and built of large stones which have suffered no injury, are yielding to the pressure of the roof, and probably will soon fall. It is said to have been built by one of the Sholun Rayas.

August 23. Appearance of the country.

23d August.—In the morning I was detained by a very heavy rain, which has given the people high spirits. In the afternoon I went two cosses to Turiva-Caray, the residence of an Amildar. The country afforded a melancholy prospect. Like that near Bangalore, and the other places toward the eastern Ghats, it rises into gentle swells, and occasionally projects a mass of naked granite, or of quartz blackened by iron; but it has once been completely cultivated; and every spot, except those covered by rock, bears marks of the plough. Scattered clumps of trees denote the former situations of numerous villages: all now, however, are nearly deserted. I saw only two houses; and a few fields ploughing for Horse-gram seemed to be the commencement of cultivation, from the time the country had been laid desolate by the merciless army of Purseram Bhow.

Turica Caray.

Turiva-Caray consists of an outer and an inner fort, strongly defended by a ditch and mud wall. It has besides, at a little distance, an open suburb, and contains 700 houses; but is by no means completely rebuilt. It has no merchants of any note; but contains 20 houses of Dévánga weavers, and 150 of farmers. It possesses two small temples, similar to that at Arulu Gupay; and which, like it, are said to have been built by a Sholun Raya, who was contemporary with Sankara Acharya, the restorer of the doctrine of the Vedas.

Religious buildings.

This prince is very celebrated, by having built temples throughout the country south from the Krishna river. All of them that I have seen are small, and entirely built of stone. Their architecture is very different from the great temples, such as that at Kunji; the upper parts of which are always formed of bricks, and whose most conspicuous part is the gateway. This last mentioned system of

architecture seems to have been introduced by Krishna raya, of CHAPTER Vijaya-nagara; at least, the 18 most celebrated temples in the lower Carnatic are commonly said, by the Bráhmans, to have been rebuilt August 23. by that prince: for it must be observed, that scarcely any temple of celebrity is admitted to have been founded in this Yugam, or age of the world; and many of them are supposed to be coeval with the universe. The small rude temples so common in the country, and which, from the simplicity of their form, are probably of great antiquity, are all dedicated to Saktis, or to spirits worshipped by the low casts, and never to any of the great gods. Many of them, no doubt, are of very late erection; but they seem to me to preserve the simple form of temples erected by rude tribes; and the worship performed in them appears to be that which prevailed throughout India before the introduction of the 21 sects which the Brúhmans reckon heretical; although some of them were probably antecedent, at least in southern India, to the three sects of Bráhmans who follow the doctrine of the Vedas.

This place formerly belonged to the Hagalawadi Polygars, who, Buildings by although called Chica Nayakas, or little chiefs, seem to have been a the Hagala-wadi Polypowerful family. One of them, who lived about 250 years ago, gars. constructed in this neighbourhood four temples, and four great reservoirs. According to the legend, Ganésa supplied him with money for carrying on these. This god appeared to the chief in a dream, informed him that a treasure was hidden under an image which stood in the suburbs, and directed him to take the money and construct these works. The treasure was accordingly found, and applied as directed. The image, from under which the treasure had been taken, was shown to me; and I was surprised at finding it lying at one of the gates quite neglected. On asking the reason, why the people allowed their benefactor to remain in such aplight, they informed me, that, the finger of the image having been broken, the divinity had deserted it; for no mutilated image is considered as habitable by a god. At one of the temples built with this money,

August 23.

CHAPTER I saw a very fine black stone, well polished, and cut into a rude imitation of a bull. It was about eight feet long, six high, and four broad; and seemed to be of the same kind with the pillars in Hyder's monument at Seringapatam. The quarry is six miles distant. The reservoir here is in very fine condition, and was constructed with Ganesa's treasure. It formerly watered some excellent Arcca gardens; but, in consequence of Purseram Bhow's invasion, most of the trees perished. For some days his head quarters were at this place. The coco-nut palms, that formerly surrounded the betel-nut gardens, still remain, and mark their extent. The Amildar says, that he has only one half of the people that would be necessary to cultivate his district, and that most of them are destitute of the necessary stock.

Angust 24 Strata.

24th August.—I was detained all day at Turiva-Caray by the violence of the rain. The strata here consist chiefly of gray granite, or gneiss; for the matters composing it are sometimes nearly stratified, the dark green mica, or talc, being in some strata much more predominant than in other. This gives it a veined appearance; but it is perfectly solid, and, except this appearance, has nothing of a slaty texture. Here may be observed beds parallel to the strata of granite, and consisting entirely of this green matter in a state of decay. Its very greasy feel makes me suspect that it is rather tale than mica. Here also, as well as in many parts of the country, the gray granite is intersected in all directions by veins of reddish felspar, intermixed with fragments of white quartz. These veins are frequently a foot wide; and sometimes, in place of being disposed in veins, the felspar runs in beds, or strata, which are parallel to those of the granite, and are several feet in width.

August 25. Appearance of the country.

25th August.—In the morning I went two cosses to Cada-hully, a small village fortified with a mud wall. The country nearly resembles that between Arulu Gupay and Turiva-Caray; but the soil is more inclined to be stony. It is, however, in a rather better state of cultivation, and perhaps a fourth part of the arabie fields is now

occupied. At this village there was a sheep-fold, strongly fortified CHAPTER by a hedge of dry thorns, and containing four huts, which the shepherds usually occupied. These people, alarmed at my appear- August 25. ance, and suspecting that I came to take away their flocks for the use of the army, did not approach the village all night; but preferred exposing their cattle to the danger of tigers. These beasts of prey are said to be numerous here, and at night frequently prowl under the walls; we therefore burned fires round the tents, as was our usual practice in suspicious places. My motive for stopping at this poor place was, to examine the quarry from whence the fine black stone used in Hyder's monument was taken. When I assigned this reason to the people, it appeared so absurd to them, that their fears were greatly increased.

This quarry is situated about half a mile east from the village, Quarry of and rises in a small ridge about half a mile long, a hundred yards wide, and from twenty to fifty feet in perpendicular height. ridge runs nearly north and south, in the common direction of the strata of the country, and is surrounded on all sides by the common gray granite, which, as usual, is penetrated in all directions by veins of quartz and felspar; but neither of these enter the quarry.

This stone is called Caricullu, or black-stone, by the natives, who give the same appellation to the quartz impregnated with iron, and to the brown hæmatites; and in fact they all run very much, into one another, and differ chiefly in the various proportions of the same component parts; but have a certain general similitude easily defined, and are found in similar masses and strata. The black-stone of this place is an amorphous hornblend, containing minute, but distinct rhomboidal lamellar concretions of basaltine. that it is the same stone with that which by the antients was called Basaltes, and which was by them sometimes formed into images, as it is now by the idolaters of *India*.

The surface of the ridge is covered with large irregular masses,

August 25.

CHAPTER which, where they have been long exposed to the air in the natural process of decay, lose their angles first. When these masses have thus become rounded, they decay in concentric lamellæ; but where the rock itself is exposed to the air, it separates into plates of vurious thicknesses, nearly vertical, and running north and south. In the sound stone, there is not the smallest appearance of a slaty texture, and it splits with wedges in all directions. The north end of the ridge is the lowest, and has on its surface the largest masses. It is there only that the natives have wrought it; they have always contented themselves with splitting detached blocks, and have never ventured on the solid rock, where much finer pieces might be procured than has ever yet been obtained. The Buswa, or bull, at Turiva-Caray, is the finest piece that I have seen.

Ballapum, or pot-stone.

Immediately north from the village is a quarry of Bullapum, or pot-stone, which is used by the natives for making small vessels; and is so soft, that pencils are formed of it to write upon books, which are made of cloth blackened, and stiffened with gum. the books, and the neatness of the writing, are very inferior to the similar ones of the people of Ava, who, in fact, are much farther advanced in the arts than the Hindus of this country. pot-stone separates into large amorphous masses, each covered with a crust in a decaying state; and some of them are entirely penetrated with long slender needles of schorlaceous actynolite.

Calcareous tufa.

In the same place I found the calcareous tufa in a solid mass, and procured a specimen distinctly marked with the impression of a leaf.

Quartz.

Immediately parallel, and contiguous to the pot-stone, is a stratum of quartz in a state of decay; which separates into schistose plates, disposed vertically, and running north and south.

Sila Cullu.

At Haduna Betta, or Kite-hill, a coss east from Belluru, masses of a harder pot-stone, called Sila Cullu, may be procured; and from thence probably Sholun Ráya conveyed it to build his temples at Arulu Gupay, and Turiva-Caray.

26th August.—In the morning I went three cosses to Belluru. CHAPTER The greater part of the country consists of barren heights covered with low bushes, and has never been cultivated. More than one August 26. half of the arable fields appear to be now waste; but near Belluru of the counthere is a good deal of fine rice-ground, and more of it is under the try-Kartika crop than I have seen in any other place. The tank of Belluru is a fine work, and at present contains water to ripen 40 Candacas of seed, sowing at 200 Seers a Candaca. Another heavy rain will secure them in 30 Candacas of the Vaisakha crop. Here the sprouted-seed cultivation is preferred to all others. One half of the cattle died last year of the epidemic distemper. There was plenty of forage. The people have not suffered from famine since the invasion of the country by Lord Cornwallis; but on that occasion their misery was terrible. On the approach of the British army, the Sultan laid waste the whole country between this and the capital, and forced the inhabitants of the open country to retire to the hills, where they built huts, and procured provisions in the best manner that they could; no steps having been taken by their prince to obviate the famine likely to ensue. They were chiefly supported by the grain of the small villages that are hid among the hills and woods, and which it was not thought necessary to destroy. A large proportion, however, perished of hunger, or of the diseases following too scanty a diet; and in the whole Nágamangala country, of which this forms a part, one half of the inhabitants are now wanting, although they have had eight years to recover. This is the calculation of the officers of government. To judge from the desolation that I see around me, I should conclude the loss to have been greater.

In this part of the country a good many sheep are bred: in the Sheep. morning I met with three large folds of them.

To the eastward of Belluru is a range of barren rocky hills. One Hills called of them rises to a considerable height, and is called Haduna Cullu Betta. Betta, or Kite-rock hill, from its abounding with that kind of bird.

VII.

CHAPTER So far as is known to the natives, these hills produce neither wood nor ore of any use.

August 26. Bellurn.

Belluru is a large town, and both suburbs and citadel are strongly fortified with a mud-wall, and ditch. The walls of the citadel have been lately repaired; but those of the suburb are in the same ruinous state in which, on the approach of Purseram Bhow, they were left by Tippoo's troops.

Worship of the village deity by the Gauda.

In all this part of the country it has been customary, when a new village was founded, for the person appointed to be hereditary Gauda, or chief, to place a large stone in or near the village. This stone is called the Curuvu Cullu, or calf-stone, and is considered as representing the Grama Dévaru, or god of the village. The hereditary Gauda always officiates as Pújari, or priest; and at the annual village feast, after having rubbed it with oil, offers a sacrifice, with which he feasts his relations and the chief men of the place.

Customs of the Cummay Brahmans.

The Cummays, or as they are called by the Mussulmans, the Cummavar, are a kind of Bráhmans different from the others of the country; but I could not learn whence the difference arose. They eat in common with the others, but do not intermarry. They consist of four tribes, which never intermarry, and are called Canara, Arava-Tocala, Urichy, and Boburu Cummays. The three first tribes are of Karnata descent; the last are of Telinga extraction. They are of the same Gotrams, or families, with the other Bráhmans, and like them are divided into three sects, the Smartal, Sri Vaishnavam, and Madual; but some of them are of a sect called Bhagavata. These, although they follow Sankara Achárya, wear the mark of Vishnu; and their name implies that they are worshippers of that god. They observe the Ekadasi fasts at the same time with the Tayngala Sri Vaishnavam Bráhmans, which occasionally differ some hours from those observed by the Smartal. These fasts have given still farther room for differences among the bráhmans, the Vadagalay Sri Vaishnavam, the Vaisraya Mata Maduals, and Utraya Mata

Maduals, all differing from each other, and from those before men- CHAPTER tioned; and, as might reasonably be expected on such a subject, they dispute about the proper time with great bitterness. length of time for which the fast should last has given rise to other disputes; some thinking that they ought to abstain from eating 24 hours; others, that the fast should be protracted to two days. In these fasts, all those who aim at being thought good men abstain totally from both food and drink. Lokika people, or those who prefer to their duty the gratification of their appetites, satisfy the cravings of their stomachs with fruit. The greater part of the Vaidika Bráhmans here, although they employ much of their time in reading the Vedas, or eighteen Puranas, do not pretend to understand either. They get a copy of some portion of either of these books, and every day employ a certain number of hours in reading it aloud, which they perform with a most disagreeable cant, and twang through the nose. This, however, they consider as sufficiently meritorious to entitle them to the love of god, and the veneration of men; and a large proportion of their countrymen are of the same opinion.

The August 26.

27th August.—I went three cosses to Nágamangala. The country August 27. through which I came resembles what I saw yesterday; but the greater part of the heights, although barren, appear as if they had been formerly cultivated. At present very little of the country is under cultivation, and it looks very bare. Within sight were many ruinous villages.

Nágamangala is a large square mud fort, and contains in its cen- Nágamanter a square citadel, which, like that of Chica Nayakana Hully, leaves gala. room in the outer town for one street with short lanes on each side. In the inner fort are two large temples, and some other religious buildings, in good repair; and a Mahal, or palace, a Cutchery, or public office, and several large granaries, in ruins. The town and all these public buildings were erected by a prince named Jagadéva Ráya, who seems to have been of the same family with the Rájas

VII. August 27.

CHAPTER of Mysore; for the two houses had frequent intermarriages. cording to tradition, Jagadéva Ráya, who founded this city, lived about 600 years ago. His dominions extended from Jugadera-Pattana on the east, to the frontiers of the Manzur-ablad Polygar and of the Ikeri Rája on the west. They were bounded by Hagulawadi on the north, and included the Belluru district. On the south they were bounded by the territories of the Raja of Mysore, and of the Vir'-Raya, who possesses the country that we call Coorg, and who was then proprietor of Maha-Rayana-Durga. About three centuries ago, the successor of Jagadera Raya, dying without children, was succeeded by his kinsman, the Curtur of Mysore. This town was originally called P'hani-pura, or the city of snakes; but its name has been changed into Nagamangala, which signifies the blessed with serpents. Before the invasion of Purseram Bhow it contained 1500 houses, which are now reduced to 200, that are scattered amid the ruins. At the same time the Marattahs destroyed 150,000 palm trees. In the whole district there are only about one half of the necessary cultivators, and they come in slowly, the Nizam's country being at too great a distance. Forty houses only have been built since the place received Cowl, or protection from the English. It possesses three fine reservoirs; but for the last four years so little rain has fallen, that very little of the rice-ground has been cultivated, and the proprietors have not been able to replant their palm-gardens.

Fish.

I observed the people fishing in the small quantity of water that is in the reservoirs; and was told, that small fishes are to be found in all the tanks of the country, although they frequently dry up, and have no communication with streams from whence they might get a supply. The eggs, no doubt, remain dry in the mud, and are not hatched until they have been moistened by the return of the water.

Emigration.

The greater part of the inhabitants of Nágamangala are what are here called Tigularu, or Taycularu; that is to say, are descended

from persons who came from countries where the Tamul language CHAPTER is spoken. According to tradition, they left Kunji about 700 years ago; but they can give no account as to the occasion of their an- August 27. cestors deserting their native country. Most of them have lost their original language: but they never intermarry with the native Karnátas. Some of them can read the books in the Tamul language that belong to their cast.

greater sum than what he agreed to give to the Amildar, part is

every village a piece of ground is allotted for the Gauda. If he rents the village, he pays nothing for this land, and has it free on account of his trouble; but if another person manages the village, the hereditary Gauda pays rent like any other farmer. If the crop be very deficient, the renter is not obliged to fulfil his agreement, as he can raise little or nothing from the farmers; but if he can raise 80 or 90 per cent. of his expected collections, he must make up the balance. The farmers have a fixed property in the fields, which are let according to a valuation made by Jagadéva Ráya; and so long as a man pays his rent according to that valuation, he cannot be turned out of his possession. The Sultan made a new valuation, but never realized it; for the outstanding balances always at least equalled the additional imposts. The rice ground always pays by a division, and the dry-field by a money-rent. Ground that has not been occupied for some time pays no rent for the first year that it is brought into cultivation; a fourth part of the valued rent is laid on every succeeding year; so that on the fourth year it pays a full rent. Almost every where in India somewhat similar prevails; and the custom arises from a conviction that rest injures the soil. In some places it is necessary to cut trees;

taken from him; but a small or reasonable profit is allowed.

but that is not the case here.

In this district the Gaudas, or chief farmers, partly rent the vil- Manner of lage, and partly collect, on the public account, whatever can be had lands. from the inhabitants. If a renter receives from them a much

VII.
August 27.
Strata.

Immediately west from Nagamangula is a hill, which consists chiefly of a talcose argillite, approaching very near to a slity potstone; the natives indeed call it by the same name; and they use it for pencils as they do the other. Its structure is slaty, and it is disposed in strata much inclined to the horizon, and running north and south. Some of it is reddish, and some has a greenish line. Intermixed with it are several large masses of white quarts. The rock at the town is granite.

August 28. Appearance of the country.

28th August.—In the morning I went three cosses to Chinna. The country is more barren than any that I have seen for some time, and the heights rise into low rocky hills. Some parts of it are covered with low trees, especially with the Elate sylvestris, or wild-date. Chinna is a poor ruinous place. It was formerly of some note; but about 30 years ago it was destroyed by the Marattals army, then attacking Hyder, and it has never since recovered.

Chinna.

Company's cattle.

I found near this a berd of draught oxen belonging to the Company, and in excellent condition. This seems to be owing to the care which is bestowed, during the rainy season, on collecting hay. By taking the same trouble, the herds of the natives might be kept in a very different state from that in which they now are.

Jaina Banajigas. Here are a set of people, among whom is the chief of the village, that are called Jaina Banijigas. They seem to be different from those called Jaina, as they do not wear the Linga. There are about forty families of them, scattered through the villages north and east from Seringapatam. The Gauda relates, that Rama Anuja Achárya, having obtained the victory in a great dispute with the priests of Jaina at Tonuru, caused these, with as many of their followers as were obstinate, to be ground in oil-mills. The remainder, who had been converted by this powerful mode of argument, received Chakrántikam from the Bráhman, and their descendants are these Jaina Banijigas. They neither eat nor intermarry with Jainas who retain their former worship; but adore Vishnu, and are disciples of one of the hereditary chiefs of the Sri Vaishnavam Bráhmans, who gives

them Chakrantikam and holy water, and accepts of their Dharma. They are traders, farmers, and cultivators.

CHAPTER VII.

29th August.—I went one coss to Mail-cotay, or the lofty for- August 29. tress. The country is steep, and nearly uninhabited. There are, of the counhowever, many places on the ascent that have a good soil, and that try. have formerly been cultivated. The other lands are covered with copse wood.

Mail-cotay, in the Sanskrit language, is called by the uncouth Mail-cotay. name of Dakshina Bhadarikúsramam. It is situated on a high rocky hill, and commands a noble view of the valley watered by the Chveri, and of the hills of Mysore to the south; of those of the Ghats to the west; and toward the east, Savana-Durga and Siva-Gangá close the prospect. It is one of the most celebrated places of Hindu worship, both as having been honoured with the actual presence of an Avatara, or incarnation of Vishnu, who founded one of the temples; and also as being one of the principal seats of the Sri Vaishnavam Bráhmans, and having possessed very large revenues. About forty years ago, it contained almost a thousand houses inhabited by Brúhmans, who did not allow many of the Súdras to remain in the place. A few shop-keepers and Satánanas composed the remainder of the inhabitants. Soon after this period the Marattahs gained a victory over Hyder, and encamped for some time on the south side of the hill. The Bráhmans here were too cunning to be caught, and the place was entirely deserted; but even the temples of their gods did not escape Marattah rapacity. For the sake of the iron-work, and to get at it easily, they burned the immense wooden Raths, or chariots on which the idols are carried in procession; and the fire spread to the religious buildings, some of which were entirely consumed. A sufficient number, however, still remain. The three principal are, a temple placed on the very summit of the rock, and dedicated to Narasingha, one of the Avataras of Vishnu; the great temple of Chillapubla Raya; and a noble tank.

VII.
August 29.
Temple of
Chillapulla
Rhya.

The large temple is a square building of great dimensions, and entirely surrounded by a colonnade; but it is a mean piece of architecture, at least outwardly. The columns are very rude, and only about six feet high. Above the entablature, in place of a balustrade, is a clumsy mass of brick and plaster, much higher than the columns, and excavated with numerous niches; in which are huddled together many thousand images composed of the same materials, and most rudely formed. Unwilling to give offence, I did not see any of the interior parts of it, although no remonstrance would have been made against my entering the inner courts; but I wished to get some information from the Bráhmans; and my not presuming to approach so holy a place evidently gave satisfaction. The present structure was built, or at least put into its present form, by Ráma Anuja Achárya; but, as I have before mentioned, the temple itself is alleged to be of wonderful antiquity, and to have been not only built by a god, but to be dedicated to Krishna on the very spot where that Avatara performed some of his great works. though the image represents Krishna, it is commonly called Chillapulla Ráya, or the darling prince; for Chillapulla is a term of endearment, which mothers give to their infants, somewhat like our word darling. The reason of such an uncommon appellation being given to a mighty warrior is said to be as follows: on Ráma Anuja's going to Mail-cotay, to perform his devotions at that celebrated shrine, he was informed that the place had been attacked by the Turc king of Dehli, who had carried away the idol. The Bráhman immediately set out for that capital; and on his arrival he found that the king had made a present of the image to his daughter; for it is said to be very handsome, and she asked for it as a plaything. All day the princess played with the image; at night the god assumed his own beautiful form, and enjoyed her bed; for Krishna is addicted to such kinds of adventures. This had continued for some time when Ráma Anuja arrived, and called on the image, repeating at the same time

some powerful Mantrams; on which the idol immediately placed itself on the Bráhman's knee. Having clasped it in his arms, he called it his Chillapulla, and they were both instantaneously conveyed to Mail-cotay. The princess, quite disconsolate for the loss of her image, mounted a horse, and followed as fast as she was able. She no sooner came near the idol than she disappeared, and is supposed to have been taken into its immediate substance; which, in this country, is a common way of the gods disposing of their favourites. A monument was built for the princess; but as she was a Turc, it would have been improper to place this building within the walls of the holy place; it has therefore been erected at the foot of the hill, under the most abrupt part of the rock.

CHAPTER VII. August 29.

The tank is a very fine one, and is surrounded by many buildings Fine tank. for the accommodation of religious persons, and for the intended recreation of the idols when they are carried in procession. Were these kept in good order, they would have a grand appearance; but the buildings are filthy and ruinous. The natives believe, that every year, at the time of the grand festival, the water of the Ganges is conveyed by subterraneous passages, and fills this tank; yet they candidly acknowledge, that not the smallest external mark of any change takes place. On this occasion it is customary to throw in bits of money. My attendant messenger, who is a Bráhman, says, that he was present when all the water was taken out by orders from the Sultan, who expected by this means to find a great treasure. All that was found, however, was a potful of copper money.

longing to the

The jewels belonging to the great temple are very valuable; and Jewels beeven the Sultan was afraid to seize them. They are never exposed to the risk of being carried away by any desperate ruffian, but are always kept in the treasury at Seringapatam; and during the time of the festival are sent to Mail-cotay, under a strong military guard. This property was respected by the British captors, and the jewels. are sent to the place as formerly.



The town has never recovered itself since the first Marattah in-Hyder, indeed, allowed to the Brahmans the full enjoyment of their revenues; but his son first reduced their lands to 6000 Pagodas a year; then to four; then to two, and at length to one thousand; finally, he entirely took away their land, and gave them an annual pension of 1000 Pagodas. After his fall, General Harris granted them lands to the amount of 6000 Pagodus; but at present. from want of cultivators, they produce only 4000, or 1343/. 3s. 5d. These lands are managed by an Amildar, appointed by the government, and accountable to it for his conduct. The houses at present amount to 300, of which 200 are inhabited by Brithmans. The only people here who live by industry are twenty families of weavers, and a few shopkeepers. In the great temple four hundred Brühmans form the higher class of the servants; and from thence they receive a daily allowance. There is also a class of servants of a Sudra extraction, and consisting of musicians, dancing-girls, and Vaishnavam, or Sathnanas. The houses here are better than any belonging to Hindus that I have seen above the Ghats; for the begging of the Bráhmans is a lucrative employment, and several Gurus make this their chief place of residence. The houses are roofed with tiles, and have an odd look, from being entirely covered with thorns. This is done to prevent the monkies from unroofing the houses; for those mischievous animals are here very numerous, and to destroy them is reckoned a grievous sin. The very person who applauds his Guru for having ground the Jainas in an oil-mill. will shudder with horror at the thought of a monkey's being killed.

Principles of the *Hindus*.

I expected here to be able to get some account of the Mysore family, who long had been generous benefactors to the Bráhmans of Mail-cotay; but in this I was entirely disappointed. I was told, that they gave themselves no concern about worldly affairs; and that to them the history of the low casts was of no consequence. They

seem not at all interested about their young Raja; and the family CHAPTER has been so long in obscurity, that it is no longer looked up to with awe; which among the natives in general is the only thing August 29. that supplies the place of loyalty. Their military men are the only class that seem to have a strong attachment to their princes; and they serve faithfully, so long as they are regularly paid, or gratified by a permission to plunder; but provided these pay them better, they are equally willing to serve a Mussulman or Christian leader, as a Hindu prince. Terror is therefore the leading principle of every Indian government; and among the people, in place of loyalty and patriotism, the chief principles are, an abject devotion to their spiritual masters, and an obstinate adherence to custom, chiefly in matters of ceremony and cast.

30th August.—I remained at Mail-cotay, endeavouring to get a August 30. fuller account of the Sri Vaishnavam Bráhmans, or Aayngar; but I wam Bráhhad not so much success as I expected. I could not procure an mans. interview with any of the Gurus; for each of them an excuse was made; some were sick, some were fasting, and most of them were absent on their duty of begging, as it is called. I, however, met with a Vaidika Bráhman, who was a very accurate man; and it was not owing to either want of abilities or inclination in him, that I did not procure the information which I wanted. He was of the Tayngala sect, and said that the Wadagalay separated from them in the time of Védánta Achárya, who was born about 30 years after the death of Ráma Anuja. Tayngala signifies southern language, while Wadagalay signifies that of the north. In the country where the Tamul language prevails, the former are most numerous; and the Wadagalay are most numerous in Telingana; but there are Brahmans of both sects in either country; nor does the difference in opinion prevent them from intermarrying, if they be of the same nation.

The books of the Brahmans do not mention the time when the Heretical heretical sects arose; they only notice the persons by whom the sects.

Vol. II. I. August 30.

CHAPTER false doctrines were first promulgated. These sects are, or were, eighteen in number; and their authors, according to this Brahman, extracted their doctrine from the six books of the eighteen Purilnas that are reckoned of a bad nature. These sects were very prevalent, and the Brahmans very low, till the time of Sankara Acharya, whom even this Sri Vaishnavam acknowledges to have been Iswara himself, who about 1520 years ago entered a woman of the sacred cast, and was born at Sringa-giri, near the western Ghats. He had great success against the heretical sects, and entirely destroyed twelve of them; but was contented to permit six of them to exist for some time longer. These six sects were, Pashandi, Charvaca, Buddha, Jaina, Vamana, and Pashu or Ganapatyum. The Pashundi include all the people who wear the Linga; and the Pundurums, or all those that worship Siva, and pretend to be exempted from the authority of the Brahmans. These are still very numerous, but consider this name as a reproach. The Charcaca worship a bull. There are many Jainas about Chin'-raya-pattana. A few Buddhas remain in the Codagu country, which we call Coorg. The Vamanas are followers of a person of that name, and deny altogether the existence of a deity. The Ganapatyam believe in God; but allege, that the Védas and Sástrams, with all the books esteemed sacred by the Hindus, are mere fables. These two last sects are very thinly scattered, and are held in great abhorrence; on which account they do not openly profess their doctrine, but call themselves by some other name. My informant does not know whether any of the other twelve sects now remain and profess their doctrine; but he says, that at any rate by far the greater part were obliged to adopt some of the six doctrines permitted by Sankara Acharya to remain, as being true. How this could happen, or how a Smartal Brahman could admit the truth of the doctrines of an atheist or deist, I do not profess to understand. The fact, I suppose, is, that these six sects had influence enough with the governing powers to prevent

the intrigues of Sankara Acharya from having effect. It is certain, CHAPTER that long after his time by far the greater part of the people were not followers of his college, or Mata.

August 30.

About six hundred years after the time of Sankara Acharya, the Rama Anuja. snake Sésha entered a woman of the sacred cast at Sri Permaturu, and was horn as Ráma Anuja Achárya. At that time the greater part of the people who lived below the eastern Ghats were Páshandis; and of those who lived above the Ghats, the greater part were Jainas: but Ráma Anuja not only converted a great many Bráhmans from the doctrine of Sankara Acharya, but also persuaded many of the heretics to become followers of the Brahmans. Among others was Vishnu Vardana Ráya, a Jaina prince, and king of the whole country, who resided at Yadava-puri; that is to say, the city of the cow-keeper, a place that is now called Tonuru. By the assistance of this king, he converted the Jainas, and ground their obstinate priests in an oil-mill. As a Bráhman, he could not put these people to death; but having publicly convicted them of heresy, it became the king's duty to punish their infidelity. This great leader of the Brahmans made 700 Matas, or colleges, for Sannyásis; all of which, except four, have gone to ruin. appointed 74 hereditary chiefs, of every one of which the representative in the male line continues at present to enjoy his elevated dignity. The Sannyasis are considered as of the highest rank; but the hereditary chiefs will not receive from them either Chakrántikam or Upadésa; for this would be too humiliating an acknowledgment of superiority. Each Guru, married or unmarried, has a certain number of families, both Bráhmans and Súdras, that are hereditarily subjected to the authority of his college, or house. The Sannyásis are addressed by the title of Swámalu, or Swámyalu; the hereditary chiefs by that of Achárya. Every Bráhman in this country is called Swámi, or lord.

The appearance of Ráma Anuja being one of the most important eras in the history of southern *India*, I was anxious to ascertain the

August 30.

CHAPTER exact time of that event. The Bráhman who had hitherto given me information was not in possession of the book that contained an account of the life and actions of the founder of his sect, and which, I found, was considered as too sacred for profane eyes to behold. Having sent for the owner of the book, and requested permission for my informant to copy the date, he replied that he would not venture to take such a step without the advice and consent of the leading men in the place. A council was accordingly assembled at my tent, and it was judged allowable to give me the information which I wanted. To avoid delay, and to encourage the man, I offered the owner a small sum of money to pay the writer for copying the date, and of this he readily accepted. At two o'clock the whole party went to consult the book; and at seven in the evening, no one of them having returned, I sent for my first informant. told me, that, this having been a fast day, none of them, when I saw them, had eaten any thing; and that, immediately on leaving the tent, they had all dispersed, and could not be assembled without an order from the Parputty, or civil officer; and that singly no man would do any thing. Application having been made to the Parputty, he immediately called an assembly, and they agreed to copy for me a life or journal of the proceedings of Ráma Anuja, leaving out only such Mantrams and passages as were fit only for the ear of a Bráhman. Four or five hours. they said, would be sufficient; and my interpreter was ordered, until the work was finished, to attend his brethren the Brahmans at the temple.

Vairagis.

There is here a Matam, or convent of Vairagis, who claimed being my countrymen, as I belonged to the Bengal establishment. said, that their cast was descended from the children of persons of all kinds, who, not having had any heirs, have made a vow to the image of Ráma at Ayódya (Oude) to consecrate to his service their eldest son, should the god interpose, and grant them a family. Many of these consecrated persons have married, and the whole of

CHAPTER

their descendants are Vairagis. Their chief convents are at Aybdya, and Jaya-pura; but smaller ones are scattered in every part of India. Their Gurus are also Vairágis, but are always descended August 30. from the children of Bráhmans. They say, that in Hindustan proper the only Pújáris in the temples of Vishnu are the Bráhmans of their cast. In that country many of them are learned; but those here acknowledged their ignorance. They abstain from animal food, and hold in abhorrence the custom, which prevails here, of marrying their aunt's daughter. In every part of India a man's marrying his uncle's daughter is looked upon as incestuous. The Vairagis of Súdra origin always assume the appearance of beggars; but they frequently trade from place to place in horses, arms, pearls, shawls, and other valuable articles; and on such occasions, to secure their property, they travel in large bodies well armed; not trusting entirely to their professions of poverty. They never trade in shops. They are at constant variance with the people of a tribe called here Gossain (properly Goswami); and in the engagements that take place between these two sets of vagrants, lives are frequently lost. The forms assumed by the Vairagis in begging are various. Some of them constantly remain in some painful or difficult posture; and, according to the postures which they assume, are called Urdabáhu, or Ticrawalla. Some of them, called Paramahansa, or Digambara, go quite naked, with their hair matted, and thickened with dirt; these beg from door to door, frequently pretending to be idiots, and to live in wastes and woods on leaves and wild fruits. The remainder are called Rámanandi. There is in this country a set of scoundrels who call themselves Vairágis; but who are disowned by those who pretend to be really so, and are by them called Bersta. These fellows extort compassion by burning themselves with torches, and cutting themselves with swords. If possible, they surround a woman who is with child, and threaten to torment themselves before her, unless she gives them money. woman in general complies, being commonly tender-hearted, and

CHAPTER also being afraid lest her child should be disfigured by her looking VII. at their distortions and agonics.

August 30. Strata.

The hill on which Mail-cotay stands consists of many different kinds of rock; but to most of them, the French term Roche feuilletée seems applicable. They are all aggregates, with their component parts disposed in a striated or foliated manner. They are of very great tenacity, being extremely difficult to break, especially across the fibre; they split somewhat more easily in its direction, but even in that strongly resist all external violence. These rocks are disposed in vertical strata running north and south, and the fibres or laminæ are placed in the same direction. In small pieces this structure is often not easily discernible; but it is always very conspicuous in large masses, or when the rock begins to decay. The strata are intercepted by fissures crossing them at right angles; but never, so far as I observed, containing any extraneous fossil, such as quartz or felspar. In decay, this rock has a tendency to form long cylindrical masses, which from their fibrous nature have somewhat the appearance of petrified logs of timber. The most common of these strata are various kinds of gneiss, which may be cut here into pillars of any size, and afford admirable materials for fine buildings. Some of it is very small grained, and assumes the form which by some mineralogists is called regenerated granite. In some of the buildings here are columns of this kind, which are of an excellent quality, and cut remarkably well. The people could not tell from whence they had been brought. Many other strata consist of a granitel, composed of hornblend-slate, quite black, and mixed with white quartz. When broken longitudinally, the quartz forms veins; when transversely, it forms spots. It might perhaps be called a hornblend porphyry. Here are also strata of schistose Mica; one of which is decayed into a kind of earth called Nama, and is a source of some profit to the place. It is supposed to have been created by Garuda, or the mythological eagle on which Krishna rides; and near this is used by all the Sri Vaishnavam

Brahmans, and their followers, to mark their foreheads. Some of it CHAPTER is, for this purpose, sent even to Kási, or Benares. Some Vaishnavams work it by digging the whole substance out of the beds in August 30. which it lies, and throwing it into large vessels of water. It is well stirred about; and, while the mica swims, the fragments of quartz remain at the bottom, and are taken out by the hand. The mica is then allowed to subside, and forms into a mass, which is divided into small pieces, and afterwards made into balls by being moistened in water. These are sold for use, and are perfectly white.

> Difficulties of cating infor-

31st August.—In the morning my interpreter informed me, that August 31. last night, until a late hour, he had attended the council of Bráh- the Bráhmans mans at the temple. After a long deliberation, it was determined in communithat they would give him a verse, or Slókam containing the era that mation. I wanted to know, enigmatically expressed, as is usual in these verses. They also explained the enigma to him in the vulgar language, and gave him a copy of this, which he might show; but they enjoined him by no means to expose to profane eyes the Slókam, a request that he treated with great contempt. It was also determined, that they would neither copy any part of the book, nor permit it to be seen, under pretence of its having been carried away by the Marattahs. What could induce them to adopt such an excuse, I cannot Before a hundred people at my tent, and these the chief inhabitants of the place, a man venerated for his years, his learning, and his piety, declared himself possessed of the book, and received money to defray the expense of copying a part of it; and now he was not ashamed to declare, that thirty years ago he had been robbed of it. To do him justice, he offered to refund the money; but my interpreter refused it, having no orders to rescind the bargain. It had, indeed, been by his advice that I had made the advance. He alleged, that in his cast no promises of reward are looked upon as good for any thing; but that the immediate view of

August 31. Appearance of the coun-

CHAPTER the money produces strong effects; and, after receiving the money. the faithful performance of what a Bráhman undertakes may very generally be expected.

> I then went to Tonuru-Caray, by the Mussulmans called Muti Talau, or the pearl-tank, a name given to it by one of the Mogul officers who visited the place. From Mail-cotay it is distant three cosses. The intermediate country is very rough, containing only a narrow fertile band on the sides of a water-course, which, after heavy rain, conveys some water from Mail-cotay into the reservoir of Tonuru. This band is at present cultivated only in part, all the dry fields being entirely unoccupied. Although these are almost a continued bed of loose nodules of white quartz, they have formerly been cultivated; and to make room for the plough, the stones have in many places been gathered up into ridges. At present, the country is quite bare; but the remaining stumps show, that the whole way between the two places an avenue of trees formerly sheltered the road.

History of Ráma Anuja.

At Tonuru I found some intelligent Brahmans, who told me that the translation of the verses given me at Mail-cotay was a false one; and that the real meaning of them is, that Ráma Anuja Achárya was born in the year of the Kali-yugam 4118, or the year 1025 of the Christian era. These Bráhmans repeated another Slókam, which makes the birth of Ráma Anuja to have happened in the year of Sáliváhanam 932, or A. D. 1010, a difference only of 15 years.

The account of Ráma Anuja, given here, is as follows. Yadavi Puri, now called Tonuru, was formerly a place of great note, and the residence of a powerful king named Belalla Ráya. Nine princes of the same name had preceded him, and his empire extended to a great distance. Like his ancestors, he was a worshipper of Jaina; and it is said, that in his capital city seven hundred temples were dedicated to that god. At this time Ráma Anuja, having taught new opinions in the country below the Ghats, was persecuted by Shola Rája, or

the king of Tanjore, who was a strenuous supporter of the Smartal CHAPTER Ráma Anuja was obliged to retreat from this persecution, and come to the court of Belalla Ráya. The daughter of this August 31. prince was then possessed by Brimma Racshasu, a female devil, who rendered the princess so foolish, that she was unable even to dress herself. The king had carried his daughter to all the temples of his idol; and all his priests who were generally admitted to be very skilful magicians, had attempted to free the princess from the monster; but all these efforts were vain. Ráma Anuja having obtained permission to try his power, he presented the princess with some consecrated ocymum (Tulsi), and sprinkled her with holy water; on which she was immediately restored to her understanding. The king then declared, that he would follow Ráma Anuja as his Guru, and worship Vishnu; whereupon the Bráhman gave him the name of Vishnu Vardana Ráya, and bestowed on him Chakrántikam and Upadésa.

The priests of Jaina, as may be naturally supposed, were enraged with the Brahman for having converted their king; and a grand dispute took place before the whole court. After eighteen days of disputation, the Jainas were fully confuted: some of them took Chakrántikam, some made their escape, and the remainder were put to the terrible death which I formerly mentioned. The king then presented a large sum of money to his new Guru. With this that Bráhman pulled down all the temples of the Jainas, and with the materials built the great reservoir. He also repaired three temples of Vishnu that had long been quite deserted, and in one of them he resided three years. He then had a dream, in which Náráyana ordered him to go to Mail-cotay, and to repair the temple of Rámapriya. is the original name of the idol now called Chillapulla Raya; and I have already related the fable concerning the origin of that name; which was told here also, with very little variation. On his return from Dehli with the image, Ráma Anuja repaired the temple, and

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August 31.

CHAPTER promulgated the laws that are now observed by the A'ayngar Brûh-He resided there fourteen years; when, the Shola Raja that had persecuted him having died, he went to Sri Rangam, near Tritchenopoly, and there also had very great success against the infidels, converting them by means similar to those which were used at Tonuru.

Tonuru, or Yadava-Puri.

The only remains of the ancient city are some ruins of the walls, which are sufficient to show that they were of great extent. The three temples said to have been repaired by Rima Amja are in good preservation, and must either have been founded by him, or entirely rebuilt; which last is the most probable opinion. Before that time, they were perhaps small buildings belonging to a persecuted or newly established sect. Their present size is very considerable. The Sultan had converted one of them into a fort, and made it the residence of an Asoph, or lord lieutenant; but it has now been purified, and I found that an infidel could not be admitted within the gate. no place in the peninsula have I found that a European could get admission into the shrine, or chamber in which the idol is placed. In most cases, indeed, the door will be opened; but as there is no light in any of these places, except that of a glimmering lamp, I have never been able to discern the form of any of the idols that are worshipped by the Bráhmans: they are said, however, to be of the same form with the images without, thousands of which are placed about the temples as ornaments, and which any one may see, handle, or purchase. These are not at all objects of adoration; the divinity not having been placed in them by the powerful Mantrams of a Bráhman.

Great tank.

The reservoir, or Yadavi Nuddi, is a very great work. Two mountain torrents here had united their streams, and forced a way through a gap between two rocky hills. Ráma Anuja stopped up this gap by a mound, said to be 78 cubits high, 150 cubits long, and at the base 250 cubits thick. The superfluous water is let off

August 31.

by a channel, which has been cut with great labour through one of CHAPTER the hills, at such a height, as to enable it to water a great deal of the subjacent plain, which is three or four miles in extent. When the reservoir is full, it contains a sufficient quantity of water to supply the cultivators for two years; but owing to failures of rain, the water frequently continues lower than the opening of the outlet. Although the torrents bring down much sand, it so happens that the reservoir is never affected by that circumstance; for the two streams enter in such directions, as to force all the sand toward the extreme corners, without diminishing the main depth. A few years ago the Sultan destroyed this favourite monument of the great Hindu doctor, which had been built with the spoils of refuted heretics, and was hence doubly valued by every true follower of the Puranas. Tippoo cut a narrow trench through the mound; and the water, having got vent, rushed forth with such violence as to sweep away two thirds of the whole. Although the demolition of this work by Tippoo was but a just retaliation for the enormities by which it had been erected, nothing could be more absurd or impolitic, both as giving offence to his subjects, and as injuring the resources of the country. The motive that induced him to act so foolishly is doubtful. Some say, that he expected by draining the reservoir to find a great treasure, and that he thought he should be able to effect this without the demolition of the work, which, contrary to his wishes, was swept away by the violence of the torrent undermining the foundations. Others attribute the action to a sudden ebullition of bigotry, which was his ruling passion. Near the place there is a monument dedicated to one of the fanatical followers of Mahmud Ghizni, who had penetrated this length, and had here suffered martyrdom. Very early a monument had been erected over his grave, and the Sultan had buried one of the ladies of his family by the side of the stair which leads up to the tomb of the reputed saint. When he destroyed the reservoir, he had been on a

August 31.

CHAPTER visit to this sacred place; and his zeal against the infidels had been inflamed into rage by the recollection of the martyrdom: the monument of the Mussulman was enlarged, and endowed with the spoils which the Brahmans had torn from the priests of Jaina. The former establishment in the mausoleum of this fanatic is supported at the Company's expense; and a robust intelligent saint (Peer) receives annually 200 Pagodas, and performs the proper ceremonies. From the Mysore government the temples annually receive 300 Pagodas.

Amildar of Mail-cotay.

The town is increasing fast, and will, no doubt, be soon a considerable place; for orders were given by General Harris for the immediate rebuilding of the tank, and the Amildar has already made great progress in the work. This Brahman, whom Hyder, in one of his invasions of the dominions of Arcot, carried away from Kunji, has been appointed Amildar of the lands which were restored to the Brahmans of Mail-cotay. When informed of their conduct, he was greatly enraged, and sent immediately for the leaders of the council. He did this, partly to inform them of the necessity there was for performing their engagements with me; and partly, by the journey, to punish their folly. He told them, that as the English gentlemen had always protected the Bráhmans, there could be no reason for concealing their books, of which no one would attempt to deprive them. He then told me, that under the former government these poor people had got into such habits of lying, as a kind of skreen from oppression, that they were now utterly incapable of speaking the truth. The Bráhmans of Tonuru are very communicative, which the Amildar attributed to their poverty.

Strata.

The strata here are similar to those at Mail-cotay; but are so intersected by fissures, as to be of no use for building.

On the rising ground north from the reservoir a severe battle was fought between the Marattahs and Hyder. The latter was completely defeated, and all his army destroyed, except one corps, with which he fled into Seringapatam, passing by the western end of the CHAPTER hills.

1st September .- I went three cosses to the northern bank of the Sept. 1. Cavery, at Seringapatam. By the way, I examined the quarry of granite. gray granite at Chica Mally Betta, which is the best in the neighbourhood. It is about six miles north from Seringapatam. The workmen have never cut upon the solid rock, but have contented themselves with splitting the lower blocks that cover the surface of the hill, and a stone 12 cubits long is reckoned a very large one. Longer ones, if wanted, might no doubt be obtained by cutting into the solid rock. This granite, in its appearance, has nothing either of a fibrous or foliated texture; but in fact its parts are so disposed, that the stone splits much easier in one direction than in any other. The workmen cannot judge of this by external appearance; but they try the block by chipping it in various parts, until they find out the direction in which the wedge will have its most powerful effects. In decay, the plates of which the rock consists are abundantly conspicuous. This stone is easier wrought than that of Mail-cotay; but, owing to the coarseness of its grain, cannot be cut into such fine figures.

Chica Mally Betta and the French rocks, as we call them, are two Appearance small rocky hills, which rise up in the middle of the country between try. Tonuru and the Cavery. In no other place, except the Kari-ghat hill, is the surface too steep for the plough. All the low ground has formerly been cultivated, though in many places the declivity of the fields is great. North from the canals a very small portion of the arable land is at present in cultivation; and even under the canals there is waste land, although these noble works are now full of water, and send forth copious streams to all the fields between them and the river. Owing to the steepness of the ground, many of the rice plots are not above six feet square; and the ingenuity and labour with which they have been formed almost equal those of the Chinese terraces.

CHAPTER
VII.
Sept. I—4.
RiverCavery.

1st—4th September 1800.—I remained at Scringapatam repairing my equipage, and making ready for the journey. The Cavery is now full, and contains a large rapid stream; but its water is by no means clear, and is reckoned unwholesome. The town is so low, that at this season many of the houses are damp and unhealthy; and the air of the eastern end of the island is still more prejudicial to the human constitution.

## CHAPTER VIII.

## JOURNEY THROUGH THE PART OF KARNATA SOUTH FROM THE CAVERY.

N the 5th of September, I went one coss to Pal-hully. Owing to CHAPTER some mistake, my baggage missed the way; and, after having wandered the whole day, arrived in the evening with the cattle Sept. 5. so fatigued, that on the day following it was impossible to move.

6th September.—Pal-hully formerly contained a thousand houses; Sept. 6. but during the siege of Seringapatam, as it was in the immediate rear Pal-hully. of the camp of General Harris, it was entirely destroyed. A hundred houses have been rebuilt, and the inhabitants are daily returning. It is situated on the bank of the lower of the two canals that are Canals for irforced by dams from the Cavery to water the district called Mahásura Ashta-gram. This canal now contains a fine stream, like a small river. It never becomes entirely dry, and enables the farmer, even in the dry season, to have a crop of rice on part of his fields. Here were formerly many palm-gardens; but the army, in order state of the to procure fire-wood, and materials for the trenches, destroyed the Mahásura
Ashta-grám whole. They have now been planted again. In this district a good district. deal of sugar-cane is raised; and some persons have lately come here to make sugar. Formerly all the juice was made into Jagory. The present stock is sufficient to cultivate the greater part of the watered-land, but more than half of the dry field is waste.

Although the river abounds with fish, very few are caught by Fish. the natives; for that kind of food is not a favourite one with the people of Mysore.

About the villages swine are now beginning to accumulate, as a Swine.

CHAPTER VIII.
Sept. 7.

Strata.

great proportion of the farmers cat pork. Under the Sultan's government it was necessary to conceal these impure animals.

7th September.—I went three cosses to Gungural-Chatur, which is situated in the Mahasura Nagara Talue, or district of the city of Mysore, and distant three cosses from that place. The country is uneven, but contains no hills. Its strata consist of gueiss, schistose hornblende, and schistose mica, and run nearly north and south.

State of the district of Mahásura Nagara.

Much of the surface, especially toward the west, is broken, stony, and barren; but a great proportion has been formerly cultivated. This, however, is by no means the case at present; for I have seen no part of the country that has suffered more by the operations of war. It has never, indeed, recovered since it was ravaged by a Marattah, whose forces the terror of the natives has augmented to a hundred thousand cavalry. This part of the country contains scarcely any reservoirs or rice-ground, and is very bare, having few or no trees. At all the villages in this neighbourhood there have been palm-gardens, which were watered by the hand, for machinery has never been employed here. All the villages between Gungural-Chatur and Seringapatam are open; but the former, although it has always been a sorry place, is fortified.

Sept. 8. Sicany-pura, or Hussein-poor.

8th September.—I went three Sultany cosses to Muluro. At the distance of one coss from Gungural-Chatur I came to Sicany-pura, which by the Mussulmans was called Husseinpoor. It had been given in Jaghir to Meer Sadue, the favourite minister of Tippoo Sultan; and, although an open town, it has been a neat place with wide streets, which crossed each other at right angles. More than half of the houses are now in ruins. On the approach of one of our foraging parties, it was entirely destroyed by Purnea and Cummur ud' Deen Khan, and a few only of the houses have been rebuilt.

Lakshmana tirta river, and its canals. At a short distance west from Sicany-pura is a fine little river called the Lakshmana tirta, which comes from the south-west, and rises among the hills of the country which we call Courg. At all times

it contains a stream of water, and in the rainy season is not ford- CHAPTER able. It supplies six canals to water the country. The Anas, or dams, that force the water into these canals, are fine works, and Sept. 8. produce beautiful cascades. One of them is broken down, but the other five are in good repair; and, in fact, one of them that I saw supplied more water than was wanted; for a quantity sufficient to turn a mill was allowed to run back into the river through a sluice. Owing to a want of cultivators, a great deal of rice-ground is waste. It is said, that the whole land formerly watered by the canals of the Lakshmana amounted to 7000 Candacas sowing; but the Candacas are small, and contain only from 100 to 140 Seers each. If the seed be sown here as thick as at Seringapatam, the 7000 Candacas would amount to about 18,000 acres.

gentle acclivities; but near the road the soil is in general poor cultivation, This, and of stock. and hard, and from thence very little cultivation is visible. part of the country is at present covered with low trees. The pasture is better than common, owing probably to a greater quantity of rain. On either hand, I am informed by the officers of government, the soil is much better, and about one half of the arable land is in cultivation. I am persuaded, however, that this is not the case, and that almost the whole of the country has been at one time ploughed. The custom here is to separate the fields either by hedges, or by leaving between them uncultivated spaces from four to ten feet wide, which are covered with Mimosas, or other trees; which adds greatly to the beauty of the country, and, by preserving the moisture, probably contributes to the fertility of the land. I think that I can every where observe traces either of the hedges, or of these woody spaces, except in a few spots covered with the Elate sylvestris, or wild date, and of these the soil is said to be saline. Perhaps, however, the devastation may have been committed before the memory of the present generation, and before

the formation of the present village accompts, and one half of the

The country on this day's route is no where steep, and rises into. State of the

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Sept. &

CHAPTER whole lands entered in them as arable may be cultivated. greater part of the cultivators perished during the invasion by Lord Cornwallis, chiefly owing to the ravages committed by a party of Marattahs, and to the consequent famine. None died last year owing to the war, although many lost their effects; and at present the inhabitants amount to about one half of the number that were living in the early part of Tippoo's reign. Last year, three fourths of the cattle perished by the epidemic distemper.

Condition of the Mussulmans, and their attachment to the late Sultan.

The Mussulmans who were in Tippoo's service are daily coming to this part of the country. Those who have any means carry on a small trade in grain; those who are poor hire themselves to the farmers, either as servants or day-labourers. Being unacquainted with agriculture, they are only hired when others cannot be procured. Their wages are, of course, low, and their monthly allowance is thirty Seers of grain (worth three Fanams) and one Fanam in cash; all together about 2s. 8d. They, however, prefer this to enlisting in the service of the Company along with the infidels who killed the royal martyr.

Anacuts on the Cavery and Lakshmana.

Muluro is an open village which contains about forty houses, and is pleasantly situated about two cosses south from the Cavery. this river there are here Anacuts, or dams, watering as much land as those of the districts called Ashta-grams do. The dams on the Lakshmana are said to be of greater antiquity than those which Chica Deva Raya, the Curtur of Mysore, constructed on the Cavery; but the memory of the person's name by whom they were erected has perished.

Tenures.

In this part of the country there are no hereditary Gaudas, or chiefs of villages, whose duties are performed by renters. of these really rent their villages, and agree to pay annually a certain sum. Others receive wages, and account for what they collect. Neither can legally take from the cultivators more than the custom of the village permits. This custom was established by one of the Mysore Rajas.

In Hyder's government two Brahmans, with the title of Hircaras, CHAPTER resided in each district (Taluc). Their duty was, to hear all complaints, and to report these to the office of the revenue department. Sept. 8. They were also bound to report all waste lands. This was found to inspectors be a considerable check to oppression, and to defalcations on the employed by revenue; but, no doubt, was inferior to the visits of the Resident vent abuses. and Dewan, who in this part of their duty are indefatigable. Such visits were however impracticable to princes like Hyder or the Sultan.

Hircaras, or Huder to pre-

Tippoo disused these Hircaras; and this measure of economy com- Defect in the tributed much to the oppression of the people, and to the diminution of the revenue. It is not supposed that, during the latter part of his government, more than a fourth part of the nominal revenue entered the treasury; the country having been depopulated by various means, and every rascal through whose hands any of the public money passed having taken a share; for to such delinquents the Sultan was remarkably lenient, an error of government which flatterers call liberality.

Water for drinking is here very scance and very bad, yet the Scarcity of people have never attempted to dig wells.

9th September.—I went to Emmaguma Cotagala. The country is Sept. 9. nearly of a similar appearance to that which I saw yesterday, and Appearance of the counhas been equally desolated. In one place there is a small rocky try. hill; but every other part, near the road, seems capable of cultivation. As we approach the western Ghats, the vegetation becomes evidently stronger, and the fields have somewhat of a summer verdure. A large proportion of them have even the soil entirely hidden by grass. I am told, that this season the rains have been much less copious than usual, but yet the crops look well. quantity of grain called Car-ragy gradually increases as we advance to the westward: about Seringapatam, and in the country toward the eastern Ghats, no such crop is known. Here the capsicum

VIII.

Sept. 9. Cuttay Malalawadi town and district.

CHAPTER ripens with the natural moisture of the climate; there it requires to be watered.

> About midway is Cuttay Malalawadi, a large mud fort, and the chief town (Kasba) of a district (Talue). About thirty years ago it was fully inhabited, and had a large suburb (Petta); while the cultivation all around was complete. At that period a Marattah army, commanded by Badji Row, laid every thing waste, and most of the inhabitants perished of hunger. So complete was the destruction, that even the excellent government of Hyder did not restore to the district more than one half of its former cultivation. The town never regained its inhabitants, and was occupied by forty or fifty houses of Bráhmans, who lived scattered amid the ruins. The suburb, however, was completely rebuilt. In the invasion of Lord Cornwallis every thing was again ruined; nor could any place recover under the subsequent government of Tippoo. At the commencement of the late war, the population amounted to about a fourth of the former inhabitants, and few or none have since perished; but they lost much of their property, the town having been burned and the fort dismantled by the orders of Tippoo, as he retired after the unsuccessful attack which he made on the Bombay army at Seduseer (Siddhéswara).

Cotagala.

Cotagala, although it gives its name to a district, is an open village containing about twenty houses, and situated about a mile from another called *Emmaguma*; whence the names of the two are commonly mentioned together.

Scarcity of water.

Sept. 10. Appearance of the country, and climate.

The water for drinking is here also very bad and scarce. The wells have not been dug to a greater depth than twelve feet.

10th September.—I went three cosses to Priya-pattana, which in our maps is called *Periapatam*. The country strongly resembles that which I have seen on the two preceding days; but is still less cultivated. Some parts near Cotagala are rather hilly, and there are no remains to show that these have ever been cultivated. The

trees there are high, and extend even to the summits of the hills; CHAPTER which I have not observed to be the case any where to the eastward. Near Priya-pattana are many small pools, that contain water Sept. 10. all the year, although they never overflow so as to give origin to rivers. They are surrounded by meadows; but, on account of their diminutive size, cannot be called lakes. Near the villages on this day's route there are many palm-gardens in a very neglected state. The tanks also are ruinous, although many in number; for even here the rain is not sufficient to bring a crop of rice to maturity. I am told, that in the Coduga, or Coorg country, the rains are fully Coduga, or sufficient for this purpose; accordingly, great quantities of rice productive of are raised there, and much of it is exported, partly towards Chatrakal, and partly towards Seringapatam. Every day, on an average, seventy oxen loaded with this grain pass Cotagala.

Priya-pattana, or the chosen city, formerly belonged to a Poly- Polygars of gar family named Nandi Ráj. These princes were related to the tuna. Vir' Rájas, or Rájas of Coduga, and both families wore the Linga. The territories of Nandi Ráj included the two districts of Priyapattana and Bettada-pura, producing an annual revenue of 30,000 Pagodas (9361 l. 3s.  $8\frac{1}{4}$  d.), and extending about twenty-four miles east from the frontier of Coduga, and about thirty miles south from the Cavery, which bounded them on the north. At that time the fort was a small square, defended only by a mud wall. tained the Mahal, or palace of the Rája; and three temples, one of Siva, one of Jaina, and one of Veideswara, who is one of the destructive spirits. This last was the largest. In the centre of the palace the Raja had built a hall, which is now unroofed; but many ornaments, of neatly carved teak-wood, still remain. As usual in Hindu houses, this Mahal was a square surrounded by a corridore; but the central area was covered with a dome, which is not common. Under the dome was suspended a swing, for the amusement of the Rája, and of his women; for the natives of India are very fond of

VIII. Sept. 10.

CHAPTER this exercise, which is well fitted for vacant minds. Two years after having finished this building, and about 160 years ago, this Raja was attacked by Chica Deva Raya, the Curtur of Mysore; and finding himself unable to resist so powerful an enemy, he killed his wives and children, and then died sword in hand in the midst of With this, it would appear, the prosperity of the his enemies. country ceased; as it was ever afterwards a subject of dispute between the princes of Mysore and the Vir' Rayas, or Coorg Rajas. Chica Deva, however, enlarged the place, and surrounded the mud fort by one built of stone, and placed at some distance without the old works. In this outer fort he settled a colony of Brahmans, and built a temple dedicated to Vishnu.

War between Tippoo and the Vir Raya.

On Tippoo's accession, in order, I suppose, to distress the inhabitants of Coorg, and thus to make their prince, the Vir' Raya, submit to his authority, he interdicted all communication with that country; and ordered, that all such of its inhabitants as might be found in his dominions should be instantly put to death. This restraint was severely felt by the people of Coorg, who, being entirely surrounded by the dominions of the Sultan, had no means of selling their produce, nor of procuring foreign commodities. The Vir' Raya sent an embassy to the Sultan, and represented that it had always been customary for his merchants to trade with those of Mysore and Malayala, and that he was forced by necessity to require that this custom should not be abolished. He received no answer, but a contemptuous defiance; and immediately commenced a predatory warfare, at which his subjects are very expert, and which they had been accustomed to carry on even to the gates of Mysore, before the dread of Hyder's vigorous government had repressed their insolence. In one of these incursions, seventeen years ago, the Vir Raya fell into the hands of Tippoo, by whom he was confined four years in Priga-pattana, with a yearly allowance of 300 Pagodas for a subsistence. The walls of the hovel in which he was confined

are still shown to strangers. One of his sisters was forced into the CHAPTER Zenana of Tippoo, and to her intercessions the Raya probably owed his life.

Sept. 10.

The Coorg country, deprived of its active gallant prince, fell Conquest and loss of Coorg under the yoke of Tippoo, who built in it a fortress called Jaffer- by the Sultan. ábád, and placed there a strong garrison. After the Vir' Râya had been four years confined, he was set at liberty by twelve Gaudas, or chiefs of villages, who entered the town in a concealed manner, and carried their master into his own dominions, where he was instantly joined by all ranks of people; and Tippoo's possessions in that country were soon after confined within the walls of Jaffer-abad. The Raja's troops were quite unfit for besieging the place; but he succeeded in cutting off all supplies, and was not only able to prevent any of Tippeo's forces from entering his country, but was also able to plunder the dominions of Mysore; to which in a great measure is owing the deplorable state of the neighbouring districts. After a long blockade, the Sultan, with much difficulty, conveyed an order to the garrison permitting them to withdraw; which they attempted to do, but on the route they were cut to pieces. Previous to this the Raja had made repeated demands of assistance from the Bombay government, requesting a few regular troops to enable him to destroy the enemy's fortress; and as General Abercromby's army ascended the Ghats about the time when Jaffer-ábád was evacuated, the Raja received them with every mark of kindness and attention. At the same time, he took an opportunity of plundering in the most cruel manner the enemy's country in their rear.

On the approach of General Abercromby's army to Priya-pattana Destruction the fort contained 500 houses of Brahmans, and the suburb or tana. Petta, which is at some distance, contained 1000 houses, mostly inhabited by merchants of the sects that wear the Linga. Tippoo ordered the houses in both fort and suburb to be destroyed, and sprung some mines to render the fort useless to his enemy. The

CHAPTER VIII.
Sept. 10.

Brahmans were dispersed through the country; but many of their beautiful girls became a prey to the lust of the Coorg soldiery, and were carried into captivity. The merchants voluntarily followed a prince of their own religion, who has built a large town for their reception, and for that of the people whom in his predatory excursions he had swept from Mysore. During the ten days that General Abercromby waited at Priya-pattana, the gunpowder of his army was kept in the temple of Jaina. On his retreat it was left behind: but Tippoo, instead of applying it to the purposes of war, caused the whole to be blown up, and thus had an opportunity of destroying an idolatrous temple, which was one of his favourite amusements. In the interval between the peace granted to Tippoo by Lord Cornwallis, and the advance of the Bombay army under General Stuart, a small proportion of the inhabitants had returned to both the fort and suburb; and, in order to overawe the Vir' Raya, a strong garrison was kept in the former; but after the affair at Siddhéswara every thing was again destroyed by Tippoo. The Vir' Raya did not fail again to plunder the country; and while he carried away a great number of the inhabitants, he got a large booty in sandal-wood. The neighbouring country does not now contain more than one fourth of the inhabitants that would be necessary to cultivate it: and the people have not yet recovered sufficient confidence to venture large flocks of cattle on their fine pastures. Such a temptation, they think, could not be resisted by the people of Coorg; and the territories of a notorious thief, the Cotay hutty Nair (Raja of Cotioté), are at no great distance.

Present state of Priya-pattana.

The fortifications at Priya-pattana are quite ruinous, the late Sultan having blown up the best works. In the inner fort there are no inhabitants, and tigers have taken entire possession of its ruins. A horse that strayed in a few nights ago was destroyed; and even at mid-day it is considered as dangerous for a solitary person to enter. It was deemed imprudent for me, who was followed by a multitude, to enter into any of the temples, which serve the tigers

as shelter from the heat of the day, by which these animals are CHA PTER much oppressed. The outer fort contains a few houses of Brahmans, who are forced to shut themselves up at sun-set; but who Sept. 10. prefer this restraint to living in the suburb among the vulgar. The Petta is recovering faster; but ruins occupy by far the greater space; and the scanty population is only able to form pathways through the rank vegetation that occupies the streets.

The environs of Priya-pattana, although rich and beautiful, are Environs of not at this season pleasant to a person living in tents; for the mois- tana. ture of the climate, the softness of the soil, and the rankness of the vegetation, render every thing damp and disagreeable. Toward the east, the uncultivated grounds are half covered with dry thin bushes, especially the Cassia auriculata, and Dodonea viscosa; but here they are thickly clothed with herbage; and near the villages, where the ground is manured by the soil of the inhabitants, and of their cattle, the whole is covered with rank weeds, especially the Ocymum molle, Willd? the Datura metel, the Amaranthus spinosus, the Mirabilis jalappa, and the Tagetes erecta; which last, although originally a native of Peru, is now naturalized every where, from Hémada-giri to Raméswara.

The officers of government here had the impudence to inform Oriental exme, that, according to Chica Deva Ráya's valuation of the country which belonged to Nandi Ráj, it contained 32,000 villages, or Grams. Of these the *Priya-pattana* district ought to contain one half; but 2532 have been utterly deserted, and their sites are now covered with woods. The remaining ones are valued at 14,000 Pagodas a year; but now produce one half only of that sum. The country appears to be by nature excellently fitted for supporting a numerous population; but the account given here seems to be one of those gross exaggerations common in India, and is entirely contradicted by the accounts which I received from the revenue office at Seringapatam.

CHAPTER Alarm of the inhabitants at

11th, 12th, and 13th September.—I remained at Priya-pattana, investigating the state of the neighbouring country; in which I Sept.11-13. had great difficulty from the fears of the people, which were greater there, than in any place in which I had then been. The whole of my enquiries. what I wrote on the first day I was obliged to destroy, and was forced again to go over the same subjects, the first account having been evidently incorrect.

Irrigation, and watered lands.

Near Priya-pattana, the wet lands are entirely irrigated from reservoirs; but in the southern parts of the district canals from the Lakshmana tirta afford much water to the farmers. There are none on the Cavery so far to the westward. Two crops are never taken from the same ground in the course of the year, and the only crops raised on watered-land are rice and sugar-cane. The rains in general set in early, and are copious; but they do not continue long enough to bring-a crop of rice to maturity; for all the kinds that are cultivated in the rainy season require six months to grow. Small reservoirs, sufficient to contain six or eight weeks water, are therefore necessary; and the common crop, called here the Hainu crop, grows in the rainy season. When the rains fail in the early part of the year, a Caru crop can be taken, if the reservoirs are good; but, except those of Priya-pattana, few such are in the country.

Cultivation of rice.

In the annexed table will be seen many of the particulars relative to the cultivation of rice.

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Table explaining	the	cultivation	of	rice at	Priya-pattana.
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Kinds of Rice			Seed.		Produce					Sept.11—13.	
					In a good crop.			In a poor crop.			
cultivated,	Months each 1 to ripe	Scason	Seers for a Candaca-land.	Bushels for an Acre.	Increase, or folds.	Seers on a Candaca-land	Bushels for an Acre.	Folds.	Seers on a Candaca-land,	Bushels on an Acre.	
Anaputti Caimbuti Conawaly Sanabutta - Sana Caimbuti	6 6 6 6	Hainu ditto ditto ditto ditto	140 147 154 119 119	Decimals. 1,253685 1,316336 1,379062 1,06565 1,06565	$\begin{array}{c} 23\frac{43}{43} \\ 18\frac{1}{7}\frac{4}{7} \\ 21\frac{21}{110} \end{array}$	3500 2800 2520 2520	Decimals. 37,610833 31,342142 25,073888 22,566315 22,566315	14 <del>47</del> 13 <del>49</del>	2100		

- - - 2800 25,073888

Caru

Caru - - -

I shall now enter into a fuller detail. The only cultivation of any consequence that is used here is the transplanted, or Nati; yet the natives allow, that if they used the Mola, or sprouted-seed cultivation, the quantity of seed required would be much smaller, and the produce somewhat greater. In their defence, for not adopting a manner of cultivation so superior to that now in use, the farmers allege, that it requires more labour, and that there is at present a deficiency of stock.

By far the greatest quantity of rice cultivated here is the Hainu crop of Anaputti; on which accordingly Chica Deva Ráya formed his Shist, or valuation. I measured what was said to be a Candaca land, as rated in the accompts of the district, and found it to contain  $3\frac{876}{1000}$  acres; on which my calculations in the foregoing table are founded.

The following is the manner of cultivating the Hainu Nati, or Hainu crop crop of transplanted rice growing in the rainy season. The ground, planted rice on which the seedlings are to be raised, gets seven or eight ploughings between the middle of Vaisákha and the tenth of Jyaishtha, which are the second and third months after the vernal equinox. In the intervals between the ploughings, the field is inundated;

Leaves used for manure.

CHAPTER but at each time that operation is performed, the water is let off. After the last ploughing, manure with the leaves of the Chandra Sept.11-13. maligy (Mirabilis), or Womuttay (Datura metel); but, if these cannot be had, with the leaves of the Chaudingy (Solamon, not yet described, but which nearly resembles the Verbascifolium). Then tread the leaves into the mud, sow the seed very thick, and cover it with dung. The seed is in general prepared for sowing, by causing it to sprout; and the reason assigned for so doing is, that it is thereby secured from the birds. This precaution is however sometimes neglected. If the seed has been prepared, or Mola, the field has water during the third, sixth, and ninth days, the water being allowed to remain on the field all day, and being again let off at night. On the tenth day the field is filled with water an inch deep, and is kept so till the eighteenth, when that water is let off. Immediately afterwards the field is filled to three inches deep, and is kept thus inundated until the seedlings be fit for transplantation. If the seed be sown dry, it receives water on the first, second, and third days. On the fourth it has the manure which is given to the Mola, when that is sown. It receives water again on the seventh, which is let off on the ninth. Water is again given on the thirteenth, seventeenth, and twenty-first; and the field is then inundated, until the seedlings are fit for transplantation. They must be transplanted between the thirtieth and forty-sixth days.

Management of the ricefield.

The ploughings for the fields into which the seedlings are to be transplanted are performed during the time in which these are growing; and are done exactly in the same manner as for the field in which the seed has been sown. Stiff ground requires eight ploughings; in a light soil six are sufficient. The manure is given before the last ploughing. The seedlings are pulled in the evening, and kept in water all night. Next morning the field has the last ploughing, and the mud is smoothed by having a plank drawn over it. The seedlings are then planted, and get no water until the eighth day. On the eighth, twelfth, sixteenth, and twentieth days

the water is kept on the field, and is let off at night. The yellow CHAPTER colour occasioned by the transplantation is then changed into a deep green; after which, until the crop ripens, the field is con-Sept.11-13. stantly inundated. In a bad soil, the weeds are removed on the thirtieth day; in a good soil, on the forty-fifth.

The Caru crop, or that raised in the dry season, being taken in Caru crop of bad years only, which do not often happen, the farmers are obliged to procure seed from places where the Caru rice is regularly cul-They are supplied from Saligrama, near the Cavery; a Saligrama. place which is esteemed holy, as Ráma Anuja threw into a tank there his Saligrama and copper pot. The place is also celebrated on account of its fine rice-grounds, which are supplied with water from the river. The ploughing season for the ground in which the seed is to be sown is the second month after the autumnal equinox. The manner of cultivating the Caru crop differs only in the season from that which is used for the Hainu.

The farmers here make their sprouted-seed in the following man- Manner of ner. The seed is soaked all night in water, and is then placed in a making Mola, heap on a piece of sackcloth, or on some leaves of the plantain-tree seed. (Musa). There it is mixed with some buffalo's dung, and the leaves of the Buricay (or Ocymum molle Willd.?), and covered with packsaddles. In the evening it is sprinkled with warm water, and covered again. In the morning and evening of the second day it is sprinkled with cold water, and next day it is fit for sowing.

Although the produce is great, the farmers of Priya-pattana never Sugar-cane. raise sugar-cane unless they receive advances. Jagory sells here at 1 Rupee, or  $3\frac{1}{4}$  Fanams a Maund, or at about 9s.  $4\frac{1}{2}d$ . a hundredweight. The cane is watered from reservoirs; the natural moisture of the climate not being sufficient to raise it, and machinery being never employed. The kinds cultivated are Restalli and Maracabo, both of which grow nearly to the same length, which is in general about six feet. The Restalli ripens in twelve months; while eighteen are required to bring forward the Maracabo; so that, as a crop of

CHAPTER rice must always intervene between two crops of sugar-cane, the rotation of the former occupies two years; while in that of the Sept.11-13. Maracabo three are consumed. A little Puttaputti has been lately introduced.

Cultivation of Maracabo sugar-cune.

For the Maracabo plough twenty times, either in Astraja and Kartika, the two months immediately following the autumnal equinox; or in Kartika and Margasirsha, which is of course one month later. The canes are planted in the second or third months after the winter solstice. In order to plant the cane, longitudinal and transverse furrows are drawn throughout the field, distant from each other one cubit and a half; at every intersection a hole is made, nine inches wide, and of the same depth; in each hole are laid horizontally two cuttings of cane, each containing three joints; finally under them is put a little dung, and above them an inch of mould. Then water each hole with a pot, from a channel running at the upper end of the field. On the two following days this must be repeated. Until the end of the third month, water every other day. From the third to the sixth month, the field must, once in eight days, be ploughed between the rows of holes; and at the same time, should there be any want of the usual rain, it must be watered. At the first ploughing a little dung must be given, and at the end of six months the field must be copiously manured. At this time channels are formed winding through among the canes; so that every row is between two channels. When the rainy season is over, these channels must be filled with water, once in eight days in hot weather, and once a month when it is cool. At the beginning of the eighth month the whole field is hoed, and at the end of two months more this is repeated. The cane here is never tied up. A Candaca-land is estimated to contain 7000 holes; but in this there must be some mistake; for allowing  $1\frac{1}{2}$  cubit for each hole, 7000 would not plant an acre; whereas the Candaca of land that I measured contained  $S_{\frac{3.76}{10.00}}$  acres. The produce of a Candaca of land is stated to be about 14,000 Seers, each of 24 Rupees weight; which.

according to my measurement, would be about 19½ hundred-weight CHAPTER of Jagory per acre: but, if 7000 holes at the distance from each other of 1½ cubit produced this quantity, it would be at the rate of Sept. 11-13. above 93 hundred-weight for the acre, which is much more than can be allowed.

The sugar-mill used here is the same with that which the farmers Sugar-mill. of Chenapatam employ. In the course of twenty-four hours it gives as much juice as produces three boilings, each of about a hundredweight of Jagory.

A farmer, if he has four ploughs, and four constant labourers, Labour percan cultivate a Candaca-land alternately with sugar-cane and with formed by rice; but at weedings, and such other occasions, he must hire additional workmen. He will, however, cultivate thirty-five Seers sowing of Ragy.

The Pyr-aurumba, or dry-crops, at Priya-pattana are, Ragy with Pyr-aurumits concomitants Avaray, Tovary, Navony, Harulu, Tadaguny, and ba, or dry-crops. mustard, Huruli, Udu, Car' Ellu, Mar' Ellu, wheat, Carlay, and Shamay.

The only Ragy cultivated here is called Caru; which does not Kinds of Car' differ in species, botanically speaking, from the Gyd' Ragy culti- Ragy, or Cy-nosurus corovated to the eastward; but the seed of the Gyd' Ragy, cultivated canus. as the Caru kind is, will not thrive. There are three kinds of Car' Ragy: the Balaga, or straight spiked Ragy, which is always sown separately from the others; the Bily Modgala, or white Ragy with incurved spikes, and the Cari Modgala, or incurved black Ragy: the two latter are sometimes kept separate, and sometimes sown intermixed. The cultivation for all the three is quite the same, and the value of the different kinds is equal; but the produce of the Cari Modgala is rather the greatest.

A rich black soil is here esteemed the best for Ragy; next to Soils fitted that the red soil usually preferred to the eastward; but it is sown for Car' Ragy. also on sandy land, and grows there very well, if it have plenty of manure.

CHAPTER VIII. Cultivation and produce

A few days after reaping the former crop, the field is ploughed, and the ploughings are repeated once or twice a month, as opportunity Sept.11-13. offers, till within fifteen days of the sowing season, which lasts all the two months following the vernal equinox. In the course of of Car' Ragy. these fifteen days two ploughings are given; and then the field is manured with dung, and ploughed again. After the first shower of rain that happens, sow the Ragy seed broad-cast, and plough it in; at the same time put in rows of the accompanying seeds, at two cubits distance, by dropping them in the furrow after a plough. On the fifteenth, twenty-second, and twenty-ninth days, draw the hoe called Cuntay through the field, in order to destroy superfluous On the forty-fifth day remove weeds with a knife. The Ragy is ripe in four months. The fields rated in the public accompts, as being of a size sufficient to sow a Candaca of Rugy, in fact require somewhat more. I measured one, and found it to contain 7 see acres; and making allowance for the difference between the public accompts and the quantity said to be usually sown, we may estimate that 7 acres are sown with one Candaca of Ragy seed. One acre will therefore sow  $2\frac{71}{100}$  pecks; and, thirty-two seeds being reckoned a good crop, will produce in favourable circumstances rather more than 22½ bushels, beside what grows in the drills.

A second crop after Ragy.

In very rich soils, nothing is put in drills along with Ragy; but immediately after that grain has been cut, a second crop of Curlay (Cicer arietinum) is sown, which does not injure the ground. Sometimes a second crop of Shamay (Panicum miliare E. M.), or of Huts' Ellu (Verbesina sativa Roxb: MSS.), is taken; but these exhaust the soil much. When rain does not come at the proper season, the Ragy fields are sown with Huruli, Carlay, Huts' Ellu, or Cari-Shamay. The two leguminous plants do not injure the soil; but the Huts' Ellu and Shamay render the succeeding crop of Ragy very poor. Ragy straw is here esteemed the best fodder for cattle; and, except in times of scarcity, that of rice is never used.

The pulse called Huruli is, next to Ragy, the most considerable CHAPTER dry-erop. It is of two kinds, white and black; but they are never kept separate. It grows best on a light or stony soil, and the largest Sept 11-13. crops are had after a fallow of three years; but when there is a suf- lichos bifloficient number of farmers, no ground is kept fallow; the fields of a rus, or Horsepoor soil, not fit for Ragy, are cultivated alternately with Huruli, and with Mar' Ellu, or Cari Shamay. The crop of Huruli that is sown on Ragy-land when the rain fails is very poor. For Huruli plough two or three times in the course of ten days, during the month immediately preceding the autumnal equinox. Then after the first rain sow the seed, and cover it with the plough. It ripens in three months. The husks are reckoned good fodder. The quantity of seed is half as much as that of Ragy, or about  $1\frac{3}{100}$  peck an acre; and, twenty seeds being reckoned a good crop, an acre will produce rather less than 7 bushels.

Cari Shamay is the next most considerable dry-crop. How far Cari Shamay. this differs from the Sal Shamay, which is the Panicum miliare E. M., I had no opportunity of learning. However, it is probably a mere variety. It is commonly sown on the poorer soils alternately with Huruli; but is also occasionally sown on Ragy-fields, when in the early part of the season there has been a failure of rain. In the last case, the crop of Shamay is great; but the succeeding crop of Ragy is very bad. The cultivation commences in the month preceding the vernal equinox. Plough then three or four times, sow broad-cast, and harrow with the rake drawn by oxen. It ripens in three months without farther trouble. The straw is here never given to cattle. For the same extent of ground the same quantity of Shamay seed is required as of Ragy. The produce in a good crop is twenty fold, or rather less than fourteen bushels an acre.

The next most considerable crops are the leguminous plants called Carlay and Udu, of which about equal quantities are raised.

Carlay always requires a black mould; and is cultivated partly Carlay, or as a second crop after Ragy, and partly on fields that have given num. Vol. II.

Sept.11-13.

CHAPTER no other crop in the year. In this case, the produce is much greater, and the manner of cultivation is as follows. In the two months preceding the autumnal equinox, the Ragy having been cut, the field is ploughed once a month for fourteen or fifteen months. Then in the course of four or five days plough twice. After the last ploughing, drop the seed in the furrows at six inches distance from each other, and it ripens without farther trouble. The seed is sown as thick as that of Ragy, and a Candaca sowing in a good crop produces 1400 Seers, which is at the rate of rather less than seven bushels an acre.

Doda Udu.

There are here two kinds of the pulse called Udu; the Dodu, or great, which is reaped in the dry season; and the Chittu, or little, which comes to maturity in the rains. I had no opportunity of learning how far the great differs from the little Udu, which is the Phaseolus minimos of Dr. Roxburgh's MSS. It is cultivated on good Ragy-soils, and is taken as an alternate crop with that grain. After cutting the Ragy the field is ploughed once a month for a year. At the last ploughing some people sow the seed broad-cast, and cover it with 'the plough; others drop it into the furrow after the plough. In this last case, the young plants are always too thick; and when they are a month old, part of them must be destroyed by the hoe drawn by oxen. If sown broad-cast, the weeds at the end of a month must be removed by the hand. The seed required is + of that sown of Ragy, or rather less than a peck for the acre. The broad-cast sowing gives least trouble, and produces about  $3\frac{17}{100}$ bushels an acre. The drilled Udu produces improved in three months.

Chittu Udu. Phaseolus. minimos. Roxb: MSS.

The Chittu, or lesser Udu, is cultivated at the same season with the Car' Ragy, and requires four months to ripen. Owing to a more luxuriant growth, even when sown broad-cast, it requires the use of the hoe drawn by oxen. It is not, however, so productive as the great Udu; rather less than three bushels an acre being a good crop. The quantity of seed sown is the same. Cattle eat the straw

of *Udu*, when mixed with the husks, and with those of *Huruli*, CHAPTER Carlay, Avaray, and Tovary, and with the spikes of Ragy, after these have been cleared of grain. This fodder is reckoned superior to Sept.11—13, even the straw of Ragy.

The next most considerable crop is Car' Ellu, or Sesamum. It is Car' Ellu, or Sesamum. Sown on Ragy-fields that consist of a red soil, and does not exhaust them. The field is ploughed as for Ragy, but is not allowed manure. The seed is mixed with sand, sown broad-cast, and harrowed with the rake drawn by oxen. It ripens in four months without farther trouble. The seed is equal to  $\frac{2}{14}$  of the Ragy that would be sown on the same field, which is less than half a peck an acre. The produce is about twenty seeds, or about  $2\frac{1}{2}$  bushels an acre. The straw is burned, and the ashes are used for manure.

The next most considerable crop is Mar' Ellu, which is the same Mar' Ellu, plant that in other places is called Huts' Ellu, and which Dr. Roxburgh considers as a species of Verbesina. It is sown on poor soils alternately with Huruli, and is cultivated in the same manner. It is sown also on Ragy-fields, when the crop has failed for want of rain. The rich only can have recourse to this, as the next crop of Ragy would suffer unless it received an extraordinary quantity of manure. On this ground it produces most. On the poor soils it produces about twelve fold; but the quantity sown on an acre amounts to less than six Seers.

A very small quantity of the wheat called Juvi Godi (Triticum monococcum) is raised here on fields of a very rich soil, from which alternate crops of Carlay and of it are taken. The manure is given to the Carlay; the wheat requires none. From the winter to the summer solstice plough once a month. Then in the following month plough twice, sow broad-cast, and cover the seed with the plough. It ripens in four months without farther trouble. The seed required for an acre is about  $4\frac{7}{100}$  pecks; the produce is ten seeds, or rather less than twelve bushels.

VIII. Sept 11-13. Jitagara, or

labourers employed in

agriculture.

CHAPTER

I have reason to think that this account of the cultivation of dry grains is not materially erroneous.

The labouring servants of the farmers are here called Jitagara, or hired men. They cat once a day in their master's house: a good worker gets also 40 Fanams, or about 11. 6s. 10d. a year; and an indifferent man gets only 30 Fanams, or about 11. A woman gets yearly 5 Fanams worth of cloth, and 4 Fanams in money, and cats twice a day at her master's expense. Their diet consists of Ragy-flour boiled into a kind of porridge. The seasoning consists of a few leaves bruised with capsicum and salt, and boiled in a little water. It is only the rich that use oil or Ghee (boiled butter) in their diet. Milk is in such plenty, that the Jitagara may have as much Tyre, or sour curds, as they please.

Farmers and farms.

Owing to the devastations of war, the people near Priya-pattuna are at present so poor, that they are cutting off the unripe ears of corn, and parching them to satisfy the cravings of appetite. Before the invasion of the Bombay army under General Abereromby, the poorest farmers had two ploughs; some rich men had fifteen; and men who had from eight to ten were reckoned in moderate circumstances. A man who had two ploughs would keep 40 oxen young and old, 50 cows, two or three male buffaloes, four females, and 100 sheep or goats. A rich man would have 200 cows, and other cattle in proportion. One plough can cultivate 10 Colugus of rice-land, and 5 Colugas of Ragy-field; altogether a little less than four acres. This is too small an allowance; and the farmers seem to under-rate the extent of a plough of land, as much as they exaggerate their former assluence. They pretend, that the officers of government are forcing them to cultivate more than their stock could do properly, by which means their crops are rendered poor. The officers deny the charge, and say, that since Tippoo's death this has not been practised. In Indian governments, however, it is a common usage.

By the ancient custom, the Gaudas, or chiefs of villages, were CHAPTER hereditary, and the heirs still retain the dignity; but the power is lodged with the renters, who offer the highest sum; and every year, Sept. 11-13. in the month preceding midsummer, a new Jummabunda, or agreement, is made. A farmer cannot be turned out of his possession so long as he pays the fixed rent; but if he gives over cultivation, the officers of government may transfer his lands to any other person.

The rent for dry-field is paid in money, according to an old va- Rent on dryluation made by Chica Déva Ráya of Mysore; and most of it pays 40 Fanams a year for every Candaca, or almost 3s. 6d. an acre. This includes both good and bad soils; care having been taken, in laying out the fields, to include in each nearly an equal proportion of the four different kinds of soil. In some high places, where there is no good soil, the Candaca lets at twenty Fanams, or at about 20 d. an acre. Some land that is now cultivated for rice, having been dry-field at the time when the valuation was made, continues to pay the old rent.

By far the greater part, however, of the wet-land pays by a Rent of wadivision of the crop, made as follows: the produce of a Candacaland having been taken,

	Cand.	. Col.
The farmer gets for his labour	1	0
The Mety, or priest to the stake of Cassia Fistula -	0	<i>5</i>
The Saktis, or destructive spirits	0	2
The watchman, Talliari, or Barica, as he is here called	- 0	2
The Shanaboga of the Hobly, or accomptant of the divisio	n O	1
The Nirgunty, or conductor of water	0	2
The ironsmith	o	2
	1	14

The remainder is equally divided between the government and. farmer, the latter taking the sweepings at the bottom of the heap.

CHAPTER Free-lands.

In every village there are some free-lands that pay no rent. In this district there are free-lands to the annual value of seventy-eight Sept. 11-13. Pagodas, which formerly belonged to the Panchangas, or village astrologers; but since Tippoo's death they have been given to Vaidika Bráhmans. These formerly had many villages entirely belonging to them, which were reassumed by Tippoo, and have not yet been given back. The same is the case with the lauds that formerly belonged to the temples. The Talliari of each village, who is a kind of watchman and beadle, has, as pay, from twenty to thirty Fanams worth of land free from rent. Here this officer performs the annual sacrifice to the village god; for most of the hereditary Gaudas wear the Linga, and will not put any animal to death. The hereditary Gauda and ironsmith had each a portion of land, for which they paid only half rent. The full tax was imposed on these lands by Tippoo, and is still continued. Some Guudas manage their villages on account of the government, and pay in the proceeds of their collections. These persons receive wages.

Kitchen gardens.

In this part of the country there are no professed gardeners; but every farmer, for his own use, raises a few greens and vegetables in a small spot behind his house.

Plantations of palm-trees.

The plantations of palm-trees were formerly extensive, and there is much soil fit for them; but they have been much reduced by the disasters of war. They belong chiefly to Bráhmans. Having assembled some of the proprietors, they gave me the following account. The Areca, or Betel-nut palm, requires an Eray, or black mould, on a substratum of lime-stone; and of such a nature that water may be had at no greater depth than three cubits. This soil does not agree with the coco-nut palm; but rows of these are always put round the plantations of Areca, in order to shelter them.

Areca, or Betel-nut.

To make a new plantation of Areca, take a piece of proper ground, and surround it with a hedge of the Euphorbium Tirucalli, and some rows of young coco-nut palms. Then, at the distance of twelve cubits, dig rows of pits, two cubits deep, and one and a half in

diameter. These pits are six cubits distant from the nearest in the CHAPTER same row. In the second month after the vernal equinox, set in these pits young plantain trees (Musa), and give them water once; Sept. 11-13. after which, unless the weather be uncommonly dry, they require no more. Two months afterwards hoe the whole garden, and form a channel in the middle between every two rows of plantain-trees. The channels are intended to carry off superfluous water, and are a cubit wide, and two feet deep. In the month immediately following the winter solstice, hoe the whole garden a second time. In the following month, between every two rows of plantain-trees, make two rows of holes at six cubits distance, and one cubit wide and deep. Fill each hole half up with fine mould; and, in this, place two ripe nuts of the Areca, six inches asunder. Once in two days, for three months, water each hole with a pot. The shoots come up in Vaisákha; after which they get water once only in five days. The holes must be kept clear of the mud that is brought in by the rain; and for three years must, on this account, be daily inspected. In the month following the autumnal equinox, give a little dung. Ever afterwards, the whole garden must be hoed three times a year. After they are three years old, the Areca palms must be watered every other day in hot weather; when it is cool, once in every four or five days; and not at all in the rainy season. The waterings are performed by pouring a potful of water to the root of each plant. In the beginning of the seventh year the weakest plant is removed from each hole; and at each digging, for three years more, every tree must receive manure. After this, for three years, the young palms have neither dung nor water. In the fourteenth year they begin to bear, and in the fifteenth come to. perfection, and continue in vigour until their forty-fifth year, when they are cut down.

When the Areca plantation is fifteen years old, in the month im- Betel-leaf; or. mediately following the vernal equinox a hole is dug near every Piper. Betle. tree, one cubit deep and one and a half in width. After having

CHAPTER exposed the earth to the air for a month, return it into the holes, and allow it to remain for another month. Then take out a little Sept.11-13. of the earth, smooth the surface of the pit, and bury in it the ends of five cuttings of the Betel-leaf-vine, which are placed with their upper extremities sloping toward the palm. Once every two days, for a month, water the cuttings, and shade them with leaves. Then remove the leaves, and with the point of a sharp stick loosen the earth in the holes. In the first year the waterings must be repeated every other day, and the whole must once a month be hoed; while at the same time dung is given to every plant. In the second year, the vines are tied up to the palms; once in two months the garden is hoed and manured; and it is in the hot season only that the plants are watered. At the end of the second year the vines begin to produce saleable leaves. In the third year, and every other year afterwards, so much of the vines, next the root, as has no leaves, must be buried. Once in six months the garden must be hood and manured; and in the hot season the vines must be watered every other day.

Manner of keeping up these plantations.

The owners of these plantations are annoyed by elephants, monkies, and squirrels; and, besides, both palms and vine are subject to diseases; one of which, the Aniby, in the course of two or three years kills the whole. Except when these causes of destruction occur, the vine continues always to flourish; but, as I have before mentioned, the palm begins to decay at forty-five years of age, and is then removed, care being taken not to injure the vine. Near this is made a fresh hole, in which some persons place two nuts for seed, and others plant a young seedling. In order to support the vine, during the fifteen years which are required to bring forward the new palm, a large branch of the Haruana, or Erythrina, is stuck in the ground, and watered for two or three days; when it strikes root, and supplies the place of an Arrea. The plantain trees are always kept up. The crop-season of the Betel-nut lasts Astraja, Kartika, and Márgasírsha.

It is said, that a Candaca of land, rice-measure, will plant 1000 CHAPTER Areca trees; but it is evident, that, at six cubits distance, above 2000 trees ought to be placed in the Candaca of 3 3 7 6 acres. Con- Sept. 11-13. siderable allowances must, however, be made for the hedge, and for the ground occupied by the surrounding coco-nut palms. If for these we take forty feet, the remainder of the Candaca would plant 1200 Arecas. Of these, in an old garden, part are useless; as the young trees put in to supply the place of decayed ones do not bear fruit. Perhaps the 1000 trees may therefore be considered as a just account of the actual number of productive Arccas on a Candaça of land. The produce of these, stated by the proprietors, amounts to forty ox-loads of wet-nut, yielding thirty Maunds of the Betel as prepared for the market. The quality of the nut is equal to that of the Walagram; and it is bought up chiefly by the merchants of Mysore and Seringapatam. As these make no advances, it is evident that the proprietors are in easy circumstances.

On examining the people of the town on this subject, they said, that seven good trees, or ten ordinary ones, produce a load of fruit containing 6000 nuts. A good tree therefore gives 857, and an ordinary one 600 nuts. Sixty thousand nuts, when prepared for sale, make a load of between seven and eight Maunds. One thousand ordinary trees at this rate should procure 75 Maunds, or more than double of what was stated by the proprietors. I am indeed inclined to believe, that their statement was merely accommodated to the share which the government actually receives on a division, in which it must be always defrauded. The 75 Maunds from a Candaca-land agrees nearly with the produce that Trimula Nayaka stated at Madhu-giri, and on his veracity I depend. The towns-people also say, that the mode of cultivation, as stated to me by the proprietors, is only what ought to be done; but that the present cultivators never give themselves so much trouble, and very seldom hoe their plantations throughout; which is indeed confirmed by their slovenly condition. Purnea has here a garden containing

CHAPTER 900 Arccas, which, his servants say, produce about 52 loads of raw fruit. This would make the produce of 1000 trees rather more than Sept.11—13. 42½ Maunds of prepared nut.

Rent of palm plantations.

While a new plantation is forming, the owner pays for every hundred plantain trees, three Fanams a year, which will be fifteen Fanams, or about 10s. for the Candaca-land. After the garden grows up, the government gets what is called one half of the boiled Betelnut, or about 15 Maunds of that commodity, for the Candaca-land. This is worth 75 Funams; which makes the rent paid to the government about 15% an acre, or 21. 10%, 4d. for 1000 bearing trees. In an old garden nothing is paid for the plantains, or betel-leaf. Such a moderate tax will account for the Brúhmans being the chief proprietors.

Pasture and cattle.

I have already had occasion to mention the goodness of the pasture in this neighbourhood; and at this season, at least, it keeps the cattle in excellent condition. These are all bred in the house, and are of the small short kind. Formerly they were very numerous. A good cow gives daily two Pucka Seers of milk, or a little less than two ale quarts. A good buffalo gives three times that quantity.

Climate.

The following is the account of the climate which was given me by the most intelligent natives of the place. The year is, as usual, divided into six seasons: I. Vasanta Ritu comprehends the two months following the vernal equinox. During this the air is in general very hot, with clear sun-shine, and strong winds from the eastward. No dew. Once in ten or twelve days squalls come from the east, accompanied by thunder, and heavy showers of rain or hail, and last three or four hours. II. Grishma Rita contains the two months including the summer solstice. The air is very hot, and there is no dew. The winds are westerly; during the first month weak, but after the solstice strong. It is said, that formerly, during this period, the weather used to be constantly clouded, with a regular, unintermitting, drizzling rain; but for the last half

century such seasons have occurred only once in four or five years; CHAPTER and in the intervening ones, although the cloudy weather continues, the constant rain has ceased, and in its place heavy showers have Sept.11-13. come at intervals of three or four days, and these are preceded by some thunder. III. Varshá Ritu includes the two months preceding the autumnal equinox. The air is cool. The winds are light, and come from the westward. Formerly the rains used to be incessant and heavy; but of late they have not been so copious oftener than about once in four or five years: still, however, they are almost always sufficient to produce a good crop of grass and dry grains, and one crop of rice. Priya-pattana has therefore been justly named the Chosen City by the natives of Karnáta, who frequently suffer from a scarcity of rain. At this season there is very little thunder. IV. Sarat Ritu contains the two months following the autumnal equinox. In this the air is colder, and in general clear: but once in three or four days there are heavy showers from the north-east, accompanied by thunder, but not with much wind. In the intervals the winds are gentle, and come from the westward. Moderate dews now begin. V. Hémanta Ritu includes the two months immediately before and after the winter solstice. The air is then very cold to the feelings of the natives. They have never seen snow nor ice, even on the summits of the hills; but to these they very seldom ascend. Bettada-pura I conjecture to be about 1800 or 2000 feet perpendicular above the level of the country, which is probably 4000 feet above the sea. It is a detached peak, and is reckoned higher than either Siddhéswara, or Saihia Paravata; from whence the Cavery springs. These two are the most conspicuous mountains of the Coorg country, and are surrounded by lower hills. At this season there are heavy dews and fogs; so that until ten o'clock the sun is seldom visible. There is very little wind; but the little that there is comes from the west. This is reckoned the most unhealthy season; and during its continuance intermittent

CHAPTER fevers are very frequent. VI. Sayshu Ritu includes the two months immediately preceding the vernal equinox. The dews decrease Sept. 11—13. gradually in the first, and disappear in the second month. There is no rain, and the atmosphere is clear, with remarkably fine moonshine nights. The air is cool and pleasant. The winds are from the eastward, and moderate. Except in Hemanta Ritu, fevers are very rare. In the Coorg country the air is hot and moist, and by the natives of this place is reckoned very unhealthy.

Weights, measures, and coins.

The Cucha Seer and Maund of the Sultany standard are here in use. The Candaca of grain contains 140 Secrs, and is nearly 4 155 bushels. Accompts are kept in Canter Raya Pagodas, Fanams, and Dudus. Bombay cash is current; but Couries are not used. The Madras and Sultany Rupers exchange for 31 Fanams, although the latter is most valuable by about & per cent. The Bombay Rupee passes only for three Fanams.

Commerce and manufactures.

Priya-pattana enjoys a considerable share of the trade between the Mysore dominions, and those of Coorg; but the place is now very poor, the Vir' Raya having carried off all the rich merchants. For their accommodation he has built a new town called, after his own name, Vir' Raya Petta; and, as he gives them good encouragement and protection, they are not likely to return. There is no trade at Modicarey and Nacnadu, the two places where the Rája usually resides. From Mysore are sent the dry grains, cloths, ghee, oil, jagory, coco-nuts, tobacco, garlic, capsicum, betel-leaf, iron, steel, blankets, and tamarinds. The returns are rice, salt, and all the kinds of goods which are imported at Tellicherry. The sales are chiefly made at a weekly market in Vir' Ráya Petta. The quantity of rice that passes the custom-house of Priya-pattana annually from Coorg, is between five and six thousand ox-loads, each containing from seven to eight Maunds, or about 182 lb. The only cloth made here, is a very small quantity of coarse cotton stuff of a thick fabric. It is manufactured by a cast of weavers called the Torearu.

There is at present no Gyda Cavila, or forest-renter; but formerly CHAPTER there used to be one, who, having made friendship with the wild tribes called Cad' Eravaru, and Jainu Curubaru, procured from Sept. 11-13. them honey and wax, Popli chica, a dye, Dupada wood, Gunti Forests. Beru, a root used in dycing, Cad' Arsina, or wild turmeric, and Cadu Baly Aly, or the leaves of the wild plantain tree, which are used by the natives as dishes. For timber, or grass, no rent was demanded.

Sandal-wood grows in the skirts of the forest. The people of Sandal-Coorg were in the habit of stealing a great part of it; but since the wood, Santacountry received the Company's protection they have desisted from this insolence. It is often planted in gardens and hedges; and, from the richness of the soil, grows there to a large size; but in such places the timber has little smell, and is of no value. a Daray, or stony soil only, that ro duces fine sandal. It may be felled at any season; and once in twelve years, whatever has grown to a proper size is generally cut. On these occasions, this district produces about 10,000 Maunds, or above 2000 hundred-weight. The whole was lately sold to the agents of the Bombay government, and a relation of Purnea's was employed to deliver it. Much to the credit of the Dewan, this person was put in confinement, having been detected in selling to private traders some of what he cut, and also in having sold great quantities that were found buried. During the Sultan's government a great deal of it arrived at maturity, which he would not sell. In general, this was privately cut, and concealed under ground, till an opportunity offered of smuggling it into the Vir' Raya's dominions. The Amildars have now received orders to cut all the sandal-wood in their respective districts, and to deliver it to the Bombay agents. They know nothing of the conditions of sale. At present, no sandal-oil is made at Priya-pattana.

The woods are infested by wild elephants, which do much injury Elephants. to the crops. They are particularly destructive to the sugar-cane

CHAPTER and palm-gardens; for these monstrous creatures break down the Betel-nut tree to get at its cabbage. The natives have not the art Sept. 11-13. of catching the elephant in Kyddas, or folds, as is done in Bengal; but take them in pit-falls, by which a few only can be procured, and these are frequently injured by the fall.

Strata and rocks.

The strata of rocks in this neighbourhood are much concealed; but, from what I have seen of them, I am persuaded that their direction is different from that of the strata toward the north-east. They run about west-north-west and east-south-east, a point or two more or less I cannot determine, as my compass was stolen at Bangalore, nor could I repair my loss at Seringaputam. The most common rock here is hornblende. In the buildings of the place there are two excellent stones: one is what the Germans call regenerated granite; the other is a granite, with gray quartz and reddish iclspar disposed in flakes, or alternate plates; but in such an irregular manner, that it does not appear to me that they could be so arranged by any deposition from water, however agitated.

14th September, -In the morning I went three cosses to Hunagodu,

the chief place of a division, called a Hobli, dependent on Priya-

about fifty houses. The country is naturally very fine; little of it

Sept. 14. Hanagodu, and the neighbouring pattana. It has a mud fort; but the suburb is open, and contains country.

> is cultivated however, and it is infested with tigers and elephants that are very destructive. Hanagodu is one coss and a half distant from the southern frontier of Priya-pattana, and at a similar distance from the present boundary of Coorg. The Vir' Raya is said to have made a ditch and hedge along the whole extent of the old eastern boundary of his dominions, which runs within three cosses of Hanagodu. One half of this distance, next to his hedge, was reckoned a common, or neutral territory; but the Rája lately

> claimed it as his own; and, the Bombay government having interfered, Tippoo was compelled to acknowledge the justice of the claim. The whole country between Hanagodu and the frontier of Coorg

has for sixty years been waste.

Frontier of Coorg.

The Lakshmana river passes within a quarter of a mile to the east- CHAPTER ward of *Hanagodu*, and at present contains much water. seasons it has a considerable stream; and at this place is the upper- Sept. 14. most of its dams. Advantage has been taken of a natural ledge of niver, and irrocks which cross the channel, and stones have been thrown in to rigation from thence. fill up deficiencies. The whole now forms a fine dam, over which rushes a cascade about a hundred yards long, and fourteen feet high; which, in a verdant and finely wooded country, looks remarkably well. This dam sends off its canal to the eastward, and waters the ground that requires for seed 100,000 Seers of rice. If this be sown as thick as at Priya-pattana, the ground irrigated will amount to 2678 acres. On the ground above the canal, as the declivity in many places is very gentle, much might be done with the machine called Capily; but the use of that valuable instrument is here not known. It is probable, that on this river several additional dams might be formed. Here it is said, that of the seven, which have been built, three are now out of repair.

The Gungricara Woculigas are in this neighbourhood the most Gungricara common race of cultivators, and are a Súdra tribe of Karnáta de- who follow scent. Some of them wear the Linga, others do not. It is from the Bráhthese last that I take the following account. The two sects neither eat together nor intermarry. They act as labourers of the earth, and as porters. The head of every family is here called Gauda; and an assembly of these settles all small disputes, and punishes transgressions against the rules of cast. Affairs of moment are always referred to the officers of government. The business of the cast, as usual, is punishing the frailty of the women, and the intemperance of the men. If the adulterer be a Gungricara, or of a higher cast, both he and the husband are fined by the officers of government, from three to twelve Fanams, or from two to eight shillings, according to their circumstances. The husband may avoid this fine by turning away his wife, in which case she becomes a concubine of the kind called Cutiga; but this is a length to which the husband

Sept. 14.

CHAPTER seldom chooses to proceed; the difficulty of procuring another wife being considered as a more urgent motive than the desire of revenge. If, however, the adulterer has been of a low cast, the woman is, without fail, divorced, and delivered over to the officers of government, who sell her to any low man that will purchase her for a wife. In this cast there are two kinds of Cutigas: the first are such women as have committed adultery and their descendants, with whom no person of a pure extraction will intermarry; the others are widows, who, having assembled their relations, obtain their consent to become lawful Cutigas to some respectable man. The children of these are legitimate, although the widows themselves are considered as inferior to virgin wives. A man never marries a woman who is of the same family in the male line with himself. The men are allowed a plurality of women, and the girls continue to be marriageable even after the age of puberty. None of them can lawfully drink spirituous liquors. Some of them cat meat, but others abstain from this indulgence. These two do not intermarry, and this division is hereditary. Some of them can keep accompts, and even read legends written in the vulgar tongue. Some worship Siva, without wearing the Linga; and some worship Vishnu; but this produces no division in cast. They do not offer bloody sacrifices to the Saktis; but pray to the images of the Baswa, or bull of Iswara, of Marima, and of the Caricul, or village god. They do not believe in the spirits called Virika; but indeed that worship does not seem to extend to the south of the Cavery. They do not take the vow of Dáséri. They bury the dead, and believe that in a future state good men will sit at the feet of God. Even a bad man may obtain this happiness, if at his funeral his son bestow charity on the Dáséris. An unfortunate wicked man, who has no son to bestow charity, becomes as mud. By this, I suppose, they mean that his soul altogether perishes. Their Guru is an hereditary chief of the Sri Vaishnavam Bráhmans, and lives at Mail-cotay. He gives them Chakrántikam, holy-water, and

consecrated rice, and from each person accepts of a Fanam a year, CHAPTER as Dharma. The Panchánga, or village astrologer, acts as Puróhita at marriages, at the building of a new house, and sometimes at the Sept. 14. annual ceremony performed in commemoration of their deceased parents. On these occasions, he reads Mantrams, which the Gungricara do not understand, and of course value greatly. He is paid for his trouble.

to Hegodu Devana Cotay, where, as I had been informed, I should procuring have an excellent opportunity of examining the forests that invest accurate inthe western frontiers of the Mysore dominions. I was two hours employed in getting my baggage ferried over the Lakshmana; for there was only one leather boat, about six feet in diameter. ing this time, I was informed that the forests were six cosses from Hegodu Devana Cotay; and that the nearest inhabited place to them was a miserable village half way from the town, which afforded no supplies of any kind. I was also informed, that, in the neighbourhood of where I then was, some people were employed in cutting timber for the garrison at Seringapatam, and that here I might see exactly the same kind of forest that I could at Hegodu Devana Cotay, In consequence of this information, I went half a coss up the right bank of the river, to a ruined village named He- Hejuru. juru, where the workmen had taken up their abode in an old temple. At this place there are evident remains of a considerable fort, which about seventy years ago was destroyed by the Vir' Ráya. Twenty or thirty houses had been again assembled, when, on General Abercromby's coming up to Priya-pattana, the Vir' Ráya destroyed it again, and carried away all the inhabitants. One rich farmer has

15th September.—I set out very early with an intention of going Sept. 15.

since returned. Part of the soil in this neighbourhood is the black-Black soil.

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arietinum); but at present it is waste.

est that I have ever seen, some peat excepted. It is not very stiff, and is said to be remarkably productive of wheat and Carlay (Cicer

CHAPTER VIII. Forests.

Elephants.

16th, 17th, and 18th September .- I remained at Hejuru, endeavouring to procure an account of the forests, in which I met with Sept. 16—18. much less success than might reasonably have been expected. I went into them about three cosses, to a small tank, farther than which the natives rarely venture, and to which they do not go without being much alarmed on account of wild elephants. In this forest these animals are certainly more numerous, than either in Chittagong or Pegu. I have never seen any where so many traces of them. The natives, when they meet an elephant in the day-time, hide themselves in the grass, or behind bushes, and the animal does not search after them; but were he to see them, even at a distance, he would run at them, and put them to death. It is stragglers only from the herds, that in the day-time frequent the outer parts of the forest. The herds that at night destroy the crops, retire with the dawn of day into the recesses of the forest; and thither the natives do not venture, as they could not hide themselves from a number. It is said, that at the above-mentioned tank there was formerly a village; but that both it and several others on the skirt of the forest have been lately withdrawn, owing to an increased number of elephants, and to the smaller means of resistance which the decrease of population allows.

Soil and appearance of the forests.

The soil of these forests is in general very good, and much of it is very black. In places where the water has lodged, and then dried up, such as in the print of an elephant's foot, this black soil assumes the appearance of indurated tar. The country is by no means steep, and is every where capable of cultivation; but of this no traces are to be seen in any part of the forest. Near Hejuru the trees are very small; for so soon as any one becomes of a useful size it is cut. As the distance and danger increase, the trees gradually are allowed to attain a larger growth; and at the tank they are of considerable dimensions. Farther on, they are said to be very stately. The forest is free from underwood or creepers; but the whole ground is

covered with long grass, often as high as a man's head. makes walking rather disagreeable and dangerous, as one is always liable to stumble over rotten trunks, to rouse a tiger, or to tread Sept. 16-18. on a snake. These latter are said to be found of great dimensions, Large serand have been seen as thick as the body of a middle-sized man. The length of this kind is not in proportion to the thickness, and does not exceed seven cubits. Although I passed a great part of these three days in the forest, I saw neither elephant, tiger, nor serpent, and escaped without any other injury than a fall over a rotten tree.

This CHAPTER VIII.

These forests are very extensive, and reach to the foot of the Extent and western Ghats; but in this space there are many valuable and fer-produce of these forests. tile tracts, belonging to the Rájas of Coorg and Wynaad. The trees on the Ghats are said to be the largest; yet in the dominions of Mysore there is much good timber. The kinds differ much less from those in the Magadi range of hills, than, considering the great difference of moisture and soil, might have been expected; for the rains are here copious, and the soil is rich; neither of which advantages are possessed by the central hills of the Mysore Rája's dominions. In the woods of Hejuru, however, there are very few of the prickly trees; whereas a large proportion of those at Magadi are mimosas. The following are the trees which I observed in the forest at Hejuru.

1. Doda Tayca. Tectona robusta.

In great plenty.

- 2. and 3. Cadaba. Nauclea parvifolia, and Nauclea cordifolia Roxb. These two species, although very distinct, are by the woodmen of this place included under the same name. Both grow to a large size, and their timber is reckoned equal to that of the Teak, or more properly Tayc.
- 4. Honnay, or Whonnay. Pterocarpus santolinus. Is found in great plenty, and is a beautiful and useful tree.

CHAPTER

5. Biriday. Pterocarpus.

This is the same kind of tree with that at Magadi. By the Mussul-Sept.16-18. mans it is called Sissu.

6. Dalbergia paniculata Roxb.

Being useless, it has obtained no native name.

7. Cagali. Mimosa Catechu Roxb. Fl. Cor. No. 174.

Grows in the skirts of the forest only, and never reaches to a large size.

8. Bunni. Mimosa.

This is very like the Cagali. Its timber is of no use. The tree is esteemed holy, as the shaft of Ráma's spear is said to have been made of its wood.

9. Biluara. Mimosa odoratissima.

At Magadi this tree was called Betta Sujalu. It is a large valuable timber-tree.

10. Mutti, Chuncoa Muttea Buch. MSS.

The natives here have several appellations which they give to this species; such as Cari, or black; Bily, or white; and Tor, by which name I knew it at Magadi.

11. Alalay. Myroballanus Arula Buch. MSS.

Grows to a very large size; but the fruit, or myrobalans, are the only valuable part; and, owing to the remote situation of the place, these are not collected.

12. Hulivay. Chuncoa Huliva Buch. MSS.

There is only one kind of this tree, although it has a great variety of names given to it by the natives. It is a large tree, and its timber is good.

- 13. Tari. Myroballanus Taria Buch. MSS.
- Very large.
  - 14. Nai Bayla. Mimosa leucophlea Roxb.
- 15. and 16. Muruculu. Chirongia sapida Roxb. MSS. and Chirongia glabra Buch. MSS.

These two trees, although they are lofty, do not grow to a great

thickness. The woodmen talk of *Hen* and *Ghindu Muruculus*, or CHAPTER female and male; but they do it without precision, and do not apply one term to the one species, and another to the other:

Sept. 16—18.

17. Gumshia. Gumsia chloroxylon Buch. MSS.

It does not grow to a large size; but the timber is said to be very strong, and has a singular green colour. Ropes are made of its bark.

18. Dinduga. Andersonia Panchmoun Roxb. MSS.

Grows to a very large size. Its timber is valuable.

19. Shagudda. Shaguda Cussum Buch. MSS.

A large tree. Its timber, being very rarely found sound at heart, is not much esteemed.

- 20. Gheru. Anacardium Juss.
- 21. Nelli. Phylanthus Emblica.

It is the fruit only of these two trees that is of any use.

22. Goja. Clutia stipularis?

A large tree, of which the timber is reckoned good.

23. Schrebera albens Willd.

Has here no name. It is, in fact, an Eleodendrum.

24. Tupru. Diospyrus Buch. MSS.

Here it is always a large tree, and its timber is esteemed good.

25. Jugalagunti. Diospyrus.

The same prejudice prevails here, as at Magadi, against this tree.

26. Culi.

A large tree producing good timber.

27. Cad' Ipay. Bassia.

The leaves are different in size and shape from those of the Bassia longifolia, which is planted near villages. The art of extracting a spirituous liquor from the flowers is here unknown.

- 28. Nærulu. Calyptranthes Jambulana Willd.
- 29. Gaula. Pelou Hort. Mal.

The fruit is said to be as large as that of the Artocarpus integrifolia, and to be a favourite food with the elephant.

CHAPTER 30. Budigayray.

VIII. The fruit is said to poison fish.

Sept. 16-18. 31. Navulady. Vitex alata Buch. MSS.

A large timber tree.

32. Jala. Shorea Jala Buch. MSS.

A large timber tree. No lac is made here.

33. Nirany.

An useless tree.

34. Gurivi. Ixora arborea Roxb. MSS.

Used for torches.

35. Wudi. Schrebera Sweitenioides Roxb.

A large tree.

36. Chadrunshi. Bauhinia.

A small tree of no value.

37. Bamboos.

Large, but not solid.

38. Chaningy. Lagerstromia parviflora Roxb.

39. Goda.

The Amutty of Magadi. Large and in plenty. Here its timber is reckoned to be bad.

40. Shilla.

A large excellent timber-tree, of which I could get no specimen. It is quite different from the Shalay of Magadi.

Cad' Curubaru. The Cad' Curubaru are a rude tribe of Karnáta, who are exceedingly poor and wretched. In the fields near villages they build miserable low huts, have a few rags only for covering, and the hair of both sexes stands out matted like a mop, and swarms with vermin. Their persons and features are weak and unseemly, and their complexion is very dark. Some of them hire themselves as labouring servants to the farmers, and, like those of other casts, receive monthly wages. Others, in crop season, watch the fields at night, to keep off the elephants and wild hogs. These receive monthly one Fanam and ten Seers, or  $1\frac{3}{100}$  peck of Ragy. In the intervals.

between crops, they work as day labourers, or go into the woods, CHAPTER and collect the roots of wild Yams (Dioscoreas); part of which they eat, and part exchange with the farmers for grain. Their manner Sept. 16-18. of driving away the elephant is by running against him with a burning torch made of Bamboos. The animal sometimes turns, and waits till the Curubaru comes close up; but these poor people, taught by experience, push boldly on, and dash their torches against the elephant's head, who never fails to take immediate flight. Should their courage fail, and should they attempt to run away, the elephant would immediately pursue, and put them to death. The Curubaru have no means of killing so large an animal, and, on meeting with one in the day-time, are as much alarmed as any other of the inhabitants. During the Sultan's reign they caught a few in pit-falls. The wild hogs are driven out of the fields by slings; but they are too fierce and strong for the Curubaru to kill. These poor people frequently suffer from tigers, against which their wretched huts are a poor defence; and, when this wild beast is urged by hunger, he is regardless of their burning torches. These Curubaru have dogs, with which they catch deer, antelopes, and hares; and they have the art of taking in snares peacocks, and other esculent birds. They have no hereditary chiefs, but assemble occasionally to settle the business of their cast. They confine their marriages to their own tribe. The Gauda, or chief man of the village, presides at this ceremony, which consists of a feast. During this the bridegroom espouses his mistress, by tying a string of heads round her neck. The men are allowed to take several wives; and both girls after the age of puberty, and widows, are permitted to marry. In case of adultery, the husband flogs his wife severely, and, if he be able, beats her paramour. If he be not able, he applies to the Gauda, who does it for him. The adulteress has then her choice of following either of the men as her husband. They can eat every thing except beef; and have no objection to the animal having died a natural death. They will eat victuals dressed by any of the farmers,

CHAPTER but would not touch any of my provisions. They do not drink spirituous liquors. None of them take the vow of Dáséri, nor attempt to Sept.16—18. read. Some of them burn, and others bury the dead. They believe that good men, after death, will become benevolent Dévas, and bad men destructive Dévas. A good man, according to them, is he who labours properly at his business, and who is kind to his family. The whole are of such known honesty, that on all occasions they are entrusted with provisions by the farmers; who are persuaded, that the Curubaru would rather starve, than take one grain of what was given to them in charge. They have no Guru, nor does the Panchanga, or any other kind of priest, attend any of their ceremonies. The spirits of the dead are believed to appear in dreams to their old people, and to direct them to make offerings of fruits to a female deity named Bettada Chicama; that is, the little mother of the hill. Unless these offerings are made, this goddess occasions sickness; but she is never supposed to do her votaries any good. She is not, however, appeased by bloody sacrifices. There is a temple dedicated to her near Nunjinagodu; but there is no occasion for the offering being made at that place.

Betta, or Malaya Curubaru.

There is also in this neighbourhood another rude tribe of Curubaru, called Betta, or Malaya, both words signifying mountain; the one in the Karnáta, and the other in the Tamul language. Their dialect is a mixture of these two languages, with a few words that are considered as peculiar, probably from their having become obsolete among their more refined neighbours. They are not so wretched nor ill looking as the Cad' Curubaru, but are of diminutive stature. They live in poor huts near the villages, and the chief employment of the men is the cutting of timber, and making of baskets. With a sharp stick they also dig up spots of ground in the skirts of the forest, and sow them with Ragy. A family in this manner will sow nine Seers of that grain. The men watch at night the fields of the farmers; but are not so dexterous at this as the Cad' Curubaru are. They neither take game, nor collect wild Yams. The women

hire themselves to labour for the farmers. The Betta Curubaru CHAPTER have an hereditary chief called Ijyamána, who lives at Priya-pattana. With the assistance of a council of three or four persons, he Sept. 16-18. settles disputes, and punishes all transgressions against the rules of cast. He can levy small fines, and can expel from the cast any woman that cohabits with a strange man. In this tribe, the concubines, or Cutigas, are women that prefer another man to their husband, or widows who do not wish to relinquish carnal enjoyment. Their children are not considered as illegitimate. If a man takes away another person's wife, to keep her as a Cutiga, he must pay one or two Fanams as a fine to the Ijyamána. Girls are not considered as marriageable until after the age of puberty, a custom that by the higher orders is considered as a beastly depravity. The men may take several wives, but never marry a woman of the same family with themselves in the male line. The Betta Curubaru never intoxicate themselves; but are permitted to eat every kind of animal food except beef, and they have no objection to carrion. They never take the vow of Dáséri, and none of them can read. Some of them burn, and others bury the dead. They understand nothing of a future state. The god of the cast is Ejuruppa, who seems to be the same with Hanumanta, the servant of Ráma; but they never pray to this last mentioned deity, although they sometimes address Siva. To the god of their cast they offer fruit, and a little money: they never sacrifice to the Saktis. Their Guru, they say, is of the cast Wotimeru, and from their description would appear to be of those people called Satánanas. He gives them holy water, and consecrated victuals, and receives their charity. At their marriages, he reads somewhat in a language which they do not understand.

19th September.—I went four cosses to Hegodu Dévana Cotay; Sept. 19. that is, the Fortress of the mighty Déva. The two first cosses of the Appearance of the counway led through a forest, as thick as that which is to the south-west try towards of Hejuru, and is covered with longer grass. The road was a very vana Cotay. narrow path. The trees are small, and stunted, probably from the

VIII. Sept. 19.

CHAPTER poorness of the soil, which is in general very light. The elephants are said to be very numerous here also, but I did not see any. The former sites of several villages could readily be discovered. Farther on, the whole country has evidently been once under cultivation; but the greater part has been long waste, and is now covered with trees. Here a sudden change takes place. In the rich land to the westward, there are very few prickly trees or bushes; but here, and all towards the east, the most common are Mimosas and Rhamni. On the way I passed two villages which had some cultivation round them. The crops were mostly of the leguminous kind, and seemed to be very thriving.

History of Hegodu Dévana Cotay.

The tradition concerning Hegodu Dévana Cotay is as follows. About four hundred years ago Hegodu Déva, a brother of the Ráyalu of Anagundi, having had a dispute with the king, came and settled here, the whole country being then one forest. He first built a fort at a place called Hegodu-pura, about half a coss west from hence. One day, as he was coursing, the hare turned on his dogs, and pursued them to this spot, which the prince therefore knew to be male ground, and a proper place for the foundation of a city. At this place he accordingly took up his residence, and fortified it with seven ditches. He brought inhabitants to cultivate the country which now forms this district, and was at the head of all the neighbouring Polygars. His son, Singuppa Wodear, was conquered by Betta Chama Rája Wodear, of Mysore; and the present fort was built about 130 years ago by Chica Déva, one of that rebellious subject's descendants. He made a Cundaia, or valuation of the country; but I do not find that any person is possessed of a copy of the whole. The Shanaboga or accomptant of each village has a copy of its valuation, which, from want of a check, is very liable to be corrupted. The dominions of Hegodu Déva extended from the city four cosses to the east, six cosses to the south, four cosses to the west, and three cosses to the north. Formerly the whole country was cultivated; but now three cosses toward the west, and two

cosses toward the south are entirely desolate; and in the other CHAPTER two directions much land is waste. Near the place, indeed, I can no where see much cultivation. These devastations have been chiefly Sept. 19. committed during the troubles with the Coorg Rájas, especially those which happened in Tippoo's reign. The town itself first suffered considerably in the Marattah invasion during Hyder's government. Previous to that, it contained a thousand houses; but they are now reduced to eighty.

The wretched inhabitants of this country have also had frequent State of Bytrouble from the Bynadu Rája, who is besides possessed of a country naad. called Cotay-huttay in Malayálam. This last territory is below the Ghats, and is a part of what we call Malabar; which derives its name from its hilly nature. Bynadu signifies the open country; and, although situated on the summits of the Ghats, and in many places over-run with forests, yet it is infinitely more accessible than the other territories of this chief. Cærulu Verma, the present Rája, is a younger branch of the family; but retains his country in absolute sovereignty, denying the authority of the Company, of the head of his family, and of all other persons. In the reign of Tippoo, this active chief assembled some of his Nairs, and regained possession of the territories which the former reigning prince had, on Hyder's invasion, deserted. The Rája, who had so basely submitted to the Mussulman conqueror, succeeded afterwards to the territory of a relation, and now enjoys his share of the allowance which is made to the Rájas of Malabar by the Company, to whose authority he quietly submits. The Bynadu Rája has at present sent the Conga Nair, one of his officers, into the Mysore dominions, to cut sandalwood, and to plunder the villages. In this vicinity there are now a hundred cavalry, and one hundred and fifty regular infantry, besides Candashara, belonging to the Mysore Rája: but these dare not face the Conga Nair, nor venture to repress his insolence. master lays claim to all the country west from Nunjinagodu. Had I deferred visiting the forests till I came here, I should have been

VIII. Sept. 19.

Sandal-wood Santalum album.

CHAPTER completely disappointed; although the best information that I could procure at Seringapatam pointed this out as the place most proper for the purpose.

> Hegodu Dévana Cotay is one of the most considerable districts for the produce of sandal-wood; and I found there a Portuguese agent of the Commercial Resident at Mangalore, who was employed to collect a purchase of this article that had been made by the government of Bombay from the Dewan of Mysore. Two thousand Candies, each weighing 520 lb. were to have been delivered at a stipulated period; but this has not been fulfilled. Orders, indeed, have long ago been issued to the Amildars for accomplishing it; but a prompt execution of any such commands is by no means usual in an Indian government. The account which this agent gave is as follows: the Amildars, having no legal profit for this extraordinary trouble, endeavour to squeeze something out of the workmen. They charge the wages given to these poor people at i of a Fanam a day, which is the usual rate of the country; and, in place of this, give them only half a Seer of Ragy. The labourers, being thus forced to work at a low allowance, throw in his way every obstacle in their power. It is the lowest and most ignorant of the peasantry, in place of tradesmen, that have been selected. A sufficient number having been seized, they are ordered each to bring a billet of sandal to the Cutchery, or office of the Amildar. Every man immediately seizes on the tree nearest him; cuts it down, whether it be ripe or not; neglects the part nearest the root, as being more troublesome to get at, and drags the tree to the appointed place, after having taken off the bark to render it lighter. Before the office the logs lie exposed to sun, wind, and rain, until other peasants, as ignorant as the former, can be pressed to cut off the white wood with their miserable hatchets. These cut the billets of all lengths, according as every man thinks it will be most convenient for him to clean them: by this means, being less fit for stowage, they are not so saleable. The whole is then hurried away to the place where

the agent is to receive his purchase; and when it comes there, the CHAPTER Amildar is astonished to find, that one half of what he had calculated upon is rejected, as being small, foul, or rent. The people Sept. 19. are very docile; and the agent, so far as he has been able, has had the trees brought to him, just as they were cut, and freed from their branches and bark; and he has superintended the cutting them into billets of a convenient size, and the cleaning them properly from white wood. Owing to a want of time, he has been obliged to have them dried in the sun; and I observe, that in consequence of this a great many of the billets are rent in all directions. He suspects that the Amildars throw delays in his way, in order to force him to weigh the sandal while it is green. He thinks that, in order to instruct the villagers in the manner of cleaning the wood, it would be of advantage to send a carpenter, with proper tools, to each district.

The agent says, that the sandal-wood of Priya-pattana and Maha-Ráyana-Durga, although smaller, is of a much better quality than that of Naggara, which is inferior to that even of the districts south from Priya-pattana. None, or at least a very inconsiderable quantity, grows in Coorg, and Bynadu; but in Tippoo's reign the Tellicherry market was chiefly supplied by the Rájas of these two countries, to whom it was smuggled by the inhabitants of Mysore; for the most violent orders had been issued prohibiting the sale. The people of Coorg understand the preparation of the sandal-wood much better than those of Mysore. The proper manner, according to the agent, is as follows: the trees ought to be felled in the wane of the moon; the bark should be taken off immediately, and the trees cut into billets two feet long. These should be then buried in a piece of dry ground for two months, during which time the white ants will eat up all the outer wood, without touching the heart, which is the sandal. The billets ought then to be taken up and smoothed, and according to their size sorted into three kinds. The deeper the colour, the higher is the perfume; and hence the Sept. 19.

CHAPTER merchants sometimes divide sandal into red, yellow, and white; but these are all different shades of the same colour, and do not arise from any difference in the species of the tree. The nearer the root, in general, the higher is the perfume; and care should be taken, by removing the earth, to cut as low as possible. The billet nearest the root, when this has been done, is commonly called root-sandal, and is of a superior quality. In smoothing the billets, chips of the sandal are of course cut off, as are also fragments in squaring their ends. These chips and fragments, with the smallest assortment of billets, answer best for the Arabian market; and from them the essential oil is distilled. The largest billets are sent to China; and the middle-sized billets are used in India. The sandal, when thus prepared and sorted, for at least three or four months before it is sold, ought to be shut up from the sun and wind in close warehouses; but the longer it is kept, with such precautions, the better; its weight diminishing more than its smell. Prepared in this way, it rarely either splits or warps, both of which accidents render it unfit for many of the purposes to which it is applied. If it be not buried in the ground, the entire trees ought to be brought into a shed at the warehouse, and there cut into proper billets, cleared of white wood, smoothed, and immediately shut up till thoroughly dry. The Vir' Rája's people, although they cure the sandal properly, have no notion of sorting it. The Rája is the principal dealer in this article, and insists on the merchants taking it good and bad, as it comes to hand, at the same price. He, no doubt, thus gets quit of the whole refuse; but, I believe, most merchants of experience would prefer selling their wares properly sorted.

> The officers of government say, that the sandal tree seldom or never grows in the lofty forests. It delights in the skirts of the open country, where small intervals are left between the fields, or on the banks of mountain torrents. It prefers a light stony soil, and such only as grows there is of any value. In the soil which this tree requires there is, however, something peculiar; as it rises

up in one place copiously, and not at all in another neighbouring spot, although there be no apparent difference in the situation or soil. It springs partly from seed, scattered by the birds that eat Sept. 19. its berries; and partly from the roots of the trees, that have formerly been cut; and requires about twenty years to come to perfection. No pains, that I could discover, are taken to preserve the young plants from cattle; so that they always rise in a very straggling manner. If formely any systematic management was observed, it has of late been entirely neglected. To prevent any person from cutting sandal without permission from government, laws have long existed: but these never were enforced with rigour by Tippoo. They are excessively severe, and prevent the peasantry from ever stealing the tree. It is only Rájas, and men above the law, that venture on this kind of theft. The present plan adopted by the Dewan seems to me to be the worst that could have been chosen. The woods are as much destroyed as if they had been sold to a renter; and, I am assured, will produce no more for at least twelve years; while no pains have been taken to make the most of what has been cut. To the conduct of this minister, however, no blame is, on this account, to be attached. He had sold the wood to the Company; and the misconduct of the officer, whom he had entrusted to cut it down, rendered it necessary for him to adopt the means by which he would be most likely enabled to fulfil his engagements, without attending to any other circumstance of less importance.

Two means occur to me, as likely to ensure a considerable and regular income from sandal-wood. One means would be, to grant long leases to an individual, who would of course take every care of the trees, and employ every means proper to render what was cut fit for the market. The rent would be fixed at so much a year; and restrictive clauses, to prevent the renter from ruining the woods toward the end of his lease, would be necessary. The difficulty in exacting the performance of these restrictive clauses would make

CHAPTER VIII.

Sept. 19.

CHAPTER me prefer the other plan; which would be, to put the sandal-wood under the management of an agent, on a footing similar to the saltagents of Bengal. He would preserve the trees, when young, by destroying all the other plants that might choak them, and by watching against thefts, or the encroachments of farmers. He would yearly cut the trees that were ripe, and no others. He would take care that the billets were properly prepared and cured; and he would bring the whole to public sale at proper times and places. His pay ought to be a commission on the neat proceeds. For some years, it is probable, the quantity procured would not overstock the market; but with care the quantity raised would, no doubt, so lower the price, as to diminish the profit very much. In that event, the sandal of the least profitable districts might be entirely destroyed; and in the most convenient and profitable situation, a sufficient quantity would be raised. As it is a mere article of luxury, or rather of ostentation, there can be no doubt of the propriety of making it entirely subservient to the purpose of raising a revenue; and the whole sandal of India is now in the hands of the Honourable Company, and of the Rája of Mysore; between whom the necessary arrangements might be readily completed.

Sept. 20.

Want of veracity.

20th September.—I went three cosses to Humpa-pura. The country has formerly been almost entirely cultivated; but at present about three fourths of it are waste. The sandal-wood is very common here, growing in intervals between the corn fields, and by the sides of torrents. The Parputty, or revenue officer, of Humpa-pura had the impudence to tell me, that although the farmers were rather poor, owing to the depredations of the camp followers during the late war, yet there was abundance of stock; and that every field capable of it was actually cultivated. The same officer said, that cattle were never permitted to go near the young sandal-wood trees. Now the man must have known, that from the tent in which we were sitting, I had ocular demonstration of both affirmations being false; and what could induce him to make them I could not discover.

Irrigation.

Among the natives, however, similar departures from the truth are CHAPTER common.

Purnea has lately repaired a canal which comes from the dam at Sept. 20. Hanagodu, and which in the rainy season conveys the superfluous water into a reservoir, where it is preserved for cultivating a considerable portion of rice-land in the dry weather. By similar means much water, that is now lost from the Cavery, might be preserved.

We have now again got into a dry soil, with short herbage in- Soil. termixed with bushes of the Cassia auriculata: but the fields have a verdure unknown to the eastward, and Car' Ragy is the common crop.

All the high grounds that I have seen south from the Cavery, as Fences. well as those in many places north from that river, have evidently been once fenced with quickset hedges. Some of these at this place are very fine; and the natives, being sensible of the advantage of shelter in preserving a moisture in their fields, have allowed the Tirucalli to grow twenty feet high. When from its height it has become too open at the roots, they plant in the openings the Euphorbium antiquorum, which grows well under the shade of the other; and both united make a good and a very beautiful fence. The hedges of the country in general, even where they are kept up as fences, are in a very slovenly condition, and are ruined by being overgrown with the Convolvulus, and other rank climbing plants.

Humpa-pura is a miserable open village. A little east from it is Monument erected a stone, containing some small figures in bas-relief, which of a great are much defaced. Concerning this the tradition is as follows: Canterua, Raya of Mysore, having invaded Coorg with a large army, was entirely defeated, and pursued this length by the Vir' Ráya. In the flight there perished three hundred and sixty of the Mysore nobles, each of whom had the privilege of using a palanquin. The conqueror having bestowed great Dharma, that is to say, having thrown away much money on religious mendicants, erected this

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CHAPTER stone as a monument of his victory, and to mark the new boundary of his dominions. It was but for a short time, however, that he retained these acquisitions.

> Yesterday afternoon I was very unwell; and another day's stay in the woods would probably have given me a serious indisposition.

Sept. 21.

21st September.—I remained at Humpa-pura, to obtain an account of the iron mines in that neighbourhood.

Strata at Humpa-pura. Pot-stone.

The strata at Humpa-pura are vertical, and run nearly north and south. Many of them consist of pot-stone of a bad quality. These are of various breadths.

The goddess Chicama.

South from Humpa-pura is a cluster of high hills, named Chica Deva Betta, or the hill of the little spirit. It is sacred to Chicama, the deity of the Cad' Curubaru, lately mentioned. Over the elephant she has peculiar authority; and, before a hunt of that animal is undertaken, she is propitiated by a sacrifice.

Iron mines.

On the north side of Chica Deva Betta are three low hills, which produce iron ore. Mota Betta is situated about three miles E. S. E. from Humpa-pura, immediately below the junction of the river Nuga with the Kapini, and to the right of both. Culia Betta is the most considerable mine, and is situated between the two rivers, being distant from Mota Betta one coss and a half. West from thence about half a coss, is Hitena Betta, which is on the left of the Kapini. I could only examine Mota Betta, without occasioning a delay of several days in my journey; which I did not think adviseable, as I was told that the ore in all the three places is nearly the same; and this is confirmed by the hills lying nearly in the direction of the strata at Mota Betta.

Description of Mota Betta, and its mines.

Mota Betta is a hill of no considerable height, about a mile in length, and extending from north to south. It is wrought at the south end only; but no trial has been made to ascertain how far the mine extends. The strata that are in view run from about northwest to south-east, or rather more toward the east and west; but I judge merely from the sun. They point directly toward the high

peak called Bettada-pura; while those on the opposite side of the CHAPTER Kapini run nearly north and south. The strata dip toward the north at an angle of about 30 degrees. They consist of schistose plates; Sept. 21. and, owing to their being penetrated by fissure's at right angles to the strata, they break with a smooth surface into angular fragments. The internal structure of the plates is foliated, and these leaves being of different appearances, and sometimes straight, sometimes undulated, would seem to show that they have been deposited from water at different times. The strata are from one to three feet in thickness, and consist of granular quartz more or less impregnated with iron ore, which is of the same nature with the common ironsand of the country. In most of the strata the quartz predominates; and by the natives these are considered as useless. In others, although having nearly the same external appearance, the iron is more abundant, and these are the ore. From these last, ochres of various colours exude, by which they are readily distinguished from the barren strata. In the rainy season, the workmen content themselves with collecting the fragments of ore which the water brings down from the hill. These are like the black sand, but larger and more angular. From the earth with which they are mixed they are separated by being washed in long wooden troughs, made of hollow trees. In the dry season, the workmen are forced to have recourse to the strafa; but never penetrate deeper than the surface. Before they begin to work upon any spot, they cover it with a coat of earth for a year; which seems to accelerate the decay, and to render the ore brittle. After it has been dug up with pick-axes, the ore is broken into small pieces, and the iron is separated from the stony matter by washing.

The smelting is said to be carried on in a manner similar to that Expense and used in other parts of the country. The iron, as it comes from the working the smelting-furnace, is sold to the farmers; and the common forges iron ore. of the blacksmiths are sufficient to work it up into the implements of agriculture. The rent paid to government is in iron, and this

CHAPTER VIII. Sept. 21.

must be formed into wedges at a forge. Hyder made an allowance for the expense of doing this, which amounts to a Fanam on the Maund; but his son stopped this allowance, which has not been restored. The rent paid for each furnace is 30 Maunds of 50 Seers, or about 300 pieces, or 910 lb. of wrought iron. For every ten pieces the owners pay, to the people who forge it, one Fanam, or in all 30 Fanams, worth 40 pieces of crude iron. The whole rent then is 340 pieces, or 255 Fanams. This and all other advances are, made by the Pyragara, or superintendant, who pays all the workmen by wages. If we allow the furnace to work 320 days in the year, he pays as follows:

To rent	-	Fanams. 255
To ten makers of charcoal, at Fanam daily	-	640
To four miners, at ditto	-	240
To four washers of the ore, at ditto	-	240
To two principal bellows-men, at \frac{1}{3} Fanam daily	•	213 <del>1</del>
To two inferior ditto, at 4 Fanam daily	-	160
To four miners, at ditto  To four washers of the ore, at ditto  To two principal bellows-men, at \(\frac{1}{3}\) Fanam daily	- - -	240 240 213 <del>1</del>

Total Fanams 1748+

These melt four time	s a day, a	nd at ea	ch time į	get three	Fanams.
Fanams worth of iron, i	n all	-	-	-	3840
Deduct expenses	-	-	-	-	1748 -
The profit will be	-	-	-		2101 <del>1</del>

From this, however, must be deducted the expense of bellows and other implements, with sacrifices, presents to mendicants, and other similar charges. Each melting is cut into four bars; and from eight to twelve, or on an average ten, of these make a Maund of forged iron. Its prime cost is therefore  $7\frac{1}{2}$  Fanams, with 1 Fanam to the workmen who forge it; in all,  $8\frac{1}{2}$  Fanams for a Maund of 50 Sultany Seers, or about 21s. a hundred-weight.

Beautiful zock.

In the fork between the Nuga and Kapini rivers, is a stratum of

a similar disposition to those of the mine. It consists of very CHAPTER shining black foliated hornblende, or perhaps basaltine, dotted with white felspar.

Sept. 21.

The pillars of a temple of Bhairawa Dévaru, at the same place, Gneiss. are of very fine gneiss, like some of the best at Mail-cotay. The priest could not inform me from whence they had been brought.

Dévaru, the

Bhairawa Dévaru is the god of the Curubas, and is a malevolent Bhairawa male spirit. His temple is built exactly like the smaller temples deity of the of the gods of the Bráhmans, and without spires, or high ornaments, Curubaru. Its roof, like those of the temples of Iswara (also a destructive spirit), is ornamented with images of the bull. The Pujuri, or priest, is a Hal Curubaru, who can neither read nor write.

The Kapini river, at Humpa-pura, is about sixty yards wide, and Kapini river. at all seasons contains running water. Its channel is sandy, and considerably below the level of the country; which circumstances have prevented the natives from making dams. It takes its rise from a hill named Banasura, in the Bynadu. At this season the Ferries. river is no where fordable. I crossed it on Bamboo floats, which with ease transport horses and palanquins, and which are a much better conveyance than the baskets, covered with leather, that are the usual ferry-boats in all parts of the peninsula.

The Nuga river is smaller and more rapid and rocky than the Nuga river. Kapini. It also rises in the Bynadu. Formerly there were two dams on it; but the fields which they watered have for twenty years been deserted. By the disturbances in the country the number of the people had then been so much diminished, that they were no longer able to resist the encroachments of the elephants. This year the Amildar of Hegodu Dévana Cotay has sent a party of armed men to protect the place, and some farmers have returned to their former abodes. The country, watered by these rivers coming from the western Ghats, is naturally by far the finest in Mysore, and would equal in beauty any in the world, were it decently cultivated; but ruin and misery every where stare the traveller in the face.

## A JOURNEY FROM MADRAS THROUGH

VIII.
Sept. 21.
Ignorance and want of veracity.

I have no where met with the people so ignorant, and such gross liars, as in this vicinity. Except the accomptant, a Bráhman, I did not converse with one man who did not prevaricate; and very few of them would give an answer to the most simple question; while most of them pretended ignorance on all occasions and subjects. The accomptant's answers were rational, and never contradictory; and it was owing to him that I was able to procure any account of the iron manufacture. During my stay at Humpa-pura I could procure none that was in the least satisfactory; but, ashamed of his countrymen, he persuaded two of the workmen to follow me to the next stage, and to give me the account that I have inserted.

Sept. 22. Appearance of the country.

Hully. The road leads parallel to the valley which the Kapini waters, and runs along its north side at a considerable height above the river, and also at some distance from its banks. The valley is naturally beautiful. So far as I could judge from looking down upon it, the whole has been once cultivated, and inclosed with quick-set hedges; and it contains an abundance of trees, though few of them are large. The hills that bound it on the north and south are covered with hushes, so as to give them an uniform verdure; and, for the matter of prospect, look as well as if clothed with the most lofty forests. Near the road there was very little cultivation; and some of the soil is too poor to be fit for the plough; but I am told, that in the bottom of the valley there is a good deal of cultivation; for the small remainder of the inhabitants choose, of course, to employ their labour on the best soil.

Quarry of Sila, or Pratimá Cullu. By the way I turned out of the road; and in order to examine a quarry of the stone called Sila, or Pratimá Cullu, I went in among the hills on my left to a small village, named Arsina Caray. The first name in the Sanskrit language means stone; the latter appellation means image-stone, as it is used for making idols. The quarry is in a hollow, which is surrounded by low hills that are sacred to Chicama. Many stones have formerly been dug, and have left a

considerable eavity; but, as the quarry has not lately been wrought, CHAPTER much rubbish has fallen in, and entirely hides the disposition of the strata. The whole of the strata that I observed between Maru- Sept. 22. Hully and Humpa-pura, on both sides of the quarry, run nearly north and south, and are much inclined to the plane of the horizon. These strata consist of a bad kind of the Pratimá Cullu, which crumbles into irregular masses, and is disposed alternately with those of schistose mica, intermixed with parallel layers of pot-stone. All these strata are in a state of decay. I have little doubt, but that the guarry itself is disposed in a stratum parallel to the others; but thicker, more compact, and less decayed. Lying round the quarry were many half-formed images. The largest that I saw was about eight feet long, three broad, and one and a half thick; but by digging deeper, larger masses might probably be procured. It is an indurated pot-stone, or rather a pot-stone intimately united with hornblende, and is capable of a fine polish. It approaches very near to the hornblende of Hyder's monument, but is softer.

Arsina Caray, or the prince's reservoir, is a small village sur- Arsina Caray, rounded by hills, which are covered by low trees and bushes. nure by which From time immemorial it has belonged to the Sucar of the Khálsa; it is held. that is, to the master of the mint. The farmers supply, at a regulated price, whatever charcoal he may want; and if there he any balance of rent due, they pay it in money. They are subject to the jurisdiction of the Amildar of Mahásura Naggara, and hence this tenure of the mint-masters is not called a Jaghire.

Maru-Hully, commonly corrupted into Marwully, signifies the Maru-Hully, second village; for when the dominions of the reigning family of Purnea. were confined to their original fee (Polyam), this was, next to Mysore, the most considerable place in their possession. It is, however, entirely exempted from the jurisdiction of the Amildar, having been granted by Hyder as a Jaghire to Purnea, who still holds it by the same tenure, and manages it by an officer called a Parputty. It is an open village, containing thirty houses of farmers, and ten of

Sept. 22.

CHAPTER l'abourers, with a few shop-keepers and artificers. They are very poor, having been completely plundered by the Lumbadies, a kind of traders in grain, that followed General Harris.

Car' Ragy.

The chief cultivation here is Car' Ragy, although the people allege that the rains do not begin earlier here than at Seringapatam; but in this, I imagine, they must be mistaken.

Shiva-bucturu, and Siv Acháryas.

Most of the cultivators in the Mysore district wear the Linga. Of these the Siv' Acharya Woculigas pretend to a much higher dignity than the others; and say, that only they and the Pancham Banifigas can be admitted to the order of priesthood. They are a tribe of pure Karnáta descent. They act as officers of government, as messengers, traders, farmers, and farmers servants. Disputes being settled by the Gauda, or chief of the village; and their Gurus taking cognizance of all transgressions against the rules of cast, they have no hereditary chiefs. The chief Guru, Swamalu, or throne (Singhasana), appoints an inferior Guru to a certain number of families. This person is a married Jangama, and attends at births and marriages, and takes cognizance of all transgressions. For less important ceremonies, such as bestowing the Linga and Upadesa, any Jangama suffices. On all these occasions the Jangama reads Mantrams in the vulgar language. At their marriages, and when he receives their Dhana, which is charity given in order to procure an absolution from sin, the Panchánga, or village astrologer, reads Mantrams in Sanskrit. The Jangamas cannot read the Mantrams which are necessary for this purpose. The Bráhmans, indeed, pretend that they are the only persons who have the power of taking away the sins of men; and they say, that, however willing, they cannot do it gratuitously; for the quantity of sin removed is exactly m proportion to the Dhana, or sum of money given. The performance of this ceremony is therefore one of the most essential duties of a Purbhita. The Jangama Gurus attend the Sw Acharyas at the annual ceremony performed in honour of their deceased parents; and, besides getting provisions at their visits, and certain dues for

Dhana.

performing all ceremonies, they get annually a Fanam or two from CHAPTER every person who is under their authority. None of this tribe acknowledge the Bráhmans as their Gurus; and all of them wear the Sept. 22. Linga, and consider Siva as the proper deity of their cast. They offer fruits and flowers to the Saktis, but never appearse their wrath by bloody sacrifices. They suppose, that after death bad men are punished in a hell called Nuraca; and that good men go to the feet of Iswara on mount Coilasa, and there become like gods. They call a man good, who prays constantly, who confers on religious mendicants great Dharma, or alms, who gives much Dhana, and who makes tanks or reservoirs, inns, and gardens. This tribe bury the dead, and abstain entirely from animal food, and all intoxicating The men practise polygamy. A man and woman of the same family in the male line cannot intermarry. In order, therefore, to prevent incest, they always marry in certain families that are known to be distinct from their own. The girls are marriageable both before and after the age of puberty. A widow cannot marry, but she may become a concubine of the kind called Cutiga; her children, however, in this case are considered as belonging to a bastard race, although they are still much better than outcasts. An adulteress is not always divorced; the Guru commonly makes up the dispute; and the cuckold, having paid a fine, takes his wife quietly back again. Sometimes, however, the man will continue obstinate; in which case the adulterer pays the fine to the Guru, and keeps the woman that he has seduced as a Cutiga. A woman that cohabits with a person of any other tribe, even with a Bráhman or Jangama, inevitably becomes an outcast.

Near Maru-Hully also there is a quarry of Sila, or image-stone. Quarry of The mass of rock is larger than that of Arsina-Caray, and has lately Sila. been wrought for the buildings that are now erecting at Mysore. Although it has been laid bare to a considerable extent, nothing stratified can be observed. The stone seems to be of a middle nature between that of Hyder's monument and the Sila of Arsina-Caray,

VIII. Sept. 23.

CHAPTER and to contain less hornblende than the former, but more than the latter. Large blocks may be procured, and perhaps of the whole it is the finest stone.

Alarm of the natives, from a dread of Corvées.

23d September.—In the morning I set out for Nunjinagodu, distant three cosses; and I intended, by the way, to visit a place from whence pot-stone is dug. After having gone half way, I discovered that the guide had deserted me; and, in order to procure another, I was forced to go back again to Maru-Hully. I found the quarry not a mile from that place; and was informed, that the stone-cutter who works it lives there, although I had in vain solicited the officer of government to procure me a workman of that kind to break some specimens of the image-stone. It must be observed, that I find more difficulty in acquiring a knowledge of the quarries and forests, than of any other subject of my inquiries. On the revenue of the country the natives are more communicative than I desire; and even in their accounts of the produce of their fields, the cultivators of the land adhere more to the truth than all ranks do, in answering queries relative to quarries and forests. It is evidently suspected, that my object in asking such questions is to find out materials for public works; and the natives are terrified at the thought of being again harassed with the Corvées to which in the reign of the Sultan they were cruelly subjected.

Quarry of pot-stone.

The pot-stone of Maru-Hully is used for making pots, dishes, and pencils. It differs from the image-stone only in containing more earth of magnesia; for it has hornblende as one of its component parts. It is readily scratched by the nail; but retains an excessive toughness; so that before it will break into fragments under the hammer, it is reduced to powder. Like those of the kindred stones that have been already described, its masses are irregularly angular. The surrounding strata are vertical, and run north and south.

Face of the country.

The road, by which I travelled to-day, leads partly through among the small hills that bound the vale of the Kapini on the north, and partly through the valley itself. Among the hills, almost all the fields of a good soil are cultivated; but many of the poorer ones are waste: some of the land that would appear never to have been cultivated seems to have a tolerable soil; but by far the greater Sept. 23. part can never be made to produce any thing, except a wretched pasture. In the valley, much good land is waste, much very poor land is interspersed, and the cultivation is extremely slovenly. The river winds much, and its course here is rapid. On its north side are several large temples in a ruinous condition. Near one of them is a village, which, from the comparative goodness of its houses, may be at once known to be chiefly inhabited by Bráhmans.

CHAPTER VIII.

At some distance from this I crossed the Kapini by a bridge, Bridge. which is here looked upon as a prodigy of grandeur; in Europe it would be considered as a disgrace to the architect of the meanest town. The arches are about five feet span; the piers are of nearly an equal thickness, and do not present an angle to the stream. The sides of the arches have scarcely any curvature, but are composed of two planes meeting at an acute angle. The parapet is rude, and the whole is composed of an irregular mixture of brick and stone. The pavement consists of rough and irregular flags, which form a very bad road. The bridge is, however, both long and wide, and is a great convenience for foot passengers, or merchants conveying their goods on oxen.

25th September. — Yesterday I had a febrile paroxysm, and at night Sept. 25. found myself unwell. In order therefore to take medicine, I remained here another day.

Nunjinagodu signifies swallowing poison; for it is a place sacred Nunjinagoto Iswara, who, on account of one of his exploits, is frequently temple and called by this name. Originally there was a small temple ten cubits Brahmans. square, and of the greatest antiquity. About six or seven hundred years ago, the country was entirely covered with forests. The Raja then in power brought inhabitants, and enlarged the temple to 200 cubits square. From that time frequent donations were made to the Bráhmans; some Rájas giving them in charity a thousand

## A JOURNEY FROM MADRAS THROUGH

VIII. Sept. 25.

CHAPTER Pagodas worth of land, and others giving lands to twice that annual value. Déva Ráya, the Dalawai of Mysore, built the bridge; and his brother, who succeeded him, and who was displaced by Hyder, was the greatest benefactor to this place of worship. This prince, named Carasur Nandi Ráya, adopted the mark of Siva, although his predecessors had been followers of the Sri Vaishnavam Brahmans. He made Nunjinagodu his favourite place of abode, and enlarged the temple to its present size, which is a square of 400 cubits. In the time of this prince the Brahmans of Nunjinagodu occupied 300 houses; and they possessed lands which gave an annual revenue of 14,000 Pagodas, or about 4700 l. The houses of the Súdras amounted to 700. The town was fortified by Nandi Ráya, who dispersed the Súdras into the neighbouring villages, and permitted none to remain near the holy place, but the Bráhmans, and the servants who belonged to the temple. Tippoo Sultan gradually deprived the Bráhmans of the whole of their lands, and gave them a monthly pension of 100 Pagodas. On the re-establishment of the Raja's government, they were put on the same footing with the Bráhmans of Mail-cotay; and they receive the income of a whole district, which has last year produced 4000 Pagodas, or about 13431. This district is managed by an Amildar, who is accountable to government for his conduct. In the reign of Tippoo, the temple suffered much; but at the expense of Bucharow, the Naib Dewan, it is now undergoing a repair. The fort is ruinous. The town at present contains 120 houses of Bráhmans, and 200 of Súdras. It is situated in the fork formed by the junction of the Kaundini with the Kapini or Kapila river. The Kaundini has its source from under the feet of an image of Vishnu, on a hill named Hémada Gopala, in the district of Gundal, of the Rája's dominions.

Kaundini river.

> The temples on the north side of the river Kapini are of very great antiquity. They are ruinous, but the images are still attended by Bráhmans.

26th September.—Having yesterday had a severe paroxysm, and CHAPTER being desirous of getting near assistance should my disorder have increased, I altered my intention of proceeding to Satteagala by Sept. 26. Coulanda, Arcotar, Hardena-hully, Homa, and Ellanduru, and returned ness of Serinto Mysore, which is four cosses distant from Nunjinagodu. At My-gapatam. sore I met with some friends, who informed me that Seringapatam was then dreadfully unhealthy; and Mysore being in a fine dry situation, I determined to remain there till my fever could be stopped.

The country through which I passed has formerly been mostly Face of the cultivated; but at present a very large proportion of the fields is waste. Were it in a good condition, it would be very beautiful. Several of the tanks are out of repair: near Mysore are two remarkably fine.

Except at Mysore and Seringapatam, I have in every part of the Difficulty in country experienced a difficulty in procuring forage. I have reason procuring forage. to think that this proceeds from the universal and long continued usage, of every person who belongs to the government taking without payment whatever forage he wants. At Seringapatam, and even here, the women of our Madras servants have been of great use. The officers of government are afraid to meddle with them, and they are very diligent, and bring in large supplies of grass.

27th, 28th, and 29th September.—While confined here, I sent for Sept.27—29. the stone-cutters; who, with the utmost obstinacy, would give me Quarries. no information whatever on the subject of the quarries. buildings here, the three most common stones are, a gray granite with large spots of black mica; a reddish granite; and a fine grained yellowish gneiss, like that of Mail-cotay. They are all probably from the hill that overlooks the town, and many of the blocks are of large dimensions. While I was at Seringapatam I had seen specimens of them all.

30th September.—Having escaped two periods without any return Sept. 30. of the fever, I went two Sultany cosses to Waracadu. The country of the coun-

Sept. 80.

CHAPTER has formerly been nearly all cultivated, and more than a half is now occupied. The fields are mostly inclosed, and are all high ground, or such as is fit for palm-gardens. There are some small tanks, the water of which is applied to the cultivation of sugar-cane and betelleaf. The Gauda, or chief of the village, says, that there is a number of people sufficient to cultivate all the fields; but the want of stock prevents them from undertaking so much. They suffered greatly from the depredations of the Lumbadies, or traders in grain, that last year followed the besieging army; and also from the epidemic distemper which, after the fall of Seringapatam, raged among the cattle. During the invasion of Lord Cornwallis most of the palm-gardens were destroyed.

Waracadu.

Waracadu is a Hobly, or division of Mahasura Ashta-gram district. It derives its name from Wara, wishes, and Cadu, to grant; from a temple in it, dedicated to Warada Raya, or Vishnu, the granter of wishes. This temple was built about 120 years ago by Doda Déva Ráya. This person was a natural son of Krishna Ráya, the Curtur of Mysore, and held the office of Dalawai, or prime minister, between forty and fifty years. This village was his favourite retreat; and, besides the temple, he built a fine tank from which the inhabitants are supplied with drink. The village is not fortified, and is said to contain 150 houses; but I think that estimation grossly exaggerates their number.

Oct. 1. Appearance of the country.

1st October.—I went two cosses to Taiuru. Part of the road passes among low hills covered with bushes, and abounding with antelopes. The soil of these hills is in general poor, and full of small stones; but they are not occupied by naked rocks, like those on the north side of the Cavery. In some places the soil seems to be tolerable: and sufficient marks remain to show, that some of it, which is now overgrown with bushes, has formerly been cultivated. Among the hills are some level grounds that are now cultivated; and in the most extensive of these is a fortified village in a very ruinous condition. Towards the Kapini the soil becomes better,

and is in a state nearly similar to that of the country through which CHAPTER I passed yesterday. Near the river is a canal, which comes from a dam on the Cavery at Madayena-hully, three cosses below Seringa-Oct. 1. patam; falls into the Kapini at Usocotta, a coss above Taiuru; and forms the space between it and the two rivers into rice fields, which are mostly under cultivation. The Kapini is here a fine broad river, and its basket ferry-boats occasioned a considerable delay in transporting my baggage. The cattle were obliged to swim.

Taiuru is a well-built mud fort, situated on the right bank of the Kupini, about two cosses from its junction with the Cavery. It contains 141 houses, with 11 in a suburb. Its Sanskrit name is Materupura, or mother-town; and its vulgar name, in the language of Karnata, has the same meaning. No tradition remains concerning its foundation, nor the princes who ruled it before the family of Mysore. It is the residence of an Amildar, whose district is separated from the Mahásura Ashta-grám by the Kapini river. It has no commerce; nor any manufactures, except the coarse cloth which the Whalliaru weave. In the two last wars, it met with no disturbance, nor did the inhabitants suffer from famine during the invasion of Lord Cornwallis. Last year more than usual of their cattle died Distemper of the distemper; but once in four or five years it generally pre-hornedcattle, vails, more or less.

In some villages of this district, the Gaudas, or chiefs of villages, Mannef of are hereditary; in others, the renter is called by that name. The collecting the land-tax. hereditary Gaudas seem to be preferred both by the farmers, and by the officers of government. Being personally acquainted with all the inhabitants, their orders are more cheerfully obeyed; and having been long resident in the place, they have better credit to enable them occasionally to borrow money for making up their rent at the fixed terms of payment. The rent of the dry-field is paid by three Kists, or instalments, which all become due before the Ragy harvest. In case of failure in the payment of these instalments, the crops are seized, and sold by the Parputty, or accomptant

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CHAPTER of the division. This officer sells also the government's share of the crops that are divided; and these sales are made at three different periods; as, by selling the whole at once, the market would be overstocked.

Cani, or Shaycana.

In this country there is a class of men called Cani, or Shaycana, who are generally Whalliaru, and always of some low cast, and who subsist by acting as sorcerers and diviners. Some of them derive their knowledge from the stars, and are considered as men of learning, but not as inspired by the deity; others rattle an iron instrument, and sing to invoke the gods, until their voice almost fails. They then appear as if drunk, and are considered as inspired. Concerning the causes and events of the diseases of men and beasts, both kinds are consulted. The causes which they assign are, the wrath of different gods; and at the same time they tell, whether or not the god will be pacified, and allow the object of his wrath to recover, and also how this may be obtained. In this part of the country the spirits of bad men are called Virikas, and are believed frequently to torment the living. The diviners are supposed to be able, not only to tell what Virika is afflicting a family, but also to expel the evil spirit. When a Virika seizes on the persons of his own family, he is driven out with great difficulty, and requires a sacrifice, and many prayers; but a strange Virika is not so troublesome; a diviner will take a Fanam and a half, and immediately dismiss him. Except the Bráhmans, Mussulmans, and those who pretend to the rank of Kshatri, every cast labours under this superstition.

The Toreas are a kind of the cast called Besta that in the southern parts of Mysore are very numerous, and are an original tribe of Karnata. They neither eat nor intermarry with the Bestas called Cabba, nor with those descended from families that originally spoke the Telinga and Tamul languages. They cultivate the fields, and gardens of Betel-leaf, Areca, and kitchen herbs; and act as ferrymen, armed messengers, palanquin-bearers, barners of lime, fishermen, and porters. They are a low kind of Súdras, and have no

hereditary chiefs; but government appoints a renter, who collects CHAPTER four or five old men of the tribe, and by their advice settles all disputes; and by fines, laid on with their consent, punishes all Oct. 1. transgressions against the rules of cast. The renter must always be a Torea, and he agrees to pay annually a certain sum. If the members of the cast behave themselves properly, he must pay this sum out of his own pocket; but this is seldom the case: the Toreas are apt to be irregular; and the fines which he levies, after paying the rent, leave in general a considerable profit, although they cannot be considered as heavy. They are as follow: for fighting, half a Fanam, or 4d.; for scolding, half a Fanam; for committing adultery with another man's wife, two Fanams and a quarter; and for having a wife that chooses to commit adultery, one Fanam and a half. the husband prefer giving up his wife to her seducer, he avoids the fine, which is then paid by the guilty man: but, as the women are bought by their husbands, the men are very unwilling to part with them, especially if they be good workers. The men buy as many wives as they can; for the women are very industrious, and assist even to support their husbands. A virgin costs thirty Fanams, and a widow from ten to fifteen. Both of these sums are given to the women's parents or relations. A Torea who has connection with a woman of higher rank is flogged, but not fined. If a man of higher rank corrupts the wife of a Torea, and the husband should choose to part with her, he may pay a shilling to the renter and keep her. The widows, or adulteresses, that live with a second man are called Cutigas; but their children are perfectly legitimate. The Toreas are permitted to eat animal food, but ought not to drink spirituous liquors. None of them can read. They bury the dead, and believe in a future state of reward and punishment; but they assign no place for heaven or hell, nor do they pretend to know how the spirits of good men are employed. The spirits of bad men continue to do evil. Some of the Toreas take the vow of Dáséri. The deity peculiar to the cast is Marima, a goddess that inflicts the small-pox

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CHAPTER on those who offend her. The Pújáris in her temples are Toreas, and the office is hereditary; but this order of priests are not above intermarrying with the laity. Some of the Torcas worship Vishnu also, and have for their Gurus the hereditary chiefs of the Sri Vaishnavam Bråhmans. Others again worship Siva, and, although they do not wear the Linga, consider the Jangamas as the persons to whom they ought to give Dharma; but, by giving Dhana to the Smartal Brahmans, the rich procure absolution; the poor must of course trust to the mercy of God. At marriages, and at the building of a new house, the Panchanga, or village astrologer, reads Mantrams.

Heganigaru, or Jotyphanadas.

There is a tribe of oil-makers, who in their mill use only one ox, and who are called Heganigaru. They call themselves Jotyphanadas; and, as they are not followers of the Bráhmans, do not acknowledge themselves to be Súdras. They will neither eat nor intermarry with the oil-makers who use two oxen. They eat with the other tribes that wear the Linga, but do not intermarry with any of them. They are a tribe of Karnata extraction; and, besides their proper business of making oil, they cultivate the fields and gardens, and deal in grain and cloth. They have hereditary chiefs called Chittigaras, who with the advice of a council of ten settle all disputes, and punish transgressions against the rules of cast. They are not allowed to eat animal food, nor to drink spirituous liquors. The men take several wives. The women, even after the age of puberty, continue to be marriageable; but widows are not permitted to marry, nor are any concubines of the kind called Cutigas allowed. Whenever, therefore, a woman commits adultery, she entirely loses cast. The Jotyphanada are divided into four or five families, and a man cannot marry a woman of his own family. These oil-makers can keep accompts, but they never read books. They bury the dead, and believe in a future state. Heaven is at the feet of Iswara; but it is not known how the spirits of good men will there employ themselves; nor can these people give any description of Nuraca, the

residence of the spirits of wicked men. They do not believe in CHAPTER Virikas, nor do they consult the diviners abovementioned. They all wear the Linga, and of course Siva is the principal object of their Oct. 1. worship; yet none of them occasionally pray to Vishnu. The men are ashamed openly to worship Marina; but in sickness, their women and children privately carry offerings of money and fruit to the priest of that idol. Their Guru is Cari-Baswa-Uppa, the Nidamavudy Swamalu, who sends his disciples to receive their contributions, to eat their victuals, and to give them holy water. These priests also attempt to take Dhana, and thereby excite the indignation of the Bráhmans, who consider themselves as the only persons sufficiently in favour with God to be able to procure an absolution from sin. The oil-makers seem to be sometimes of the same way of thinking, and give Dhana to the village astrologer, or to some Vaidika Brahman; and in proportion to the sum which they bestow, they expect a remission of sin. These Bráhmans, however, will not acknowledge that they perform the proper ceremonies for the heretics. They take the money, and mutter a few words in Sanskrit, which content the donor. The oil-makers receive the Linga from the Jangama of their village.

2d October.—I went five Sultany cosses to Malingy. From Taiuru Oct. 2. to Narasingha-pura is three cosses. Near both places the country of the counis very beautiful, and well cultivated. Every field is enclosed with try. quick-set hedges, the whole being high ground without rice-land. In the middle between these two places, the soil is poor; but formerly it has been all cultivated, and would produce good crops of Huruli and Shamay. The present stock is only adequate to cultivate the richer grounds near the villages, and the greater part of the country is waste.

Narasingha-pura contains about two hundred houses; and, many Narasinghaof its inhabitants being Bráhmans, it is better built than usual; it pura. has two considerable temples, and stands on the bank of the Cavery,

try.

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Oct. 2.
Appearance of the coun-

CHAPTER immediately below the junction of the Kapini, which is six Sultany VIII. cosses from Seringapatam.

About a mile below Narasingha-pura is a small village, named Nilasogy; and about two miles from Malingy a small rivulet enters the Cavery, after having passed the town of Moguru, from whence it derives its name. Between Nilasogy and the Moguru rivulet the road passes through one of the finest plains that I have ever seen. It consists of a rich black mould fit for the cultivation of cotton, wheat, Carlay, and Womum; but at present it is almost entirely waste. The people say, that they have never recovered from the devastation which was committed in the old Marattah invasions, especially in one that happened about forty years ago. In the last war also they suffered considerably from the allied armies. East from the Moguru rivulet the country is rather higher, and the soil is somewhat sandy, but still very good. Some part of the black mould contains calcarious nodules, and by the natives is then called Carulu.

Cultivation of rich black soil.

The principal crop in this fine country is cotton, which here is never raised in soil that contains calcarious nodules. The black soil that is free from lime is divided into three qualities. The first gives annually two crops, one of Jola (Holcus sorghum), and one of cotton; the two inferior qualities produce cotton only. As, however, next to cotton, Jola is the most considerable crop, and is never sown but on black soil of the first quality, it must be evident, that the two poorer soils form but a small part of the whole.

An old measurement.

In this part of the country a land measure was formerly in use; and in the revenue accompts the fields are all stated to contain a certain extent. According to this measurement,  $4\frac{3}{4}$  cubits make an Alitycolu, or measuring-rod; and 60 rods square are a Nurmunnu, Nurguny, or Nurcumba. Wherever a foolish prince, under pretence of his arm being long, has not established a royal cubit longer than the natural, eighteen inches may be received as a general

standard. Taking the cubit at this length, the Nurcumba will be CHAPTER  $4\frac{195}{1000}$  acres. On measuring a field said to contain one Nurcumba, I found it to be  $4\frac{769}{1000}$  acres, which comes so near as to establish Oct. 2. the accuracy of the old measurement.

In this part of the country accompts are kept in an imaginary money, called Gytty Varaha, which contains twelve Canter' Raya Fanams. The weight used by the farmers, in selling cotton, is as follows.

- 5 Dudus= 1 Polam=1b. 0,1264 decimal parts.
- $60 \ Polams = 1 \ Cuttu =$ 7,5835.
- 50 Polams= 1 Tucu = 6.3195.

The Colaga of grain here contains only  $4\frac{1}{2}$  Seers, and the Candaca is nearly 3 123 bushels.

So much having been premised, I proceed to state the account given by the farmers of the cultivation in this neighbourhood.

cus sorghum.

The best black soil produces annually two crops, the first of Jola, Jola, or Holthe second of cotton. In the month following the vernal equinox, after having manured the field with dung, plough twice. After the first good rain that happens in the two following months, sow the Jola seed three Colagas on a Nurcumba, or 0,111 decimal parts of a bushel on an acre. The seed is sometimes sown broad-cast, and ploughed in; or sometimes dropped in the furrow after the plough. On the 12th, 20th, and 28th days, superfluous plants must be destroyed by the hoe drawn by oxen; but if the rains are slight these hoeings must be somewhat later. In the intervals the weeds must be pulled out by the hand. In three months the Jola is ripe, and in a good crop produces 1800 Seers from a Nurcumba, or nearly twelve bushels from an acre.

In the month which immediately precedes, or in that which fol- Cotton. lows, the autumnal equinox, whenever the Jola has been cut down, plough the field, and hoe it twice with the Cuntay. The field is then dunged, and after the first rain is again ploughed. The cotton seed is then put in drills, distant from each other one cubit.

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CHAPTER A furrow is drawn with a plough; at every three or four inches distance a seed is dropt into it, and is covered by another furrow. Then, to smooth the field, a harrow of thorny bushes is dragged over it. The hoe called Cuntay is drawn by oxen between the drills once every eight days until the cotton is ripe, which happens in the course of the two months immediately following the vernal equinox. At the end of the first month the earth is thrown up by the plough, in ridges, toward the drills of cotton. The moment the cotton has been gathered, the field is again ploughed for Jola. A Nurcumba of land requires between seven and eight Seers of seed, and in a good crop produces 150 Cuttus of cotton, worth, when cheap, 10 Varahas, or 120 Fanams; and, when dear, 15 Varahas, or 180 Fanams. At this rate, a good crop will be about 271 lb. an acre; which, of course, selling low, will be worth 1 l. 15s. 8 d. A poor crop is 60 Cuttus from a Nurcumba; which, selling dear, is worth 72 Fanams, being at the rate of  $108\frac{1}{2}$  lb. from an acre, worth 10s.  $8\frac{1}{2}d$ .

> On the two inferior soils, that do not produce a crop of Jola, the cotton yields from 48 to 72 Fanams a Nurcumba, or from 7s.  $1\frac{1}{2}d$ . to 10s.  $8\frac{1}{2}d$  an acre. In the two months following the vernal equinox this soil is hoed with the Col Kudali. It is then dunged and ploughed, and afterwards hoed with the Cuntay. At the seed season the cotton is sown, and afterwards managed exactly as in the first quality of soil. The quality of the cotton raised on the two poorer kinds of soil is preferable to that which is raised on the best. The whole is sold at weekly markets in Ganiganuru, Singanaluru, Colapura, Talacadu, Haymigay, Molura, Agara, Narasingha-pura, Taiuru, Coleagala, and other places on this side of the Cavery. It is all wrought up into coarse cloths, for country use, by the casts called Whalliaru, Dévangas, and Tricoluro Dasas, who reside in the neighbourhood. None is sent to Bangalore, Saliem, or the other manufacturing towns; but were the whole country cultivated, a great supply of cotton might be procured.

Navonii, or

Next to Jola, Navony is the most considerable crop. It thrives CHAPTER best on the richest black soil; but it is raised also on that which contains lime, and on other inferior land. In the two months which follow the vernal equinox the field is dunged, and is then ploughed Panicum itafrom two to four times. In the two following months, the seed is sown broad-cast, and covered with the plough. On the 15th day the hoe drawn by oxen is used. On the 30th the weeds are removed with the Calay Cudugulu (Plate II. Figure 2.). In four months it ripens. A Nurcumba of land sows six Seers, and in a good crop produces 900, and in a bad one 540 Seers. An acre, therefore, sows only 0,05 bushels; in a good crop it produces 7 446 bushels, and in a bad one  $4\frac{4.57}{1000}$  bushels. The Navony does not exhaust the soil.

The next most considerable crop here is Carlay, which so ex- Carlay, or hausts the soil of even the richest fields, that it is seldom taken num. from the same ground oftener than once in seven years. It is generally sown after Jola in place of cotton, and must be followed by wheat, Wull' Ellu, or Ragy. The two former may be followed by cotton, the Ragy cannot. In the third year, when Ragy has been used, the field is sown with Navony or Jola, succeeded as usual by cotton. Immediately after the Jola has been cut, which is about the autumnal equinox, the field is ploughed once, then dunged, and then ploughed three times, all in the course of a month. In the beginning of the second month after the autumnal equinox, the Carlay is sown in drills like the cotton; but the drills are only half a cubit distant. Between the drills, on the 15th day, the hoe drawn by oxen is used. On the 30th, the weeds are removed by the Calay Cudugulu. If the soil be rather hard, about the 33d day the hoe drawn by oxen must be again used. In four months the Carlay ripens. Its produce, from the same extent of ground, is the same with that of Navony; but a Nurcumba requires 45 Seers of seed, or an acre  $1\frac{489}{1000}$  peck. Carlay is sometimes sown after a fallow; in which case the ground is prepared in a similar manner as for cotton

VIII.
Oct. 2.
Wull' Ellu,
or Sesamum.

CHAPTER in the two poorer soils. The produce in this case from a Nurcumba in a good crop is 1080 Seers, or of an acre almost nine bushels.

Wull Ellu is the next most considerable crop, and is sown after Carlay or Ragy, and before cotton. In the two months following the vernal equinox, the field is dunged, and, according to the hardness of the soil, is ploughed from once to three times. In the two months which precede midsummer, the seed is sown broad-east. On the 15th day the superfluous plants are destroyed by the hoe drawn by oxen; and on the 30th the weeds are removed by the Calay Cudugulu. The Sesamum ripens in three months and a half. A Nurcumba requires six Seers of seed, and produces 360 Seers. An acre, therefore, gets  $1\frac{3}{1000}$  quart of seed, and produces rather less than three bushels.

Wheat. Caru erop.

The quantities of wheat and Womum raised here are nearly equal. The wheat is of the kind called Hotay Godi, or the Triticum spelta; and there are two seasons for its cultivation, the Hainu and Caru. It is sown on the best soil only, and always after a crop of Carlay. The Caru season, when the rains set in early, is always preferred, not only as the wheat is then more productive, but as in the same year it may be followed by a crop of cotton, which is not the case with the Hainu wheat. In the two months following the vernal equinox, the field for Caru wheat is dunged, ploughed two or three times, and then hoed with the Cuntay, which is drawn by oxen. The seed is then sown, in drills one cubit distant, by dropping it in the furrow after a plough. On the 15th, 28th, and 35th days the hoe is again used; and two or three days afterwards the weeds are removed by the Calay Cudugulu. This wheat ripens in three months and a half, and is immediately followed by a crop of cotton. A Nurcumba requires seven Colagas of seed, and in a good crop produces 540 Seers. An acre, therefore, sows a little more than one peck, and yields almost four bushels and a half. The wheat is liable to be spoiled by a disease called Ursina Mari; owing to which, in the course of one day, it becomes yellow, and dies.

When the rains are late in coming, the Hainu crop of wheat is CHAPTER taken after Carlay. Cotton cannot be taken in the same year. The manner of cultivation is the same as for the Caru crop, only the Oct. 2. season is different. The ploughings are performed in the month which precedes the autumnal equinox, or in the beginning of that which follows. At the end of this month the seed is sown. The produce is about one half only of that of the Caru crop.

Hainu wheat.

The Womum, or Anethum Sowa, of Dr. Roxburgh (MSS.), is sown Womum. indifferently on all soils, nor does it injure any succeeding crop; on the contrary, it is thought rather to improve the soil. The field is prepared as for the Hainu crop of wheat. In the beginning of the second month after the autumnal equinox, the seed is sown broadcast, and covered by a ploughing. On the 15th day it is hoed with the Cuntay; and on the 30th the weeds are removed by the Calay Cudugulu. In four months it ripens. A Nurcumba requires for seed 22½ Seers; and 10 Candacas, or 900 Seers, are reckoned a good crop. The seed for an acre is therefore almost  $1\frac{1}{2}$  gallon, and the produce almost 7½ bushels.

On this side of the river, Cabbay Bumi, or the red soil proper for Ragy, or Cy-Ragy, is in very small quantities; so that this grain is sometimes nosurus Corosown on the Eray Bumi, or black soil; in which case the crop is poor. A Nurcumba requires  $22\frac{\pi}{2}$  Seers of seed, which is at the rate of 1½ gallon an acre. A Nurcumba of black soil in a good crop produces 1080 Seers, while the same extent of red soil yields 1800 Seers. The former is at the rate of almost ten bushels, the latter at almost fifteen bushels, an acre. Here the Hainu Ragy only is sown.

On red or the poorer soils Huruli is also sown. The seed is  $31\frac{1}{2}$  Huruli, Do-Scers a Nurcumbu, or a trifle more than a peck for the acre. The or Horseproduce in a good crop from a Nurcumba is 900 Seers, or from an grám. acre seven bushels and a half.

It must be observed, that the farmers here allow a much smaller Produce unproduce from the same extent of ground, than has as yet been done by those of any other place. It is true, that even on their dry-field

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CHAPTER they have in general two crops in the year; and it may therefore be supposed, that by this means the soil is exhausted, and produces little. This may in part account for the poverty of their crops; but I am inclined to believe, that the farmers wanted to deceive me, and alleged their lands to be less productive than they really are.

Western ghats.

The mountainous tract which forms the western Ghats is visible from Malingy, and rises very high above the country to the westward.

Malingy and

There are two Malingys: this, called Tady; and another, which town covered is called Hossa, and is situated in the Company's territory. Tudy by sand-hills. Malingy is a small open village; but before the Marattah invasion it had a fort, and was a considerable place. The last war has occasioned several ruins. Concerning its governors before it became subject to the Rajas of Mysore, no tradition is current. part of the Talacadu district, the chief town of which is situated on the north bank of the river, and contains about two hundred houses, and a celebrated temple dedicated to Iswara. Between it and the present channel of the river were formerly situated a large fort, and a great number of temples, which for many years have been overwhelmed by sand-hills. The bank at Malingy is steep, and the principal stream of the river comes near it; yet these sand-hills appear to be higher; and, to the traveller, coming all the way from Narasingha-pura, they make a very conspicuous figure. They are said to be yearly increasing in height; and no part of the former city is now to be seen, except the tops of some of the temples, and cavaliers. This is a curious phenomenon; but circumstances would not permit me to investigate the particulars on the spot. The natives attribute it to the prayers of a woman, who was drowned while she was crossing the river to visit the place, and who, while dying, wished that it might be overwhelmed by sand. One temple only has escaped; the legend concerning which is extremely absurd. A mendicant came one day to Talacadu, intent on making an offering to

Mahádéva, or Iswara. The temples dedicated to that idol were, CHAPTER however, so numerous, that he was much at a loss how to procure an offering for each, so as to avoid giving offence to any idol that Oct. 2. might be omitted. With his whole means, which were very slender, the holy man purchased a bag of pease, and offered one at each temple; but all his pease were expended, and one idol still remained, to which no offering had been made. Of course it was highly offended at the preference given to the others by a person of his holiness; and, to avoid their insolent boasting, it transported itself across the river, where it now stands at Malingy, while its former companions are buried in sand. Near it is a Sila Sásana, or inscription engraved on stone; but unfortunately it is not legible, as it might probably have thrown some light on the history of Talacadu.

The Cavery here is at present a fine large and deep river, flowing Cavery river, with a gentle stream about a quarter of a mile in width. In the hot season it is fordable; but after heavy rains it rises above its present level ten or twelve feet perpendicular, and then its channel is completely filled. Once in nine or ten years it rises higher, and occasionally sweeps away a hut; but its floods are never very destructive.

The only ferry-boats on this large river are what are called Do- Its ferries. mies, or baskets of a circular form, eight or ten feet in diameter, and covered with leather. They transport with tolerable safety men and goods; but cattle must swim, which is both a fatiguing and a dangerous enterprize. Bamboo floats provided with a hawser, so as to form flying bridges, would make an excellent and cheap conveyance. From the north side of the Cavery a fine canal is taken by means of a dam, and waters much land near Talacadu.

3d October.—I went to Satteagala, distant from Malingy four Sul- Oct. 3. tany cosses; but, owing to the deepness of the roads, I was obliged Route to Satteagala. to take a circuitous route, a circumstance that never happened to me in any other place above the Ghats. A small village, named

## A JOURNEY FROM MADRAS THROUGH

Oct 3. Coleagala.

CHAPTER Calcuru, is the last in the present dominions of Mysore. Mulur, the first place in the Company's territory, is one coss and a half from Malingy, and is a pretty large open village.

> From Mulur I went one coss to Coleagala, an open town which contains above 600 houses. It is the residence of a Tahsildar, or chief of a Taluc, or district; for the officers in the Company's territory differ from those in Mysore. It has two large temples, and is a considerable mart for the traders between Seringapatam and the country below the Ghats, and near the Cavery. Colvagala signifies the plundered town; which appellation was bestowed on it after it had been pillaged while under the dominion of Ganga Rája, to whom it formerly belonged.

State of the country.

Irrigation.

Works of Ráma.

From Coleagala to Satteagala the distance is two cosses and a half. The country through which I passed to-day is in general very fine, and much better cultivated than that between Narasingha-pura and In fact, near Mulur and Coleagala the cultivation is equal to any that I have seen in India, and consists chiefly of ricefields watered by means of several large reservoirs. In the Coleagala district there were between forty and fifty reservoirs, which about eighty years ago were put in good order by the Dalawai of Mysore, Doda Déva Ráya Wodear. From that time until the country came into the Company's possession, after the fall of Seringapatam, they have been neglected. Six of them have now been completely repaired; and orders have been issued for perfecting the remainder, as soon as the dryness of the season will permit. I passed through the grounds of only one of these decayed reservoirs, and found them entirely waste. I saw also many dry-fields waste, especially near Satteagala, where the soil is poor; but in most places it is capable of producing Huruli. In this part of the country there are very few fences. According to tradition, the god Ráma, when on his way to Lanká, formed the great reservoir at Satteagala, and a fine dam named Danaghiry, that waters much land below the town.

Sattcagala.

Satteagala formerly belonged to Rajas who were of the same CHAPTER family with those of Mysore. On the death of Put' arsu, the last Oct. 3. of them, without issue, he was succeeded quietly by his relation Canterua, the Curtur of Mysore. The fort is of considerable size, and in good repair; but at present contains very few houses: the whole number, both in the fort and suburbs, amounts only to about 250. In a Marattah invasion before the time of Hyder, it was entirely ruined, and most of the children and cattle were swept away. Before the invasion of Lord Cornwallis, about 1000 houses had been again assembled. At that time a party of Marattah plunderers ravaged all this neighbourhood; and they were followed by a dreadful famine, in which 400 of the families in Satteagala perished of hunger. In the last war, the town was first plundered by the Lumbadies, or dealers in grain, belonging to the British army, and then burned by orders from the Sultan. The inhabitants are now hardly able to defend themselves from the beasts of prey, with which, from its depopulated condition, the country abounds.

The black soil fit for the cultivation of cotton extends over the Extent of the lands of the following towns and villages: Nunjinagodu, Moguru, Narasingha-pura, Ellanduru, Sosila, Malingy, Muluru, Cunturu, Alahully, Homa, and Mangala, and is mostly in the Rája's dominions. In the Coleagala district the soil is mostly red, and is fit for the cultivation of rice and Ragy; of which nearly equal quantities are raised.

In this part of the country the village god is Baswa, or the bull Baswa, the of Siva, whose Pújári, or priest, is quite distinct from the Gauda, village god. or chief of the village. By Major Macleod, the collector, the Gaudas. Gaudas are not allowed to rent their villages; but they receive a fixed salary, and collect the revenue from the farmers. Here this office was never hereditary; but that of the Shanabogas, or accomptants, always was.

In the Coleagala district are some sandal-wood trees, which are Sandalnow cutting by the collector, who employs a Mussulman agent.

Oct. 3.

CHAPTER Fifteen years ago the Sultan cut the whole of the large trees. Like the sandal of Magadi, it thrives in the high forests of Mod-hully and Mahá-dbvéswara, as well as in the skirts of the cultivated country; but it is not of so good a quality as that on the western frontier.

Forests.

The greater part of the mountains in this district produce only stunted trees, or bushes. Mod-hully and Maha-deveswara are the only ones that are clothed with timber trees; but in size these are greatly inferior to those of the western Ghats. Some teak and Biriday of a good size may be procured.

Oct. 4. Island of Sivana Samudra.

4th October.—I went to visit the island of Sivana Samudra, or the sea of Siva, and its noble cataracts. From Sutteagala, the upper end of the island is one Sultany coss; and its whole length is said to be three cosses, or probably nine miles; but in width it is no where above a mile. The island, at its upper end, is not much raised above the level of the river; but, as its lower end does not sink, while the river falls very rapidly, toward its eastern end it appears to be very high. Owing to the rapidity of the river, and to deep cavities between the rocks and stones of its channels, even in the hot season, there is only one ford that leads to the island, and that is a very bad one in the southern branch. The island is therefore by nature very strong.

Cataract of Gangana Chuki.

The northern branch of the river is the most considerable, and soon divides into two channels, which form a smaller island, named Nellaganatitu. The channel of this branch next the northern continent is the smallest, and is nearly level until it comes opposite to Gangana Chuki, a place on the large island about three miles from its upper end. There it precipitates its water over a perpendicular rock, I suppose nearly two hundred feet high. The stream is very considerable; but is divided by a small island into two great branches, and by large rocks into four or five portions, which before they reach the bottom are quite broken into foam. The water which runs between the two islands is the most considerable portion

of the northern branch of the river. It runs with vast rapidity CHAPTER over and among immense rocks, until it comes to Gangana Chuki, where it rushes down into the abyss, which a little way below re- Oct. 4. ceives also the other portion. There it is hidden from human view in a cloud of vapour, which is formed by its violence, and which is at times visible even from Satteagala. From this circumstance I could not ascertain how far this fall is entirely perpendicular. If it be quite so, the whole height will be about a hundred feet; but at times I thought I could see obscurely through the cloud a projection of the rock, which divided the fall into two stages. I have never seen any cataract that for grandeur could be compared with this; but I shall not attempt to describe its broken woody banks, its cloud of vapour, its rainbow, its thundering noise, nor the immense slippery rocks from whence the dizzy traveller views the awful whirlings of its tumultuous abyss. All these, except in magnitude and sublimity, exactly resemble those of the other waterfalls that I have seen. The pencil of an artist might be well employed in imitating its magnificent scenery, and would convey a better idea of its grandeur than my power of description can venture to attempt.

The island of Sivana Samudra is in general rocky, with vertical Island of Sistrata running north and south. The principal stone is a gneiss, of vana Samudra. which the great buildings of Ganga Rája are constructed, and which may be cut into blocks of large dimensions. Near the upper end of the island, bridges have been constructed across both branches of the river. They were formed, like that at Seringapatam, of long stones placed upright as pillars to support others laid horizontally, so as to form the road. Both bridges have long ago been broken, but many of the pillars still remain erect. Two dams and canals from the southern branch of the river supply the island with water, and, if in good repair, ought to supply with water as much ground as would sow 3510 Seers of rice. In order to magnify the wonders.

sland of Si-

Oct. 4.

CHAPTER of the island, this quantity of seed in the accompts is called 90 Candacas, a nominal Candaca of 39 Seers having been purposely introduced. Owing to the disrepair of the dams, two thirds of this land is at present waste. On the island there is a good deal of land fit for the cultivation of dry grains; and it would be a fine situation for a village, were it not possessed by a Muni; on which account, and owing to the terrible disasters attributed to this demon's wrath, no Hindu will settle in the place. The people of Satteagula, at the time of cultivation, carry over their cattle, and sleep with them in one of the old temples, which is a defence against the tigers that are said to be very numerous. When they have committed the seed to the ground, they return home, and wait there until the time of harvest; when they again go to the island, and bring away their crops.

Munis, or demons.

The Munis of Karnúta, who are demons of the first magnitude, must be carefully distinguished from a kind of Brahmans of the same name, who have been saints of the greatest holiness, and whose memories persons of all ranks venerate. The Bráhmans never openly worship the Munis; although it is alleged, that in private many of them make offerings, in the same manner as they do to the Saktis, or destroying female spirits. Among the followers of the Bráhmans below the Ghats, the worship of the Munis, who are male destructive spirits, is very prevalent.

Mussulman hermitage.

The only persons who defy this devil, and the tigers, are two Mussulman hermits, that dwell at Gangana Chuki. The hermitage is a hut open all round, placed opposite to the tomb of Pirca Wullay, an antient saint, and surrounded by some neat smooth areas, and a number of flowering and aromatic trees introduced from the neighbouring forests. One of these hermits was absent on business; the other had no defence from the tigers, but his confidence in the holiness of the place, and in his own sanctity, of which he seemed to have a very favourable opinion. He told me with great complacency, that he had offended Major Macleod by not answer- CHAPTER ing that gentleman's questions; having been at the time more inclined to read the Khorán than to converse with an infidel. appears to be an ignorant bigot; but the man who is absent is said to possess more conciliating manners. In the reign of the Sultan, these hermits received very frequent visits and many presents from the Mussulman officers, and their families. They are now almost deserted, and subsist on a Candaca sowing of free-gift-land that they possessed on the island, and of which they have not been deprived.

Oct. 4.

5th October.—Having remained all night near the abode of the Oct. 5. hermit, in the morning I crossed over to view the cataract of the Birra Chuki, southern branch of the Cavery, which is also about three miles from the upper end of the island. The river there is very wide, and in its channel contains a number of rocks and small islands, the largest of which is called Birra Chuki. The precipice at the southern cataract may be about a hundred feet high, and forms part of the arch of a large circle, down which the river is thrown in ten or twelve streams. In the center is a deep recess in form of a horse-shoe, down which the principal stream falls; and, having been collected into a narrow channel, rushes forward with prodigious violence, and again falls down about thirty feet into a capacious basin at the foot of the precipice. In the dry season two channels only contain water. The month immediately following the summer solstice is the most favourable for viewing these water-falls, as the river is then at its greatest height. The one on the southern branch contains many beauties; and as a stair has been made, so as to give easy access to the side of the basin, and to afford a fine view of the whole, I think it is by far the most agreeable object of contemplation. The access to Gangana Chuki is very bad; and a descent to the river there is both fatiguing and dangerous. Its cataract is, no doubt, more sublime than the other; but in viewing it the mind

Raja.

Oct. 5. City of Ganga

CHAPTER is impressed more with awe at its tremendous force, than with plea-VIII., sure at its magnificence.

From the falls of Birra Chuki I went about a mile to the eastern gate of the old city of Ganga Rája. On the walls here some red stains are shown with great gravity, as the blood of the inhabitants who were killed when the place was taken. From this gate a straight wide street may be traced, for about a mile and a half, to another gate that leads to the ruinous bridge over the southern branch of the river. On one side of this bridge is a large temple, and on the other the ruins of the palace, where I was shown the baths in which the Rája sported with his women.

History of Ganga Rája.

On my return to Satteagala, an old Bráhman, the historian of the place, was brought to me. He had no written documents; but related the following account, on the authority of tradition. About 600 years ago Ganga Rája, of the Anagundi family, was sent hither by his kinsman, the king of Vijaya-nagara, to govern the neighbouring country. On examining all the places in the vicinity, he found none so fit for erecting a city in which he might reside, as the island of Sivana Samudra, where there then were two or three small villages. The inhabitants of these informed the prince, that they lived there by the permission of the Muni; and unless that could be obtained, certain destruction would await the new built city. order to obtain the favour of the Muni, the Rája made daily large offerings of fruits and rice, and prayed incessantly; till at length the demon appeared to him in a dream, and informed him, that he might lay the foundation of the new city whenever a signal was made by the blowing of a Conch. The Raja, having prepared every thing, was waiting for the signal, when an unlucky Dáséri passed by, blowing on his conch, as is usual with that kind of mendicants. This having been mistaken for the signal, the foundation of the city was immediately laid. Half an hour afterwards the Muni gave the true signal; at which the Rája, being alarmed, had again

recourse to offerings and prayers. Moved by these, the Muni ap- CHAPTER peared to the Rája, and informed him, that, as he had begun to build the city at an improper time, it could not be permitted to Oct. 5. stand long. Out of his personal regard for the prince, however, the Muni would cause the city to flourish for three generations. Ganga Rája accordingly reigned there in great magnificence, and died in peace.

Nandi Rája, the son of Ganga, met with many miraculous adven- Nandi Rája. tures, and at length was defiled by eating, unknowingly, with a certain servant of the Whallia cast, who had the power of rendering himself invisible, and who, while in this state, partook of his master's food. On this occasion, the prince consulted the Bráhmans, who advised him to put himself to death. He accordingly delivered the kingdom to his son, and, having persuaded his wife to accompany him, they blindfolded a horse, and, having mounted him, precipitated themselves into the cataract at Gangana Chuki.

Ganga Rája the second enlarged the city greatly, and lived with Ganga Rája much splendour. He had two daughters, whom he gave in marriage to the two chief *Polygars* in the neighbourhood. The one was married to the Rája of Kilimaly, a place now in ruins, and about four cosses from Satteagala. The other daughter was married to Buc' Ráia, Rája of Nagara-Caray, one coss east from Madura. These marriages were very unhappy; for the pride of the ladies gave their husbands constant disgust. They were continually upbraided for not living in equal splendour with their father-in-law; and at length, having consulted together, they determined to humble their wives, by showing that their power was superior to that of Ganga Rája. Having assembled all their forces, they besieged Sivana Samudra; but for a time had very little success. The siege had continued twelve years, without their having been able to penetrate into the island, when the two Rajas found means to corrupt the Dalawai or minister of Ganga Rája. This traitor removed the guards from the only ford, and thus permitted the enemy to surprise

Oct. 5.

CHAPTER the place, while he endeavoured to engage his master's attention at the game of chess. The shouts of the soldiery at length reaching their ears, the prince started up from the game. The Dalawai, who wished him to fall alive into the hands of his sons-in-law, endeavoured to persuade him that the noise arose merely from children at play; but the Raja, having drawn his sword, first killed all his women and children, and then, rushing into the midst of his enemies, fought, until he procured an honourable death. The sonsin-law, on seeing this, were struck with horror, and immediately threw themselves into the cataract at Gangana Chuki; and their example was followed by their wives, whose arrogance had been the cause of such disasters. Jagadéva Ráya of Chenapattana, and Sri Ranga Raja of Talacadu, the two most powerful of the neighbouring Polygars, then came, and removed all the people and wealth of the place; and ever since the Muni has remained in quiet possession of his island.

True date of these events.

There can be no doubt, that the time of the foundation of the city in Sivana Samudra is later than its historian stated. Six hundred years from the present time would make Ganga Raja the first anterior to his ancestor Harihara, the first king of Vijaya-nagara. I afterwards learned, that Jagadéva's grandson was alive, and governed a large territory, in the year of Saliváhánam 1546. We may allow a hundred years for the reigns of the three princes of Sivana Samudra and of the three Polygars of Chenapattana, which will make the foundation of the city to have happened in the year of Saliváhánam 1446, or 188 years after the foundation of Vijaya-nagara, and 277 years before the present time.

Antient territory of Mysore, and the usurpations of that family.

At the time of the fall of Ganga Raja the second, it is said that the Mysore Rájas were very petty Polygars, and possessed in all thirty-two villages. Other Polygars governed Taiuru, Womaluru, Moguru, Mangala, Ellanduru, Hardena-hully, &c. &c. all places in what our maps call Mysore proper. The first rise of the family is said to have been their destroying the Rája of Sri-Ranga-Pattana,

called by us Seringapatam. This prince possessed the two districts CHAPTER called Ashta-grams, and was of the blood of the Rayalus, the sovereigns of the country; for after the death of Ráma Rája, who was Oct. 5. killed on the banks of the Krishna before the middle of the fifteenth century, several princes of the royal family retired to different strong holds, and for some time retained a certain power, until it was gradually overwhelmed by their rebellious subjects the Polygars, or by Mussulman and Marattah invaders.

It is said, that during the hot season some diaphanous shining Crystal. stones are found in the channel of the Cavery above Gangana Chuki. I could procure no specimen; but from the description of the natives I suppose that they are rock crystal.

6th October.—I went three computed cosses, called Sultany, to Oct. 6. Singanaluru. The distance could not be above nine or ten miles; Cosses, or Hardaries. so that the cosses called here Sultany are not longer than the usual computed cosses or Hardaries of the country above the Ghats.

On the road I came first to Pallia, a considerable open village, one coss and a half south from Satteagala, and one coss from Coleagala. The interjacent country is beautiful, and lies immediately west from the range of mountains that crown the summit of the eastern Ghats, and which are from about 1500 to 2000 feet, in perpendicular height, above the level of the upper country. Although there is here much waste land, the country is better cultivated than most parts of the Mysore dominions, and wants only fences, and a large supply of inhabitants, to be complete. There are many large tanks; but these not having been yet repaired, there is at present very little rice cultivated. From Pallia to Singanaluru the road leads east through a fine valley, but not so well cultivated as that to the westward of the hills. About nine-twentieths of the fields are uncultivated. All the tanks have been in ruins for thirty years; and their cavities, which consist of a fine black mould, are cultivated for Jola, wheat, Carlay, and cotton. In this mountainous

VIII. Oct. 6.

CHAPTER tract, which extends from the Cavery to Gujulhatty, and includes the greater part of the Coleagala and Talemaly districts, that belong to the Company above the Ghats, it is said that the hills occupy one half of the space, and that arable vallies occupy the remainder. Viewed from a little distance to the westward, the hills appear to form a continued chain of mountains. The number of inhabitants in any part of this tract, especially toward the south, according to the report of the natives, is very inadequate to its cultivation; but every where, at some distance, there are villages scattered. The hills are not so rocky as in the range extending north from Capala Durga, but they produce hardly any timber. At this season however, from the bushes and grass with which they are clothed, they possess considerable verdure. On these mountains the inhabitants pasture their cattle, and raise a considerable number, although they deny having any flocks for breeding, like the herds of Madhu-giri. The pasture is sufficient to support many more than the present stock. There is here no Gydda Cavila, or forest renter.

Singanaluru.

Singanaluru has a small ruined fort, which has been deserted ever since it was plundered by the Marattahs before the government of Hyder. Previous to the invasion by Lord Cornwallis, the suburb contained a hundred houses; but having been plundered by the Brinjáries, or Lumbádies, that brought grain to his army, the bulk of the inhabitants perished from hunger. It now contains thirtyfive houses, and has a temple dedicated to Baswa, or the bull of Iswara.

Worship of the bull.

The people in this part of the country consider the ox as a living god, who gives them their bread; and in every village there are one or two bulls, to whom weekly or monthly worship is performed; and when one of these bulls dies, he is buried with great ceremony. These objects of worship are by no means Sannyásis, but serve to propagate the species. When a woman of the sacred cast has not a child so soon as she could wish, she purchases a young bull,

carries him to the temple, where some ceremonies are performed; CHAPTER and ever afterwards he is allowed to range about at pleasure, and becomes one of these village gods. The Bráhmans, however, ab-Oct. 6. stain from the absurd worship of these animals, although they are considered as possessed of a Brúhman's soul. On the north side of the Cavery this superstition is not prevalent. The bull is there considered as merely respectable, on account of Iswara's having chosen one of them for his steed, and as the animal is occupied by the soul of a Bráhman in a state of purgation.

Major Macleod, the collector, has just now sent up people with Palmira tree. the seed of the Palmira tree, or Borassus flabelliformis, in order to instruct those here in the manner of cultivating that palm. They are forming a plantation on good land, a quarter of a coss in length, and 200 yards wide. The people here were formerly supplied with palm-wine from the wild date; but by the orders of the Sultan these were all cut; for the rigidity of this prince's morals would Rigidity of not allow him to permit, in his territory, the growth of an intoxi- tan. cating substance.

7th October.—Following the same valley in which Singanaluru is Oct. 7. situated, I went two cosses to Hanuru. The soil is rather poor, and in some places stony; but, owing to a want of cultivators, a state of pogreat deal of good land is waste. Hanuru is an open straggling village, which contains between seventy and eighty houses. For the accommodation of travellers, a Choultry, or inn, has lately been erected. Before the invasion of Lord Cornwallis it contained five hundred houses; but, having been then plundered, most of the inhabitants were dispersed, or died of hunger. One coss and a half east from Hanuru is Hagi-pura, which in the government of the former Rájas was a fort that contained six hundred houses. Its works were allowed by Hyder to fall into decay, and it now contains only four or five houses. The Shanaboga, or accomptant of this

village, estimates, that in the Coleagala district there is only

pulation.

VIII. Oct. 7.

CHAPTER one-fourth of the people that would be necessary to cultivate all the arable lands. The reservoir here has long been filled with mnd.

Passage of the Cavery down the Ghats.

Hanuru is estimated to be five cosses from Bud-hully, the nearest place on the Cavery. Below Sivana Samudra the immediate banks of the river are so steep and high, that there is no road near it, and very little cultivation: but villages are every where scattered in the vallies that lie among the hills, which are included in its great bend, as it descends the Ghats. A road passes from Hanuru to Kanya-karna-hully, vulgo Cancan-hully, and crosses the Cavery at a ford called Baswana Kydda, which is about half a coss below the place where the Ráma-giri river enters. In other places the Cavery tumbles over rocks and precipices, which, although not of great height, render the channel so uneven, that it is impassable.

Forest of Hediny Betta.

The principal hill between the Cavery and the southern extremity of the eastern Ghats is called Hediny Betta; and on this chiefly grow the timber trees that are to be procured. It produces chiefly Tayka, Biriday, Whonay, and Jala, which have all been before mentioned. The sandal wood grows on a hill called Mahadevéswara.

Tati-holay river.

On the east side of *Hanuru* is a small river of clear water, which some years, even in the hot weather, does not become dry. called Tati-holay, and falls into the Cavery two cosses below Baswana Kydda. On the banks of this, two cosses below Hanuru, is Rudra-pura, formerly a large place. It had rice and sugar grounds watered by a dam and canal, from the Tati-holay; but now the whole is in ruins. On this rivulet there are still four dams in repair; but the grounds which they supplied with water are entirely unoccupied. The rivulet is too inconsiderable to be depended on for a regular supply of water from its dams; so that the crops were uncertain: but this might be remedied by forming reservoirs to collect the water of its canals, and by sowing no more seed than the quantity collected would be able to mature.

In this mountainous district there are two rainy seasons. The CHAPTER first is in the month following the vernal equinox, and is called Mungaru. During this the Wull' Ellu, or Sesamum, is sown. The Oct 7. second lasts the two months before, and the two immediately following, the autumnal equinox. These rains bring to maturity the crops of Ragy, Shamay, Jola, Cambu, Udu, Hessaru, Huruli, and Carlay. Since the country has been under the management of Major Macleod, the solar year of the Tamuls has been introduced.

In this hilly tract are a number of people, of a rude tribe called Cotu-cade Soligas, or Soligaru, who use a kind of cultivation called the Cotucadu, which a good deal resembles that which in the eastern parts of Bengal is called Jumea. In the hot season the men cut the bushes that grow on any spot of land on the side or top of a mountain, where between the stones there is a tolerable soil. They burn the bushes when these have become dry, and leave to the women the remainder of the labour. When the rains commence, these with a small hoe dig up the ground to the depth of three inches. They then clear it of weeds, and next day sow it broad-cast with Ragy, here and there dropping in a seed of Avaray, Tovary, mustard, maize, or pumpkin. The seed is covered by another hoeing. A woman in one day can hoe ten cubits square, and on the next can sow it. The sowing season lasts about two months; so that the quantity sown in a year by every woman may be estimated at somewhat less than the sixth part of an acre. The custom however is, for all the people of one village to work one day at one family's ground, and the next day at another's in regular succession. The villages in general contain four or five families. The women perform also the whole harvest.

These people have also plantain gardens. To form one of these, Plantain garthey cut down the bushes, and form pits with a sharp stick. each of these they set a plantain-sucker, and ever afterwards keep down the grass and bushes, so as to prevent them from choking the

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CHAPTER garden. The plantains are very large and coarse, and are eaten partly when ripe, and partly when green. Every family of the Soligaru pays annually to government three Fanams, or about two shillings.

Customs of the Soligaru.

Such is the account given by themselves of their system of agriculture; I now proceed to detail, on the same authority, the customs of the Soligas.

The Soligas speak a bad, or old dialect of the Karnata language; but have features a good deal resembling those of the rude tribes of Chittagong, to whom in many respects they are inferior in knowledge. They have scarcely any clothing, and sleep round a fire, lying on a few plantain leaves, and covering themselves with others. They live chiefly on the summits of the mountains, where the tigers do not frequent; but where their naked bodies are exposed to a disagreeable cold. Their huts are most wretched, and consist of Bamboos with both ends stuck in the ground, so as to form an arch, which is covered with plantain leaves. I have already explained the nature of their agriculture. The men supply the farmers with timber and Bamboos; and they gather various esculent leaves, and wild Yams (Dioscoreas). They also collect honey, which they immediately eat. They possess no domestic animals, and have not the art of killing game. They would willingly eat meat, but cannot get it. They are ignorant of the art of distilling, or fermenting any grain or liquor, and refuse to drink any thing that will intoxicate. They have hereditary chiefs, who manage the business of the tribe with the officers of government; these settle all disputes among their clients, and give good advice to those who are not disposed to observe the rules of cast; but they never fine, whip, nor excommunicate any offender. Every man takes as many wives as he can persuade to live with him after they have arrived at the age of puberty. Widows are permitted to marry again. When a girl consents to marry, the man runs away with her to some

neighbouring village, and they live there until the honey-moon CHAPTER is over. They then return home, and give a feast to the people of their village. Among their women adultery is unknown. The sons Oct. 7remain in their father's house until they are married. They then build a hut for themselves, and each contributes a share toward the support of their aged parents. The dead are buried; and all the rags, ornaments, and implements of the deceased are placed in his grave. On this occasion the family, if they are able, give a feast. Once a year each family celebrates a feast in commemoration of their deceased parents. If this be omitted, the parent becomes a Déva, or devil of low degree, and torments the undutiful children until they perform the proper ceremonies. The Soligas pray to Vishnu, under the name of Ranga Swami; and on festivals they give some plantains to the priests at his temples. They are too poor to have either Guru, or Puróhita.

The Oct. 8.

8th October.—I went four computed cosses to Caud-hully. road is hilly, and on the whole descends considerably. There is Appearance scarcely any cultivation; and the soil of a great part of the valley try. is very poor: still there appears to be much now waste that possesses a good soil, and not a little that has formerly been cultivated. Even the fields immediately contiguous to Caud-hully are entirely waste. I passed many small torrents that convey the rain water into the Tati-holay. The two most considerable are the Ududaray, half a coss from Caud-hully; and the Caud-hully, close to the village of that name. From the former a caral gave a precarious supply of water to some rice grounds. Both might be easily employed to fill reservoirs. The water of the Caud-hully is excellent, and may be procured, even in the driest seasons, by digging a little depth in the sand of its channel.

In the last war General Floyd came here to meet a convoy Depredations coming up from Káverí-pura under Colonel Read, who was accom- of the Brinjapanied by a large body of Brinjáries, or dealers in grain, and a Nizam's

ries, and the

Oct. 8.

Caud-hully,

Trade between the countries above and below the Ghats.

CHAPTER numerous rabble belonging to the Nizam's army. The country through which such ruffians passed is of course entirely ruined. and not a house is to be seen between Hanuru and Caud-hully.

> This last place then contained two hundred houses. Of these ninety have been rebuilt, but not a single cultivator has returned. At present the inhabitants are traders, and their servants and dependents; for this is a principal thoroughfare between the country below and that above the Ghats. In the former Saliem, in the latter Gutalu near Mundium, and Seringupatum, are the principal marts. In going to Gutalu, the Cavery is crossed a little above Satteagala. Some merchants are settled here, who purchase investments below the Ghats, and carry them to Gutalu; where they again lay in goods that are in demand at Saliem. The goods that are sent from the upper country are turmeric, Betel-nut, black pepper, Cut, or terra japonica, Danya-seed, opium, Jagory, sugar, and Copra, or dried coco-nut-kernel. Those that are brought up the Ghats are cotton-cloths, tobacco, boiled butter, rice, salt, Palmira-Jagory, and castor-oil. The custom-master, under pretence of having sent the books to his superior at Coleagala, will give me no account of the quantity: indeed, as he farms the customs, his showing them could not reasonably be expected. It is said, that in Tippoo's government the trade was much greater than it is at present.

Carriage cattle.

The goods are all transported as back-loads on oxen or asses. A load for an ox weighs eight Maunds, or a little more than 194 lb. The hire for four computed Sultany cosses is one Fanam, or nearly  $7\frac{1}{2}d$ . In the Ghats, owing to the badness of the roads, the cosses are very short. Good cattle travel four cosses a day, and middling ones three cosses. A good ox costs eighty Fanams, or about 21. 9s. 11d. and must be fed with grain. The asses are only employed by persons of the lowest cast, who trade in grain and salt; yet, if any pains were taken with the breed, they would in this arid

country be cheaper means of carriage than oxen are. A good ass, CHAPTER that costs five Rupees (10s. 10d.), will daily travel three cosses, and carry forty Seers of grain, weighing about eighty-five pounds. His Oct. 8. keep is next to nothing.

Caud-hully is the first place of any note above the Ghats. Below Roads them, the two places nearest it are Alumbady and Kaveri-pura. through the Ghats. Each is estimated to be twelve cosses distant; but the roads are bad, especially that to Alumbady, which is therefore never frequented by merchants.

The people of Caud-hully and Hanuru either pretend to be, or Inhabitants. really are, the most stupid of any that I have ever seen, and the labouring class are most wretchedly poor.

9th October.—I went three computed Sultany cosses to Mat'- Oct. 9. hully, or Marat-hully. The natives here begin to compute distances computed by by hours, and call what we have come to-day six Urnalivulies, or time; Urnahours' journies. The hour, as is usual all over India, is the sixtieth hour's jourpart of a day, or 24 minutes. This mode of computing distances is ney. employed every where in the country of the Tamuls; and an hour's journey is by the Europeans of Madras called a Malabar-mile. I suppose it is the same with what Major Rennell calls a coss of the Carnatic: for coss is a word of Hindustan proper, and is not employed in the dialects of the south: but coss is a word now universally received among the English in India; for which reason I use it as a translation for the Hardary of Karnáta.

The road from Caud-hully to Mat'-hully is so surrounded by Road down mountains, that the traveller has no view of the country below the the Ghats. Ghats. Except in a few places that might be easily avoided, the road is not very steep; but it is very stony, as is the case with the country through which it passes.

In several parts the country has formerly been cultivated, and Country. much of the valley is capable of being rendered arable; but at present all near the road is quite waste. The natives say, that there

Oct. 9.

Brahméswara, a god.

CHAPTER are many small villages in the valley, both south and north from that part of it through which we came; but in the late war great numbers of the houses in them were ruined. Mat'-hully is totally deserted, except by the Pújári of its temple, which, he says, is dedicated to Brahmeswara, a brother of Siva. With this god my Brahman is not acquainted. A Chouliry, or inn, has been lately built for the accommodation of passengers, whose resort will soon, no doubt, bring back inhabitants.

> Two rivulets, that contain perennial streams, join at Mat'-hully; and, running down the valley, meet the Palar, which comes from the south. The united streams turn to the east, and join the Cavery below the Ghats. The western rivulet is the largest; it is named Bagali, and rises from the west side of Mahadeveswara hill. This hill is the only place in the Coleagala district that produces sandalwood, and has on it a very celebrated temple, from whence it derives its name, and which is distant from Mat'-hully four cosses. It is surrounded by villages and cultivation. The smaller and eastern rivulet, from a fort that stood near it, is named Cotay.

Depredations committed by the Brinjaries.

The farmers from the neighbouring villages, that came to sell provisions, were miserably poor. Most of their stock having been carried off in the late war, the greater number of the survivors have been obliged to go down to the country below the Ghats to work as servants. Many died of hunger, and still more from the diseases brought on by want. The chief plunderers were the rabble belonging to the Nizam, and the Brinjaries, who are most ferocious ruffians, that not only plunder, but wantonly murder, every defenceless person that comes in their way. My interpreter, who was in the party coming up with Colonel Read, confirms the truth of what the natives say. No exertions of our officers could prevent the Brinjaries from plundering, not only the enemy, but the villages belonging to the Company that were in the neighbourhood of their route. Colonel Read's humanity and justice are too well known in the eastern parts of Mysore, for a single person there to imagine that every CHAPTER possible exertion for their safety was not employed.

10th October.—I went three computed cosses to Nidy Cavil, which Oct. 10. in the Tamul language signifies the guard of the middle; this place sam. being in the middle of the Ghats, and situated at the boundary of Karnáta from the Chéra Désam, which includes what we call the province of Coimbetore, and the district of Saliem.

Soon after leaving Mat'-hully, I reached the Palar, which comes Palar river. from the south-west, and passes through a valley that is cultivated from its source downwards to Nelluru, which is four cosses from where we joined the river. From Nelluru to the bottom of the Ghats this valley is very narrow, and could scarcely admit of any cultivation. There are, however, some level spots that might be cultivated, and this would add greatly to the comfort of passengers. I am persuaded, that Palmira trees would thrive near the banks of the Palar the whole way; and their produce would find a ready sale. The channel of the Palar, so far as I have seen it to-day, has a very moderate declivity, and at present contains a good deal of water; but in many places it is fordable. For several days together, after heavy rains, it is frequently impassable, to the great distress of travellers. In the dry season there is no stream in its channel; but, by digging in the sand, good water may always be procured. The dry weather, however, is here of uncommon short duration; for the rains from the eastward commence as soon as those from the west have abated. I have now been out the whole of the rainy season above the Ghats, and to-day I met the violence of the monsoon coming from the eastern side of the peninsula.

The road passes by the side of the Palar, and frequently crosses Road down its channel. In the dry season, indeed, this is generally used by the Ghats. travellers. A good road, and one of easy declivity, might without much trouble be constructed. At present, nothing can be worse. The hills on both sides are steep, and covered with trees; but few of them are of a size fit for timber.

CHAPTER
VIII.
Oct. 10.
Strata of the eastern
Ghats.

The strata of the Ghats run north and south, and are vertical. They are so much intersected by fissures, as to be of little use for building. In one place I found large concretions of lime-stone, resembling those found at Maleswara Betta, which have the appearance of the petrified nests of white ants: but here the masses were infinitely too large to have derived their origin from such a source. The ore of iron, in form of black sand, is very plentiful; but in this neighbourhood none is smelted.



## CHAPTER IX.

FROM THE KAVERI-PURA GHAT TO COIMBETORE.

CTOBER 11th, 1800.—Nidy Cavil, at which I have now arrived, CHAPTER is situated on the frontier between Karnáta and Chéra Désams, two of the ancient divisions in Hindu geography. It was formerly Oct. 11. a small fort, and was occupied by a few Sepoys; but the fort is now in ruins, and the guard has been withdrawn. A commodious Accommodabuilding for the convenience of passengers had long ago been tion for travellers. erected by Guttimodaly, a person who seems to have had great iufluence in Chéra. This has lately been repaired, and placed under the care of a Bráhman, who receives from government four Rupees a month, and has seven cows allowed him to serve gratuitously all travellers with milk. This is perfectly according to Indian custom; but by no means answers the purpose of procuring milk for the passengers. The Bráhman, having no object to attain by attention to the cattle, is contented with drawing from them as much as will serve himself; and of this he will spare a little to any rich traveller. from whom, of course, he expects a present of five times its value. A shopkeeper has also been established here, with a monthly salary of two Rupees. He ought to keep a supply of provisions for all travellers who choose to purchase them; but he complains, that he has very few customers, every one bringing with him a supply of necessaries.

The Bráhman and shopkeeper say, that every day, on an average, Trade. about twenty oxen loaded with goods pass this way. During the government of Hyder, ten times that number usually passed. A company of the traders called Lumbadies, that employed 12,000 cattle, Vol. II.

Вь

Oct. 11.

Road down the Ghats.

CHAPTER obtained from the Sultan a monopoly in every article of commerce, except cloth, tobacco, and boiled butter, which continued open. These Lumbadies dealt chiefly in grain, large quantities of which they brought from the low country for the supply of Seringapatam.

> To-day I went three computed cosses to Chica Cavil, at the bottom of the Ghats. The road is by no means steep; but the day's journey was laborious, as we were obliged to cross the Palar four times, and it was exceedingly swollen by the heavy rains. The road, I believe, might readily be conducted, the whole way, on one side of the river; but, as the stream for a great part of the year is inconsiderable, travellers have been in the habit of crossing it on the slightest difficulty; and thus the path has been formed in a manner very inconvenient for those who are compelled to pass it after heavy rain.

Appearance of the country.

The hills on both sides of the river are steep, but afford abundance of pasture for cattle, and in a few places leave level spots, that might be made comfortable abodes for the managers of flocks, or for the cultivators of Palmira trees. From the hills on either side, several small clear streams run into the Palar. Chica Cavil, or the Small guard, is a house built for the accommodation of passengers, on a rising ground above the Palar, where it enters the valley watered by the Cavery, as that river comes south from Alumbady. From the rising ground, those who delight in rude scenes of nature may enjoy a most beautiful prospect. The valley watered by the Cavery is here very rough, and contains few people and little cultivation.

Polygars of Alumbady.

The inhabitants of this neighbourhood are a strange mixture of those who speak the languages of Karnáta and of Telingana. These last have probably been introduced by the Polygars of Alumbady, named Araluppa Naïdus, and who were of the Bui cast, who among the Telingas are the bearers of palanquins. They were troublesome ruffians, who possessed the rough country on both sides of the Cavery, as it descends the Ghats; until the last of them suffered

himself to be deluded by the fair promises of Trimulaia, a Bráhman, CHAPTER who in the government of Hyder was Amildar of Káverí-pura. The Bráhman, after several visits, and many professions of friendship, at last induced the Polygar to make him a visit with few armed attendants. Immediately on his having got the Polygar in his power, regardless of the ties of hospitality, the Amildar hanged the ruffian; who met with a merited fate, had it been inflicted by honourable means. Such policy, however, is not unusual among the natives of Asia.

Oct. 11.

The chief of a neighbouring village, who supplied me with pro- Querulousvisions, was exceedingly disposed to complain. He first told me, the natives. that, since the Company had acquired the government of the country, his rent had been raised from 6 to 11 Pagodas a year; but, as I knew that the rent was fixed on the fields, I soon brought him to confess, that he now occupied much more land than he did under Tippoo's government. He then complained, that now he could not cheat the government: in former times, by means of a small bribe, he could get excused from paying a large share of his rent.

These rents are all paid in money, the whole cultivation in this Tenures and valley being that of dry grains. They are fixed on each field by a valuation made in the reign of the Sultán, which is very unequal; but people have lately been employed to measure all the arable lands, with a view of making a more just assessment. The Gauda, or chief of the village, prefers paying his present rent to an equal division of the crop; and says, that he would be contented to give government one third of the produce. Owing to the dilapidations to which such a mode of paying rent must be subject, it is evident, that the public, by what is called an equal division of the crops, would not in reality get one third of the produce: the present rent, therefore, is probably not excessive.

The Gauda complains also, and I believe with reason, of the great Poverty of poverty to which the people are reduced by the plundering of the the cultiva-Lumbadies, who in the last war supplied the army with grain. He

Oct. 11.

Tacary, or money advanced to assist poor cultivators.

CHAPTER acknowledges that the collector offered to advance money to enable the farmers to carry on cultivation, and that none was accepted.

> The reason he assigns for this is, that the money advanced, or Tacavy, was to have been repaid immediately after cutting down the crop: the farmers would therefore have been under the necessity of selling at once the whole of their grain; and thus, by glutting the market, they would have been great sufferers. A great many of them, who have now been forced to work as labourers, would have thankfully received Tacary, to be repaid, by instalments, in the course of two or three years. It must, however, be evident, that such advances are extremely inconvenient to any government, and perhaps could not be made without doing injustice to those who paid the taxes necessary to raise the money advanced. Nor are such advances in general attended with any national advantage; they do not enable the people to cultivate one acre more, and are an assistance only to some individuals, who, if they did not receive advances to enable them to cultivate their own fields, must hire themselves out to work on the fields of those who have stock. They are, however, a favourite maxim of Indian policy; partly as having a popular appearance of liberality, and partly as opening a great field for corrupt partialities.

Sandal-wood.

The hill producing sandal-wood is three cosses distant from Chica-Cavil. It is here called Punashy conda, which is its proper name; that by which it is commonly called above the Ghats is derived from Mahá-dévéswara, a temple built on it. The Mussulman who is employed to cut the sandal is said by the querulous Gauda to use the neighbouring people very ill, and to give them no pay. It appears to me, however, that the Gauda is not a man likely to suffer any injustice without complaining, and he does not say that he has ever in vain applied for redress.

In the Ghats above this place the most common strata are gneiss, Strata of the eastern Ghats. and a quartz strongly impregnated with iron. Both are vertical, and run north and south. They are much intersected by veins and CHAPTER fissures; so that no large blocks could be procured. The most remarkable mineral phenomenon here is the lime-stone, or Tufa cal- Oct. 11. caria. In its nature it entirely resembles the Congcar of Hindustan proper. Some of it is whitish, and some of an earthy brown. It is found in very large masses, many feet in length, and often six or eight in thickness. It appears to me to have been once in a state of fluidity resembling thin mortar, and to have flowed irregularly over many large spaces of these Ghats; after which it has hardened into its present form. Where it flowed through earthy or vegetable matters, it filled up the interstices between their parts; and afterwards, having been freed from them by their gradual decay, and the action of the rains, masses of it are now exposed to the air perforated in all directions, like that which I found at Malaiswara Betta. In other places, this liquid has flowed among the decaying masses of rock and gravel. It has filled up all the veins and rents of the former, and united them again into a solid mass. With the gravel, it has formed a substance entirely resembling the mortar made of quick-lime and that matter, but of a very great hardness. This rock is therefore evidently of a much later formation than the strata of the mountains; having been formed after they began to decay, and even after the formation of mould and vegetables.

12th October.—I went five computed Malabar hours' journey, Oct. 12. which, I suppose, Major Rennell would call five cosses of the Car- Appearance of the counnatic, and came to Kaveri-pura. The country in general is level, trybut very stony, and full of rocks even with the surface. About forty or fifty years ago it is said to have been wholly cultivated, so far as the rocks would permit; and the soil is a red clay and sand, very productive of dry grains. Ever since, from the unsettled state of the country, the cultivation has been gradually on the decline; and now the country is entirely waste and uninhabited, except in the immediate neighbourhood of Káveri-pura, where a little wretched cultivation is visible. The fences here are commonly.

Oct. 12.

CHAPTER built of loose stones, in a manner similar to the sheep-dykes of Galloway, which keep out cattle remarkably well. Those near Káverípura are badly constructed, and, as usual with Hindu fences, are kept in bad repair.

Ghats.

The mountains, viewed from the brinks of the Cavery here, do not appear to be higher above the level of the country than they did from Satteagala above the Ghats. This is probably owing to their eastern ridges being lower than those to the westward, but yet sufficiently high to conceal the others from the view. The Cavery here is at present a wide and strong, but smooth stream, which is no where fordable; but in the dry season it has fords every where.

Káce í-pura.

The fort of Káverí-pura is said to have been built by Guttimodaly, who was *Polygar* of much of the neighbouring country; and who also, in order to protect his territories from the Polygars of the hills, built Nidy-Cavil, and Chica-Cavil. The suburb is at some distance from the fort, and contains about a hundred houses, with the ruins of a much greater number. It is said, however, that the place was never larger, nor more populous, than at present; and that the ruins are houses, which were built by a Hussein Saheb, who wished to have enlarged the town, but never could induce inhabitants to occupy his buildings. The place did not suffer from the Lumbadies under Colonel Read, as he could spare a guard to repress their barbarity; but they are said to have plundered many villages on the opposite side of the river, which then belonged to the Company, and was under his government. The greater part of the populace inhabiting Káverí-pura speak the Tamul language. Most of the Bráhmans speak the language of Karnúta, or the Canarese as we call They seem to be still more brutally ignorant than the people of Mysore south from the Cavery; and I soon found the only two officers of the place, the chief, and the accomptant, to be inveterate liars.

Imgation.

The fort is separated from the suburb by a rivulet named Swayamvará-pallum, which formerly filled a large tank, named Swayamcará Erry, which is situated 2 cosses, or about 5 miles, south-west from CHAPTER Káverí-pura. It supplied with water as much ground as sowed 16,000 Seers of rice, or probably about 520 acres; but unfortu- Oct. 12. nately it burst down more than fifty years ago, and has never since been repaired. The Sultán ordered an estimate to be made of the expense necessary for the purpose; but finding it to amount to 18,000 Pagodas, or about 6000 l., he desisted.

This is a considerable thorough-fare between Dalawai petta, Co- Trade. mara pallium, Pallaputti, Nerinja-petta, Ama-petta, Erodu, Tuduputti, Sitodu, Aravacurchy, Nangapulli, Womaluru, Saliem, Rashepuram, Namaculla, Sadamangalam, and Dindigul on the one hand; and on the other Gutalu, Naggara, Seringapatam, Gubi, Cohagala, Coud-A custom-house has accordingly been hully, and Band-hully. erected; but as the duties are farmed, I could not expect the officers to give me a fair account of the exports. In the course of the last two months, they say, there has passed nearly,

				Loaded oxen.		
Of cloth -	•	-		•	50	
Of tobacco	-	_	-		300	
Of Ghee, or boiled 1	butter,		-	-	70	
Of castor oil	-	-	-		10	
Of poppy seed	-	-		-	5	
Of Goni, or hemp	-		-	_	5	
Of Palmira Jagory	-		<b>-</b>	-	50	
Of potstone vessels	-		•	•••	5	

495; or about

eight loaded oxen daily. I have met between forty and fifty loaded cattle every day, since I left Co. a. Ily, but such a great number may have been accidental. By the account of the people at Niay-Cavil, about 20 cattle passed that place daily; and one half of these being taken, as those going all agree tolerably well with the account which the officers at Laveri-pura gave. The

Oct. 13.

CHAPTER trade in Tippoo's reign was, it is said, much more considerable; but then it consisted chiefly in grain, which the reduced population in Seringapatam renders no longer necessary.

Houses of the natives.

13th October.—I went ten Malabar hours' journey to Navaputty; that is, the nine villages, having formerly been the principal of nine adjacent hamlets. It is a sorry place, containing about twenty houses. The huts of the country, called Chera, are like bee-hives; and consist of a circular mud wall about three feet high, which is covered with a long conical roof of thatch. Contrary to what might have been expected in a hot climate, but agreeable to the custom of almost all Hindus, one small door is the only out-let for smoke, and the only inlet for air and light. Each family has a hut for sleeping, another for cooking, and a third for a storehouse. Wealthy men add more buts to their premises, but seldom attempt at any innovation in the architecture of the country.

Appearance of the country.

To some distance from Kaveri-pura the plain continues, but it is extremely rocky and poor. Afterwards there are many high mountains, reaching from the Ghats to the Cavery. These do not form a continued ridge, but are separated into detached hills by vallies, through which the traveller passes from Káveri-pura to the level country that is watered by the Bhawani. These vallies are less rugged, and contain a better soil, than the country near Káverípura; but in both, owing to a scarcity of cultivators, there is much arable land unoccupied. The people say, that the oppression of Tippoo, and of his officers, drove many of the cultivators to forsake their homes, and retire to the country, under the just and humane government of Colonel Read. Last year a great number of their cattle perished, owing to the epidemic distemper.

Irrigation by means of the river Tumbula.

On the north side of the range of hills is a fine little river, named the Tumbula, or Colatur, from its having passed through a large reservoir named Colatur Eray. Between this, and where the river joins the Cavery, had been formed four reservoirs; and nearer the source Vencata Ráya had formed a fifth, called after his own name. About

50 years ago this gave way after a heavy rain, and the torrent broke CHAPTER down the mounds of all the reservoirs in the lower part of the rivulet. They have never since been repaired, although the quantity Oct. 13. of ground which they watered is said to have been very considerable. A Bráhman has this year made a small dam on the Tumbula, and the cultivation of rice has again commenced.

Near this rivulet is a small town named Shamli, with a fort en- Guttimodal, tirely in ruins. It was built by Guttimodaly, who lived at a place Womaluru. called Womaluru, distant 16 Malabar hours' journey toward the east, and which is probably the Wombinellore of Major Rennell. About a hundred years ago this prince's territory was conquered by the Mysore family, after an obstinate resistance. Shamli fort was at that time destroyed, and has never since been repaired.

or Tar of Bengal, and the Panna Maram of the Tamuls. In many parts of India it grows almost spontaneously, but here it is reared with some care. It thrives best in a strong black clay, next on the red soil commonly used for Ragy, and it will also grow on the poor sandy soil called here Manul; but its produce is then very small. When a new plantation is to be made, the ground in Adi (13th July to 13th August) is ploughed twice. The fruit for seed is gathered in the beginning of this month, and kept in a heap until the end; when the field is ploughed a third time, and the seeds, having been separated, are put into the ground at the mutual distance of three cubits. They are placed in the bottom of a furrow after the plough, and are covered by the next. For 9 or 10 years the young palms are secured from cattle by a fence, and require no farther care. At this age they are about six feet high; and, as cattle cannot then

In this country the cultivation of Palmira gardens is pretty ex- Palmira tensive. This tree is the Borassus flabelliformis of Linnæus, the Tál gardens.

injure them, the fences are removed, and the garden is used for pasture. When the trees have been planted in a good soil, they begin in 30 years to produce Callu, or Palmira-wine; but in a poor soil 40 years are required. When they have arrived at maturity, the

Oct. 13,

CHAPTER ground between the trees is cultivated every year for grain; but this, although it increases the quantity of Palmira-juice, yields not more than one half of what the field would do, were it not planted. This palm is supposed to live a thousand years; that is, it lives longer than can be ascertained by tradition. No care is taken to plant young trees in place of the old ones that have been destroyed by accident, or by old age; but young ones spring up in the empty spaces from the fruit that drops from maturity. I observe, however, that in most of the plantations the trees are at great distances; and it is said, that many of the young ones are cut down for their cabbage, or central young shoot; while the bears and wild hogs cat most of the fruit that falls.

Palmirawine.

This palm produces juice five months in the year, from about the 11th of January until the 11th of June. The stem must be cleared from all the roots of the branches, which is attended with a good deal of trouble; and the workman mounts by means of a strap passed round his back, and a rope round his two feet. An active man can manage forty trees, but an awkward fellow will only manage fifteen. They are all of the cast called Shanan, or in the plural Shanar. Before the bursting of the membrane which covers the flowering branch, and which botanists call the spatha, the workman bruises it between two sticks for three successive mornings. On each of the four following mornings he cuts from its tip a thin slice. These operations prevent the spatha from bursting; and on the 8th morning a clear sweet liquor begins to flow from the wound. A pot must then be suspended, so as to collect the liquor, as it drops from the spatha. A good tree will give daily about three ale quarts of juice, a bad one about a sixth of that quantity. If the juice is to be boiled into Jagory, a little quick-lime must be put into the bottom of the pot in which it is collected; in order, I suppose, to absorb any acidity, and thus to prevent fermentation This is not done when the juice is intended for drinking, as then the stronger it ferments so much the better wine will be produced

In order to make Jagory, the juice of the Palmira tree is boiled CHAPTER down on the same day that it is collected. Four pots being placed with a fire under their common center, about three quarts of the Oct. 13. juice is put into each, although they could contain four times that gory. quantity; for, in boiling, this liquor is apt to overflow. The violence of ebullition is allayed by throwing in some bruised seed of the Ricinus, and by stirring about the juice with a branch of the Sunda, or Solunum pubescens Willd: When the juice has been boiled for two hours, a small quantity is taken out and tried. If it has been sufficiently boiled, it will form into a ball between the fingers; but, if it will not cohere, the evaporation must be continued. When ready, it is formed into a mass, or ball, by pouring it into a hole in the ground, or in a piece of timber. Every three quarts of liquor should give one Seer and a half, or a little less than one pound. This Jagory is used both for eating and distilling, and a great part of it is exported to the Mysore country. It sells at the rate of 32 Tucus for 7 Rupees, or for about 5s. 3d. for the hundred-weight.

The Shanar, or collectors of palm-wine, cultivate the ground Rent of palm among the trees, paying half rent for it; and every man takes as gardens. many trees as he can manage. For these he pays annually six Rupees; but this not by an actual poll tax. In the accompts of the villages, a certain number of trees are supposed to be in each; a certain number of Shanar is supposed to be able to manage these; and for this number the tax is paid. Although from nine to twelve men may be actually employed in a village which is rated as having three Shanars, the government receives only eighteen Rupees. It may in general, indeed, be observed respecting Hindu accompts, that, with a vast appearance of detail, they are extremely erroneous; for the minuteness is not intended to elucidate the state of revenue; but to enable the inferior officers to confuse matters, and thus to peculate without detection.

It is estimated, that a plantation of Palmira, including land rent in forming and Shanar capitation, pays two and a half times as much, as the Palmira gar-

Oct. 13.

CHAPTER same ground cultivated for dry grains would do; but, in order to procure this, a total sacrifice of between 30 and 40 years rent must be made. Old gardens ought therefore to be most carefully supported; and the cultivators should be bound to plant young trees in the empty spaces; for a new garden can never be formed with advantage at such an expense, unless there be much more land in the country than the existing stock can cultivate. This being the case at present, it is very judicious in Major Macleod to make plantations now, as the land that he employs would at any rate pay no rent.

Oct. 11. A<sub>I</sub> pearance of the country.

14th October.—Having been deceived about the distance, concerning which it is very difficult to get accurate information, I went a very short way to Nerinja-petta, which was said to be five Malabar hours' journey. I passed through a narrow plain, bounded on my left by the Cavery, and on my right by high hills. of this plain, in some places, is covered with rock, and sand intermixed with calcarious Tufa; but much of it is good, although, from a want of inhabitants, very little is cultivated. There is no rice land.

Nerirjapetta.

Nerinja-petta is a poor open town, said to contain about two hundred families. The inhabitants of three hundred houses are said to have retired from it to the country under Colonel Read's management, in consequence of the contributions levied by Jemál Khán, to enable the Sultán to pay the sum which was exacted from him by Lord Cornwallis. Previous to that emigration, the place contained many traders and cotton weavers. These were of three kinds; Muca Chambadavar, Shaliar, and Coicular. The first have entirely deserted the place; and of the two last only eight houses remain. The Shaliar are a tribe of Telinga origin, and are the same with those who above the Ghats are called Padma Shalay.

Catery river.

The Cavery here begins to rise about the 26th of May. It is at the highest from the 13th of July until the 13th of August, before the rainy season commences. As this advances, it decreases in size,

but does not become fordable until after the 11th of January. Nerinja-petta a dam was built across the Cavery by Cada Ráya, one of the family of Chica Déva Rája of Mysore. It formerly sent a Oct. 14. canal to each side of the river; that on the left ran five Malabar hours' journey; that on the right ran three hours' journey, watering the fields all the way between it and the river; both have been entirely ruinous from the breaking down of the dam, which happened at a period beyond the memory of the oldest inhabitant.

At CHAPTER

sixteen villages of Malayála, or hill people, who on the summit of their mountain cultivate all the dry grains of Mysore, and have the only Mango (Mangifera) and Jack (Artocarpus integrifolia) trees that are to be found in this neighbourhood. These villages are said each to contain from five to sixteen houses; but are so difficult of access, that I could not visit them without a day's halt. Several similar hills are scattered through Major Macleod's district on both sides of the Cavery. The inhabitants of the plains cannot live on these mountains; nor can the highlanders live on the plains, without the greatest danger to their health. They are a distinct cast from the people of the plains; but quite different from the people of Malayálam, or what we call the province of Malabar, although both people are known by the same name, from their both inhabit-

On Palla hill, which extends from Shamli to Nerinja-petta, are People called

ing hilly countries. In the hills here are many black bears. These are harmless ani- Bears. mals, living chiefly on white ants, wild fruit, and that of the Palmira tree. The only injury that they do is to the crops of Sholum (Holcus sorghum). If a man disturb or surprise a bear, he is liable to be killed by the animal, but not to be eaten. It is unsafe, therefore, to approach these animals, especially advancing straight before them; for, the bear's eyes being turned backwards, he does not see the person advancing towards him until he is alarmed by the man's near approach, and then attacks the sudden intruder. The bear is very strong, and is not afraid of the tiger. It lives in caves, and holes

Oct. 14.

CHAPTER under large stones. Such is the account of the natives; for in the south of India I have not seen the animal, although there can be no doubt that it is the Bradypus ursinus of naturalists, which is a real bear.

Cotu-cadu cultivation.

The Cotu-cadu cultivation is carried on by the poor farmers of this neighbourhood, when they have not stock sufficient to enable them to plough the arable fields. Having assembled some of these, they told me, that the soil fit for their purpose is to be found both on the southern face of the great mountains, and on the smaller hills between these and the Cavery. It is known by its producing an abundance of trees, and is in general extremely steep, being always situated on the declivities of the hills. It is not reckoned worse for containing many large stones, and projecting rocks; as by these the soil is kept cool and moist. When a spot fit for the purpose has been determined, the trees are cut down in the first three months of the solar year, commencing on the 11th of April. Toward the middle of July they are burned; and from about the 28th of that month the seed is sown, and then covered by digging the ground with a small hoe. The seeds are Collu (Dolichos biflorus), Tenay (Panicum italicum), and Cambu (Holcus spicatus). These are all sown separately; but with each of them is intermixed a small quantity of cotton seed. The season for sowing the Tenay and Cambu continues until about the 13th of September; then commences the season for sowing the Collu, or Horse-gram, and it lasts for a month: after twenty or twenty-five days the crops are weeded. The Tenay and Cambu ripen in three months; but five are required to bring the Horse-gram to maturity. Next year the cotton produces, and the different grains are then sown, and hoed in between the cotton plants. In the third year a new spot must be cleared; and the former requires ten years for the trees to grow up again, the ashes of these being a necessary manure. This ground, when it has been cleared, is measured, and the rent is one-fourth of what would be paid in the plains for a similar extent of dry-field. Major Macleod

discourages this kind of cultivation, as it takes away useful hands CHAPTER from the plough. A man can cut down and burn the trees growing on one culy of land, or rather less than one acre. When he sows, in Oct. 14. order to do the whole quickly, he hires as many labourers as he can; but he is again hired to sow the field of his neighbour. On this extent of land, besides one puddy of cotton-seed, may be sown five puddies of Horse-gram, and eight puddies of Cambu, or Tenay. In the first year it will produce two hundred and forty puddies of Horsegram, and two hundred and sixty of Cambu, or Tenay. The second year's crop will be about one hundred and sixty puddies of Horsegram, and one hundred and seventy-two of Cambu or Tenay, with four tucus of cotton-wool. One acre at this rate will in the first year produce about six bushels of Horse-gram, and six and a half of Cambu, or Tenay; in the second year four bushels of Horse-gram, a little more than four of Cambu, or Tenay, and about thirty-two pounds of cotton-wool.

15th October.—I went ten Malabar hours' journey to Bhawání- Oct. 15. kudal, called in our maps Boviny Coral. The country on the right Appearance of the counof the Cavery is free from hills, except one conical mountain, which try. rises from the bank of the river near Bhawani. The soil in general is stony, or sandy; but in some places the stones are mixed with a strong red clay. At one reservoir, the people have recommenced the cultivation of rice, and have cleared about three acres for the purpose; all the other cultivation that I saw was that of dry-field. A very small proportion of the country is, however, cultivated. The Cambu (Holcus spicatus), which is here the prevailing crop, looks much better than it did above the Ghats. At Ama-petta, a town containing about forty houses, and full of inhabitants, not a single spot of ground was cultivated; the people being all merchants and weavers I crossed two rivulets, the Sitaru and Punachi. Irrigation. The former supplied a large reservoir with water; but this was broken down by the flood that has destroyed so many others in the neighbourhood, and has never been repaired. The ground that it

IX. Oct. 15.

Strata.

CHAPTER watered has been planted with Palmira trees, which are a poor substitute for rice. The Punachi fills a reservoir, from which some rice-grounds now receive a supply of water.

> The strata run north and south, and are much intermixed with calcarious matter, that has diffused itself among them while it was in a fluid state. It is chiefly found near rivulets and torrents. On the banks of the Sitaru I observed it under an extensive stratum of white quartz; but I do not think it can be from thence inferred, that the quartz is of so recent a formation as the calcarious tufa. It may have been undermined by the rivulet, and the calcarious matter afterwards deposited under it, so as to fill up the empty space.

Bhawinikudal.

Guttimodaly Polygar, and the Rija of Madura.

Bhawani-kudal is an old ruinous fort at the junction of the Bhawání with the Cavery. It contains two very celebrated temples; the one dedicated to Vishnu, and the other to Siva; and was built by a Polygar named Guttimodaly, who held all the neighbouring countries as a feudatory under the Rájas of Madura, whose dominions, including Saliem, Tritchenopoly, and all the country south of Sholia, or Tanjore, were called by the general title Angaraça, and comprehended the two countries called Chéra and Pándava. At one of the temples there is an inscription on stone, giving an account of its foundation; but as the hour, day, month, and year of the cycle are only mentioned, it is impossible to ascertain the date of its erection; and on this subject the most learned Brúhmans here profess ignorance; nor can they give any information concerning the time when the country became subject to Mysore. knowledge of the history of the country, they say, ceases with the overthrow of Rávana king of the Racshasa, to whom it belonged, by Ráma the king of Ayudya, which happened exactly 879,901 years ago. The only information that they can give concerning Guttimodaly, except the miraculous actions performed in erecting the temple, is, that he was contemporary with Dalawai Ráma Peya, prime minister to the Rája of Tritchenopoly, who was also a feudatory of the Rája

of Madura. Both families intermarried with the old Sholia Rajas, or princes of Tanjore. It is probable, that all these families rose into great distinction after the overthrow of the kings of Vijaya-nagara; Oct. 15. for the Bráhmans here are so little informed in history, as to think that the present Marattah dynasty has been in possession of Tanjore for an immense time.

CHAPTER IX.

The suburb of Bhawani-kudal is a very poor place; but, as it has Town of Bhabecome the head Cutchery, or office of all the district under the management of Major Macleod, it will increase very rapidly; as the situation is very fine, and a plan for building it regularly and handsomely has been laid down by that gentleman. Money has also been advanced to assist new settlers to build good houses, and it is to be repaid by moderate instalments. Many new houses are building, which promise to be better than any that I have yet seen in the course of my investigation.

The strata at Bhawání, although of the same nature with those Strata. near the Ghats, run about north-west and south-east, with a great dip towards the north.

16th and 17th October.—I remained at Bhawani-kudal, taking an Inhospitable account of the state of the country, and endeavouring to repair my disposition of the Hindus. tents, which, from having been long exposed to rain, had become very crazy; but I met with a severe loss in not finding Major Maclead at home. My information was much less complete than it would have been had I received his assistance; and the poverty of the place, joined to the obstinate and inhospitable disposition of its inhabitants, prevented my equipage from getting the repairs, and my servants and cattle from obtaining the refreshments, of which they were so much in need. Although very high prices were paid for every thing, no article could be procured, without long continued threats of instantly forwarding, to the collector, a complaint of the neglect which the native officers showed in obeying the orders of the government of Madras. I purchased the very articles sent from hence to Seringapatam cheaper there, than we were

CHAPTER obliged to pay for them on the spot where they grew. I mention these difficulties, which are very frequently met with by travellers Oct. 16, 17. in all parts of India where Europeans have not resided long, to show the inhospitable nature of its inhabitants. From the strict attention which I paid in redressing every injury done by my followers to any person whatever, I am confident that no attempt was made to take any thing without full payment.

Feeble constitution of the natives.

The health of my people is now beginning to suffer from the constant change of air and water, which the natives of India do not support so well as Europeans.

Tamul Calendar.

The Lokika, or vulgar men of the world, throughout the countries in which the Tamul language is spoken, use a solar year called Surya-manam in the Sanskrit. The almanac here came from Tanjore, the great seat of learning in the southern part of India. The current year is as follows. It is reckoned the year 1722 of Sáliváhanam and the 4901 of the Kali-yugam. This, it must be observed, differs one year in the former era, and seven in the latter, from the reckoning in Karnáta.

Tanul Months.	European Months.	Tamul Months.	European Months.		
10 11 12 13 14 11 14 11	14 15 16 17 18 19	21   22   23   24   25   26   27   28   29   30   31   Vyashi   1   2   3   4   5   6	3 4 5 6 7 8 9 10 11 12 13 14 15 16		

Tamul Months.	European Months.	Tamul Months.	European Months.	CHAPTER IX.
9 10 11 12 13	19 May 1800. 20 21 22 23 24 25	[30	8   9   10   11   12	Oct. 16, 17.
15 16 17 18	26 27 28 29 30 31 1 June.	2 3 4 5 6 7 8	14 15 16 17 18 19 20	
23 24 25 26 27 28 29	3 4 5 6 7 8 9	10 11 12 13 14 15	21 22 23 24 25 26 27	
Ani 30 31 1 2 3 4 5	11 12 13 14 15	17 18 19 20 21 22 23	29  30  31  1  2  3  4	
7 8 9 10 11 12 13	18 19 20 21 22 23 24 25	24 25 26 27 28 29 30 31 32	6 7 8 9 10 11 12 13	
16 17 18	28 29 30 1 July. 2 3	4 5 6 7 8 9	14 15 16 17 18 19 20 21 22 23 24	

# A JOURNEY FROM MADRAS THROUGH

CHAPTER					<del></del>		······································		
IX.	Tanul Months.			European Months,	Tamul h	Months.			European Months.
Oct. 16, 17.	Avony 1722 -	12 13		August 1800.	Peratashi	1722	30 31		October, 1800.
		14	27 28		Alpishi -	• -	1 2	15 16	
		16 17 18	30				3	17 18	
		19	1	September.			5 6 7	19 20 21	
		21 22	3. 4				8 9	22 23	
		23 24 25	5 6 7				10 11 12	24 25 26	
		26 27	8				13 14	27 28	
		28 29 30	11				15 16 17	29 30 31	
	Peratashi	31	13 14				18 19	1 2	November:
		3 4	16 17				20 21 22	4	
		5	18 19				23 24	6 7	
		7 8 9	20 21 22				25 26 27		
		10 11	23 24				28 29	11 12	
		12 13 14			Carticay			13 14 15	
		1.5	28				3	16	
		18 19	29. 30 1	October.			5 6 7		
		19 20 21	4				8 9	21 22 23	
		22 23 24	17				10 11 12	23. 24. 25	
		25 26 27	8				13	24 25 26 27 28 29 30	
		28	11				16 17	29 30	

Tamul Months.	Europ-	an Months.	Tamul Months.			European Months.	CHAPTER IX.
Carticay 1722 18	2	ember 1800.	Tey 1722	9	19 20	January 1801.	Oct. 16, 17.
20	4			11	21 22		
22	5 6			13	23		
24	7				25		
25   26	8 9				26		
27	10			17	27 28		
28  29			i.		129		
Margully 1	13			21	0 18		
2 3				22 23		February.	
4	16			24	3		
5 6	17 18			25 26			
7	19			27	6		
8	20 21			28 29			
10	22			30	9		
	23 24		Mashi	2	•		
13	25			3	12		
15	26 27			5			
16	28			6	15		
118	29 30			7 8			
19	31	ary 1801.		9	18		
20 21	2	ary 1001.		10			
22	3				21 22		
23 24	5				23		
25 26	6 7			15	24 25		
27	8			17	26		
28	9			18 19	27 28		
Tey 1	11			120	1	March.	
2 3	13			21 22	1 2 3		
4 5	14			23	4		
6	16			24 25	6		
8	18			26 27	7 8		
1 0	1201		4	121	1 9	1	

CH	APT IX.	ER
	7.7	_
Oct.	16,	17.

Tamul Mont	hs.	hs. European Months.			Tamul Months	Tamul Months.		
Mashi 1722 Panguny -	-	28 29 30	10 11	March 1801.	Panguny 1	16	26 27 28	March 1801.
i anguny -	-	2 3 4 5	12 13 14 15 16			Ly,	31 1	April.
		6 7 8 9	17 18 19 20			23 24 25 26	3 4 5	
		10 11 12 13	21 22 23 24			27 28 29 30	8 9	

Owing to a different manner of introducing the intercalary days, the beginning of the Surya-manam year varies from the ninth to the eleventh of April.

Weather.

The following is the account given by the most intelligent persons of the weather in the different seasons, or Ritus.

I. Chitri and Vyashi form Vasanta Ritu. The winds are moderate, and from the southward, except about twice in the season; when, for from ten to fifteen days, violent squalls come from the westward, accompanied with thunder and lightning, with pretty heavy showers, and sometimes with hail. Before the squalls the sky is red; at other times it is clear, with warm sunshine, and neither fogs nor dews At this season the trees flower.

II. Grishma Ritu contains Ani and Adi. Once in eight or ten days heavy showers come from the westward, accompanied by much wind and thunder, but no hail. There are fogs on the hills, but not in the open country. In the intervals between the rains the heat is moderate, with cloudy weather, and strong westerly winds.

III. Varshá Ritu contains Avony and Peratashi. At this season

heavy and incessant rains, for five or six days, come from the west- CHAPTER ward, with similar intervals of fair weather, and are attended with lightning, but no thunder, and very moderate winds.

Oct. 16, 17.

- IV. Sarat Ritu contains Alpishi and Carticay. In the former, heavy rains come, once in six or eight days, from the north-east. Each fall in general continues a whole day. There is very little wind, and the heats are by the natives reckoned moderate; that is, to an European they are not absolutely frying. In Carticay, there are usually only two or three days rain, which also comes from the eastward. The winds are moderate, and easterly. The air is cool. Toward the end of the month there are heavy dews.
- V. Hémanta Ritu contains Margully and Tey. About the middle of Margully there are showers for three or four hours in the day, with moderate winds from the south, and some thunder. At other times there are heavy dews, with a very cold air, and south-easterly winds of very moderate strength. The sky is sometimes clear, and at others cloudy.
- VI. Sayshu Ritu contains Mashi and Panguny. Towards the end of Panguny there are sometimes squalls from the westward, with thunder and rain; but the greater part of the season is clear and hot, with light breezes from the south, and moderate dews.

In the southern parts of the Coimbetore province, opposite to the breach in the mountains at Ani-malaya, the winds in the beginning of the south-west monsoon are excessively violent.

All the people here allege, that the rains are more regular and in greater quantity above the Ghats, than they are here. This however appears to me doubtful: although here, as well as above the Ghats, the westerly winds bring the strongest rains; yet here they enjoy a considerable portion of the rain from the other monsoon, which must prevent the country from ever being burnt up by a long drought.

Fevers and fluxes are epidemic from about the middle of October Diseases.

Oct. 16, 17. Weigl ts and measures.

CHAPTER until the tenth of January; and generally at the same time the IX., epidemic distemper prevails among the cattle.

Since this part of the country has been under the management of Major Macleod, that gentleman has endeavoured to introduce a regular standard of weights and measures, similar to those in the parts of his district that were formerly under Colonel Read. The shortness of the time has, however, hitherto prevented this salutary measure from being completely effected; and the weights and measures of almost every village differ from those of its neighbours.

Land Measure according to Regulation.

For rice-land. 24 Adies, or feet square=1 Culy square feet 576

100 Culies - - - =1 Chei - - 57,600

The Chei is therefore  $=1\frac{122}{1000}$  acre nearly.

For dry-field.  $6\frac{1}{2}$  feet - = 1 Mar 16 Mars - = 1 Chingali

4 Chingalis square—1 Bulla—173,050 square feet.

The Bulla is, therefore,  $3\frac{972}{1000}$  acres nearly.

The Chingali, or chain, belonging to the collector's office, I found to be actually 102 feet 8 inches long, and very rudely formed, some of the Mars being five or six inches longer than others; for in India such a piece of workmanship as a measuring chain is far beyond the skill of any native, who has not received long instruction from an European. On measuring a Bulla of land, I found it  $3\frac{s}{1000}$  acres. These differences are trifling, however, and of no consequence in such accounts of the country as can be procured by a traveller, who is constantly liable to errors of much greater magnitude. In this part of Major Macleod's district, the old computed Cheis, and Bullas, are still continued in the accompts of every village, and every where vary from one another.

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Weights, according to the new Regulation.
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CHAPTER IX.
Oct. 16, 17.

52 grains =1 Star-Fagoda.

520 grains, or 10 Star-Pagodas=1 Polam.

4160 grains, or 8 Polams - = 1 Cucha Seer = 0. 5947 lb.

20800 grains, or 5 Cucha Seers = 1 Visay.

166400 grains, or 8 Visays - =1 Munnagu  $= 23, \frac{7.6.5}{1.000}$  lb.

The Munnagu, by the English, is usually called Maund.

The old weights, however, are in general use, and are as follow:

177 grains = 1 Dudu.

1416 grains, or 8 Dudus = 1 Polam.

4248 grains, or 3 Polams=1 Seer=00, 5067 lb.

21240 grains, or 5 Seers =1 Visay.

141600 grains, or 100 *Polams*=1 *Tola*=20,  $\frac{2226}{1000}$  lb.

By this are sold *Betel-nut*, black-pepper, *Jagory*, tamarinds, *Siragum*, or cummin-seed, *Mendium*, or fenugreek, mustard, sugar, spices, cotton-thread, raw-silk, poppy-seed, garlic, ginger, *Ghee*, or boiled butter, and medicines.

Cotton-wool is sold by the *Tucu* of 50 *Polams*= $10, \frac{111}{1000}$  lb.

## Dry Measures in use.

56 Dudus weight of Horse-gram (seed of Cubical inchest the Dolichos biflorus) - - 1 Puddy - =  $45, \frac{305}{1000}$  224 Dudus, or 4 Puddies - - - = 1 Bulla =  $181, \frac{22}{100}$  8960 Dudus, or 40 Bullas - - - = 1 Candaca= $7248, \frac{8}{10}$  The Candaca, therefore, contains  $3, \frac{172}{1000}$  bushels.

#### Coins.

Accompts are kept in Sultany Rupees, and fractions.  $\frac{\tau}{2}$ ,  $\frac{\tau}{4}$ ,  $\frac{\tau}{8}$ ,  $\frac{\tau}{16}$ , &c. as usual in India. The sixteenths here are called Vishuns. The variety of coins current is very great, and hardly any of them are aliquot parts of the Sultany Rupee; nor is there any regulated price

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CHAPTER for their value, the money-changers managing the affair as they please. The following is the market-price at present, in Sultany Oct. 16, 17. Rupees, and decimal parts.

### Gold Coins.

Varahun Sultany, or Tippoo's Pagoda	-	Sy. Rs	. <b>3</b> ,625
V. Bahadury, or Hyder's ditto -	-	•	3,625
Pu Varahun, or Star ditto -	**	_ +	3,25
Feringy ditto, or Porto Novo ditto	-	7	2,75
Sultany Panam, or Fanam -	-	<del>-</del>	0,2335
Vir'-Ráya ditto, or ditto	-	-	0,2222
Gopaly ditto, or ditto	-	-	0,125

## Silver Coins.

Sultany Rupea	-	-	-	-	1,0
Pondicherry ditto	-	-	-	-	1,0
Company ditto, R	Supee coin	ed at M	[adras	••	0,9062
Arcot ditto -	_	-	-	-	0,875
Myla Panam, dou	ble Fanar	n of Ma	dras	-	0,1481
Shina ditto, or sin	gle Fanan	n of Ma	dras	-	0,0740

# Copper Coins.

Ani Dudu, or elephant Dub of Madras English - 0,0146
Ani Cashi, or ditto - Cash of ditto - 0,0029

The Sultany Rupea contains 165 grains of pure silver, and therefore would be worth, at the royal mint in the Tower, a little less than 2s. But  $3\frac{1}{4}$  Rupees purchase one Star-Pagoda, containing  $41\frac{47}{100}$  grains of pure gold, which are worth at the same  $88\frac{1}{4}$  d. nearly: besides, one Rupee exchanges for  $4+\frac{1}{4}+\frac{1}{4}$  of  $\frac{1}{8}$  Sultany Fanams, which reduced to decimals is 4,2812, and these at the mint price are worth 32 d. Silver therefore, both here and at Seringapatam, is of considerably more value in proportion to gold,

than it is by the standard of British coin. In all calculations I shall CHAPTER reduce the money to the British standard by the most common coins current in the province of Coimbetore; and these are the Oct. 16, 17. Sultany and Vir'-Rayu Fanams: the former is worth at the British mint  $7\frac{489}{1000}d$ . and the latter  $5\frac{952}{1000}d$ .; but where great precision is not wanted, the one may be taken at  $7\frac{1}{2}d$ . and the other at 6d. For changing a Rupee into copper money, the dealers in coin take two Cash. If silver is wanted for gold, nothing is required; but if gold is wanted for silver, nine Cash are required for every Pagoda. The shells called Couries are not current.

#### Road Measure.

Distances are reckoned by the time a man ought to take in walking them. The distance a man can walk in the Hindu hour, or twenty-four European minutes, is called Urnalivully; which must be what Major Rennell means by a coss of the Carnatic, whereof  $37\frac{1}{2}$  go to a degree.  $7\frac{1}{2}$  Urnalivullies are reckoned 1 Cadam, or day's-journey with loaded cattle.  $2\frac{1}{2}$  Urnalivullies are equal to one Sultany Coss, or Hardary. Coss, it must be observed, is a word from the north of India.

The principal native officer here says, that people are now em- New meaployed in measuring the lands which belong to all the villages in valuation. this lately acquired division of Major Macleod's district. measurement, however, will be by no means complete; as large hills and wastes are not included within the boundaries of any village, and will not be comprehended in the accompts. Even within the village boundaries it is only the lands that are considered arable, or as capable of being made so, that are actually measured; steep and rocky places are taken by conjecture. The people employed to measure are called *Peymashi* (i. e. measurers); as while they measure the land they put on it a fair valued rent, which is to be that levied on the farmers, as soon as the valuation is complete. In the mean while the cultivators pay the tax to government by an old

CHAPTER rental and measurement, which is extremely unequal and erroneous. The fields have been found to contain from 1/4 more to Oct. 16, 17. double of what they ought to do, and their rents have been found to be not at all in proportion to the quality of the soil. The surveyors are dependent on the collector alone; and their reports are made up into proper form by fifteen clerks called Mutasiddies, who reside at the principal office.

Rent of dryfield.

The old Bullas of dry-field let from eight to twenty-five Canter'-Râya Fanams; but it is impossible to say what this would amount to by the acre, owing to the inequality of their dimensions.

Rent of watered land.

Formerly the watered lands were let by a division of the crops, and in the country below the Ghats the government took twothirds of the crop, leaving one-third to the cultivator. About thirty years ago this was altered by Hyder, who introduced a fixed rent, the accompts being kept in Vir'-Raya Fanams. On this many of the old farmers, who were mostly Brahmans, ran away, and the ground was forced upon those who remained, and the Súdras, who had formerly been chiefly employed in cultivating dry-field. The Sultán raised the rents from Vir'-Ráya to Canter'-Ráya Fanams; on which all the old farmers disappeared, and the lands fell entirely into the hands of the Súdras, who were obliged to betake themselves to a better mode of cultivation, that they might be able to pay the The watered lands are let by what is computed to be a high rent. Candaca sowing. The actual rent for one of these is from eighty to two hundred Canter'-Raya Fanams; but one hundred and twenty may be taken as the average, which is equal in value to twelve Candacas of rough rice. The whole additional rents imposed by the Sultán have been removed; and, owing to the poverty of the farmers, an abatement of ten per cent. has been made, from what was demanded by Hyder. My informant does not think that the land-tax under that judicious prince was by any means exorbitant. He says, that the farmers always prefer the division of the crop, to a fixed rent; partly from their being able to defraud the government;

and partly from those who are necessitous being obliged to sell off CHAPTER the whole of their grain immediately after harvest, in order to pay the rent. Such a large quantity brought into the market at once Oct. 16, 17. unavoidably depresses the price. The plan which Purnea has adopted in the vicinity of Seringapatam seems an excellent one; he has there fixed the quantity of grain to be paid annually; by which means fraud is avoided, and the farmer is not forced to sell his grain to a disadvantage. A farmer cannot be turned out of any field that he has cultivated, so long as he pays the fixed rent, but he may give it up whenever he pleases. Advances of money, for one year without interest, have been made by the Company to such of the poor farmers as chose to accept of this assistance, in order to enable them to carry on cultivation. The government keeps up all reservoirs or canals for watering the land; which is done by paying money wages to day-labourers, under the inspection of the district native officers, or, if the work be great, under the inspection of an officer (Daroga, or Mutasiddy) appointed for the purpose.

Every village had formerly an hereditary chief, or, as he is called Village offiin the Tamul language, a Munigar; and every large village, or every two or three small ones, had an hereditary accomptant, called here Canicapillay. An order was issued both by Hyder and Tippoo. that all offenders and peculators should be dismissed from these offices, and new men appointed in their stead; but these orders were never enforced until it was done by Major Macleod. new men are considered as put in possession of an hereditary office, and are liable to forfeiture on account of misdemeanour.

On the fifteenth of November, and the forty-five following days, Manner of every farmer gives in to the Canicapillay, or village accomptant, a letting the lands by the list of the fields which he undertakes to cultivate for that year. Cancapillays. The accomptants then assemble, and deliver to the collector a list of all the lands that have been taken; the rental of the lands so taken is then made out from the fixed valuation, and the whole farmers of each village are jointly bound for the payment of its

lages.

Oct. 16, 17.  $Munig.rs, {
m or}$ 

CHAPTER rent. This is the principal duty of the Canicapillay, but he is also bound to assist the Munigar in collecting the rent.

The Munigars are not now permitted to rent or farm their villages; chiefs of vil- as it was found that they spent the money, as it was raised from the cultivators, and were not able to fulfil their engagements. The rents are now paid by eight monthly instalments, which are received from the cultivators by the Munigar, and immediately transmitted to the chief officer of the district, called a Tahsildar. Whenever a farmer is deficient in the payment of an instalment, he is by the Munigar carried to the Tahsildar, who puts him in confinement until his effects are sold; and any deficiency that there may then be, is made up by a contribution from the other farmers. It becomes thus impossible for any man to conceal his property in order to defraud the government, as every neighbour is interested to watch over his conduct.

Inferior village officers.

The only other village officer is the Toti, who serves as a messenger and watchman. In villages where there is rice ground, there is also a Nunjy, or man to distribute the water, and watch over the reservoirs and canals.

Pay of the village officers.

The whole of these are paid by government, and the proper allowance is for the Munigar two per cent. on the rental; for the Canicapillay two per cent.; for the Toti  $1\frac{1}{4}$  per cent.; and for the Nunjy  $1\frac{1}{4}$ ; in all,  $6\frac{1}{2}$  per cent.: but in small villages this allowance is increased, and in large ones it is diminished, so as to make the whole reasonable.

Lands belonging to the village gods.

In every village there are charity lands belonging to the Grama Dévatas; that is to say, to their priests, who in this country are never Bráhmans. These lands are cultivated by the priest, who pays a small rent, but one very inadequate to their value. The Sultán ordered all these lands to be resumed; but he could not carry the order into execution, and Major Macleod does not attempt to enforce a measure so odious.

Unreasonable exactions abolished.

The officers of government, in travelling on public business, were

formerly provided at the different villages with forage for their CHAPTER cattle, and with firewood, without payment; but Major Macleod has entirely abolished this vile practice.

Oct. 16, 17.

This country, under Major Macleod's management, is divided Division of into Talucs, paying annually from 28,000 to 45,000 Star Pagodas, or into Talucs, from about 10,293 l. to 16,545 l., if the Pagoda be taken at its mint or districts. value. The establishment of officers for a Taluc is one Tahsildar; one Sherishtadar; three Gomastas, Mutasiddies, clerks, or agents; one Saraf, or money-changer; one Gola, or treasurer; six Raiasa, or letter-writers; and from thirty to forty Attavanies, or messengers: besides a proportion of the five or six hundred Candashara, or armed men, that are kept in the whole country. All these receive monthly wages.

The duty of the Tahsildar is to travel through their districts, in- Tahsildar. specting the conduct of the village officers; so as to prevent them from oppressing the farmers, and from cultivating any ground, except that which pays rent. He superintends the repairs of tanks and canals, receives the rents from the village officers, and transmits them with care to the general treasury. He acts as civil magistrate, in the first instance deciding all causes, but in every case there is an appeal to the collector. As officer of police, he takes up all criminals; and, having examined witnesses, sends an account of the proceedings to the collector, who either orders punishment, or, if not satisfied, personally investigates the matter. He has no power, without orders from the collector, to inflict corporal punishment. There is no jurisdiction in the province of a civil nature, that possesses the power of life and death; a want of which authority is much felt, as murders and robberies are very frequent. In order to punish the more daring attempts of this kind, recourse has necessarily been had to courts martial. Eight chiefs of villages went to the insurgent Dundia, and procured from him an order to plunder the country. Having returned with this commission, they collected about five hundred ruffians, and plundered Sati-mangala. Thirty of

CHAPTER these people, having been taken, were hanged about four months ago. Had not very vigorous measures been taken to repress their Oct. 16, 17. barbarity, every farmer in the district was ready to have joined them, in order to share in the plunder of the towns. It must indeed be observed, that throughout India the military portion of the Súdra cast, who are the common class of cultivators, are all by inclination addicted to robbery.

Serishtadar and Mutasiddy.

The Serishtadar and Mutasiddies are accomptants. The accompts were formerly kept in the Canarese, or language of Karnáta; but, since the country came under the Company's dominion, they have been changed into the Marattah. Both languages seem improper for the purpose. The accompts ought certainly to be kept in the language of the Tamuls, which is that of the country, and which would not require the revenue officers of Madras to become acquainted with an additional dialect.

The Munigar, or chief, is also hereditary village priest.

Having assembled the most intelligent farmers in the neighbourhood, they told me, that, whatever government may choose to do with his power and emoluments, the real hereditary Munigar will always continue to enjoy his rank as chief; for he is the only person who can perform the annual sacrifice to the goddess Bhadra Káli, to whom in every village there is a temple, as being the Gráma Dévatá, or village deity.

Religious establishment.

When Tippoo stopped the allowances that had formerly been granted to the temples of the great gods, the revenue officers collected money from the people in order to celebrate the usual festivals. For the two last years of the Sultán's reign the Mussulman officers pocketed one half of these collections, and gave the remainder to the Bráhmans; so that none of the festivals were celebrated. The people seem much pleased with the restoration of their ceremonies, for which an allowance is made by the collector.

Size of farms, and quantity of stock.

In Hyder's government a rich farmer would have, in constant employ, thirty men servants, and fifteen women. He would have also twelve ploughs, forty-eight oxen, one hundred and fifty cows,

and two hundred Adu, or sheep and goats. Such a man would cul- CHAPTER tivate fifty Bullas of dry-field, or seventy-five Cheis of rice-land. Taking the average excess of the estimated contents of fields, Oct. 16, 17. above actual measurement, to be sixty per cent. this would make such a man's farm about three hundred and seventy acres of dryfield, or one hundred and fifty-eight acres of rice-ground. The number of servants seems by this account to be greatly exaggerated, and also the quantity of land that was cultivated by one plough. A farmer is now reckoned rich who has four ploughs with two oxen to each. The generality have at present two ploughs, and cultivate about four Bullas of dry-field, or about twenty-five acres, following the same rate of size for the computed Bullas as before mentioned. Although these men complain thus of their want of stock, they must not be implicitly credited; for, when afterwards questioned concerning the manner of ploughing, they say, that one man is kept for every plough; that he goes out at sun-rise with two oxen, and ploughs until near noon, when he is allowed an hour for breakfast. He then ploughs, until sun-set, with another team; so that for every plough four oxen must be allowed.

The hinds, or servants hired for the year by the farmers, are here Price of lacalled Puddial, and are on the same footing with the Batigas of bour. Karnáta. They sometimes bind themselves for a number of years, in which case the master advances money for their marriage expenses, and deducts so much from their monthly pay, until he is repaid. Unless tied down by some stipulation of this nature, they may change their service whenever they please. A servant gets from his master a house, and from fifteen to twenty Gópály Fanams, or from 5 s. to 6 s. 8 d., a year, with a monthly allowance of twenty Bullas, or  $1, \frac{5 \cdot 5}{1000}$  bushel of grain. Their wives, when they are able to work, have daily wages. Day-labourers at harvest time, whether men or women, get daily one Bulla and a half (rather more than 1 bushel) of the grain called Cambu. At weeding the crops,

CHAPTER the daily wages are one Bulla of Cambu, or about  $\frac{1}{12}$  of a bushel. A man working with a hatchet or pickax gets one Gópály Fanam Oct. 16, 17. (about 4d.) a day; carrying earth in baskets, or the like, he gets  $\frac{3}{4}$  of a Gópály Fanam, or 3d; and porters, for carrying a load eight Urnavullies, or Malabar hours' journey, get two Gópály Fanams, or nearly 8 d.

Implements of husbandry.

The implements of husbandry are here more miscrable, and fewer in number, than those used above the Ghats. The farmers of Chéra have no carts, no drill plough, no rake, nor hoe drawn by oxen, nor do they use even a bunch of thorns to supply the want of a harrow. Their plough is the same with that used in the vicinity of Seringapatam, and they have all the small iron instruments that are in use above the Ghats, except the Ujari, or weeding-iron. To plough a Bulla of dry-field once in one day, six ploughs are required.

Nunjy, or wateredland.

The quantity of watered land, or of Nunjy as it is here called, being very small, I shall defer taking any account of its cultivation till I go to a place where it is in greater plenty. A fine canal is taken from the Bhawani here, by means of a dam; but the ground that it supplies with water is chiefly in the neighbourhood of Erodu.

Punjy, or dry-field.

The principal cultivation here is that of dry-field, which in this country is called Punjy.

Holcus spicatus, or Cambu.

Cambu, or Holcus spicatus, is by far the greatest article of culture. It is of two kinds, Arsi and Natu.

Of the kind called Arsi Cambu.

The Arsi Cambu is cultivated as follows. The field is manured with dung. From about the 16th of April to the 10th of June, it is ploughed four times, and after each ploughing the roots of grass and weeds are removed by the hand. The seed is then sown broad-cast, and covered by the plough. A month afterwards the field is ploughed again; and fifteen days afterwards this is repeated in a cross direction, the corn being then about six inches high. The intention of these two ploughings is to kill superfluous plants. Weeds, as they spring up, are removed by the hand. In three months and a half

the Cambu ripens. The ears or spikes of grain are first cut off, and CHAPTER immediately trodden out by oxen, and the grain cleaned with a fan. If kept in bales, bound up with straw, the grain will preserve Oct. 16, 17. for ten years; but that intended for present use is put into pits, where it will not keep more than three months. The straw is afterwards cut down close to the ground, and is used both for thatch and as fodder, for which it is here preferred to the straw of rice; but I observe, that in every district the straw which is most common is preferred for fodder; merely from custom and prejudice, without any actual or rational experiment having been made to ascertain its comparative value. A Bulla land requires four Bullas of seed; or an acre, 0,08486 decimal parts of a bushel. In a good crop it should produce seventy-two fold, or two hundred and eighty-eight Bullas, which is at the rate of  $6, \frac{1}{1000}$  bushels an acre. The Arsi Cambu thrives best on a light sandy soil, called here Padagu; next best on Shin and Eram soils, or red and black moulds; next best on Callan Cumy, or soil containing rounded stones. For this object of culture, soil containing calcarious Tufa, or fixed rocks, is very bad. The farmers have no knowledge of the advantages to be derived from a change of crops. They know that some exhaust the ground more than others; but the remedy which they apply is giving a greater quantity of manure to the crop that follows one of an exhausting nature; and they often continue for many years successively to cultivate the same field with the same crop. are here sensible of the advantage of fallow; but very rich people only have recourse to what is considered as a very expensive mode of improvement; as they must pay the rent for the field, whether they plough it or not. In general, it is thought that the difference in the crop after a fallow does not make up for the loss of a year's rent. Cambu is not considered to be an exhausting crop.

The Natu Cambu seed is different from the Arsi, and is culti- Cambu of the vated in a different manner. The field is manured and then  $\frac{\text{kind called}}{Natu}$ . ploughed once between the 10th of April and the 10th of May.

CHAPTER Between the 10th of June and 10th of July it is ploughed a second time. It is sown with the commencement of the rainy season, Oct. 16, 17. which generally happens from the 10th of July to the 10th of September, though sometimes the rains do not commence until between the 10th of September and 10th of October; in which case, the sowing of the Cambu must be deferred until the rains begin. sowing is preceded and followed by a ploughing; after which the crop is managed exactly like the Arsi Cambu. It requires five months to ripen, and is equal in quality to the other kind; but from the same quantity of seed, and extent of ground, yields only half of the produce.

Grains sown along with Lichos Catsjang.

With both kinds of Cambu are sown two kinds of pulse. along with Cambu Do- seed of Tata Pyru, or Dolichos Catsjang, is mixed with that of the Cambu, to the quantity of half a Puddy to the Bulla land, and then sown with it. If the Cambu does not thrive well, this pulse produces about twelve Bullas, or about  $\frac{1}{4}$  bushel on the acre. If the Cambu is a good crop, the quantity of pulse will be about one fourth part less.

Dolichos. Lablub.

Muchu Cotay, or Dolichos Lablab, is also sown with Cambu. the day after sowing the Cambu, furrows are drawn through the field, at the distance of six cubits, and about two Bullas of the Muchu Cotay seed is dropt into the furrows of one Bulla land. If the Cambu grows properly, this pulse will only produce about twelve Bullas; but, if the crop of Cambu be bad, that of the pulse will amount to twenty Bullas, or to less than  $\frac{1}{2}$  bushel on the acre.

Sesamum.

Sesamum is sometimes sown mixed with Cambu; but in such small quantities, as not to be an object worth particular consideration.

Dolichos biflorus, or Colu.

Next to Cambu and its concomitants, the most considerable crop here is Colu, Horse-gram, or Dolichos biflorus. From about the middle of September to that of October, plough once, sow the seed broad-cast, and cover it with the plough. It requires no manure; but, if some dung be given, the crop will be greatly improved. It ripens in five months; a Bulla land requires six Bullas of seed, and in a good crop produces ninety-six Bullas. The seed for an acre, CHAPTER according to this, will be  $\frac{\tau}{8}$  bushel, and the produce two bushels.

The next most considerable crop is cotton. It is of two kinds, Oct. 16, 17. Upum Pirati, and Nadum Pirati.

The seed of the Nadum Pirati, to the quantity of six Bullas for the Nadum Pi-Bulla land, is mixed with the usual quantity of Cambu, Colu, or Sholum, and sown broad-cast, without any farther preparation than would be necessary for the single crop. After the crop of grain has been cut down, the field is ploughed four times between the plants. The intervals between these ploughings are from ten days to a month, according as rain happens to come; for each ploughing must be performed immediately after a copious rain. The cotton next year produces a small crop in the month which commences about the 12th of July; and a larger crop in that which commences about the 10th of January. On the third year the field is ploughed again in July, and gives then a small crop. It is ploughed again in the month commencing about the middle of November, and gives a good crop in January. The field is then manured, and cultivated for two years with grain. With the third crop the cotton seed may be again sown. The crop of grain accompanying the cotton on the first year is as good as that sown by itself. Some poor people sow a crop of Cambu among the growing cotton plants, in the second and third years; but it produces very little. The quality of the July and January crops of the same year is equal; but the crops of the second year are superior, both in quantity and quality, to those of the third. The cotton, as sold by the farmers, is mixed with the seed, and, according to the demand, varies from two to four Gópály Fanams a Tucu, for that of the first two crops. The produce of the two crops of the third year sells for about  $\frac{1}{4}$  of a Fanam lower than that of the second year.

Cotton, or Pwati.

CHAPTER
IX.
Oct. 16, 17.

Produce of a Bulla land.

Sopuly Fanams.

1st year, 288 Bullas of Cambu, average value - 57\frac{1}{4}

2d year, July crop seven Tucus of cotton, January crop 8 Tucus 45

3d year, ditto - two ditto - - - - ditto two ditto 12

Gópály Fanams 1143

This, divided by three for the years employed, would give only  $38\frac{1}{3}$  Gópály Fanams for the yearly gross produce of a Bulla land of the worst quality, or 3s.  $2\frac{1}{3}d$ . an acre.

Cotton called Upum Pirati.

The Upum cotton is raised on Erum bumy, or black mould; and in this kind of cultivation the following succession of crops is taken: first year cotton; second year cotton; third year Cambu (Holcus spicatus); fourth year Sholum (Holcus sorghum). The cotton ought to have dung, but this is sometimes omitted. The manure is first put on, and then the field is ploughed four times, from about the middle of August to that of October. With the first rain, in the following month, the cotton-seed is sown broad-cast, and ploughed down. From the 12th of December to the 12th of January, the weeds are removed by a small hoe named Cotu. The crop is collected from about the beginning of April until the 10th of May. If there come rain afterwards, there is from the middle. of July to that of August another small crop, and then the field is ploughed up again for the second year's crop, which is managed exactly like the first. The two crops of cotton are nearly equal in quantity and quality. The Upum cotton sells for nearly the same price as the Nadum, although the wool is not of so good a quality; but then its seeds bear a smaller proportion to the wool, than those of the Nadum cotton do. A Bulla of land requires eight Bullas of seed, and in favourable seasons produces fifteen Tucus in April, and five Tucus in July. The merchants sell it, with the seed, to the women who spin. A woman takes two days to clean one Tucu of cotton, and to fit it for spinning.

Near Bhawáni-kudal these are by far the most considerable crops. CHAPTER But several other articles are cultivated.

The Oct. 16, 17. Panicum mi-

Shamay, or Panicum miliure E. M. is cultivated as follows. field is manured, and then ploughed from two to four times in the har. E. vi.or two months following the 12th of July. In the beginning of Sep-Shamay. tember, sow broad-cast, and plough in the seed. The weeds must be removed with a small hoe in the end of October, and again about the end of November; and in five months the crop ripens. The proper soil for this is a red mould called Shin bumy; nor does it here thrive on the sandy soil that is generally used for it above the Ghats. It does not exhaust the ground, and its straw is reckoned a better fodder than that of Cambu. A Bulla land requires six Bullas of seed, and produces three Podis, or two hundred and eighty-eight Bullas. The acre, therefore, requires 0,12729 bushel of seed, and produces  $6\frac{11}{100}$  bushels.

Varagu, or the Paspalum frumentaceum of Dr. Poxburgh's MSS. Paspalum and probably the Paspalum koru of Willdenow, is cultivated as fol-frumentalows. The field, having been previously manured, is ploughed twice or thrice, from the 10th of April to the 10th of June. The seed is sown broad-cast about the last mentioned time, and then covered by a ploughing. Next day the Tovary seed (Cytisus Cajan) is drilled in furrows six cubits distant. A month afterwards the plants will be a span high, and the superfluous ones must be destroyed by ploughing the field. Fifteen days afterwards this must be ploughed again in a direction crossing the former at right angles. The Varagu requires seven months to ripen, and the straw is bad fodder. A Bulla land requires for seed six Bullas of Varagu, and two of Tovary. In a good crop it produces one hundred and ninety two Bullas of the former, and fifty of the latter. An acre, therefore, requires for seed  $\frac{1}{4}$  bushel of Varagu, and  $\frac{1}{12}$  bushel of Tovary, and produces  $4\frac{8}{10}$  bushels of the former, and  $1\frac{1}{4}$  of the latter.

Pani Varagu, or the Paspalum pilosum of Dr. Roxburgh's MSS. is Paspalum cultivated as follows. Having manured the field from about the pilosum.

Oct. 16, 17.

CHAPTER middle of August to the middle of October, plough it immediately twice or thrice; sow the seed broad-cast, and cover it with another ploughing. At the end of a month, weed with the small hoe called Cotu. It ripens in sixty days. The straw is very good for cattle. It is, however, sown in such small quantities, that no estimate can be formed of the produce of a Bulla land.

Sesamum.

Here are three kinds of Ellu, or Sesamum, that are cultivated; and the seeds are always kept separate, and cultivated at different scasons.

Car' Ellu.

The Car' Ellu has a black seed, and is sown with Cambu (Holcus spicatus), as I have already mentioned.

Cur' Ellu.

The Cur' Ellu has red seed. Between the 10th of April and 10th of May the ground is ploughed once, sown broad cast, and then ploughed again. At the end of a month the weeds are pulled up by the hand. In three months the seed is ripe. A Bulla land requires  $1\frac{x}{3}$  Bulla of seed, and in a good crop produces ninety-six Bullas, or one Podi. An acre, therefore, requires  $\frac{1}{16}$  bushel of seed, and produces two bushels.

Vullay Ellu.

The Vullay Ellu has white seed. The field for this must be manured, and ploughed once or twice in August, or the beginning of September. About the middle of September the seed is sown, and covered by the plough. At the end of a month the weeds must be removed by the hand or hoe. The quantity sown on a Bulla is the same as of Car' Ellu. It ripens in four months, and a Bulla land in a good crop produces sixty-four Bullas; or an acre one bushel and a half. The soil proper for Ellu is Shin Bumy, or red mould; but a sandy soil also answers. This crop is reckoned very exhausting.

Holcus sorghum.

Sholum, or Holcus sorghum, is cultivated as follows. nured the field, it must be ploughed twice or thrice between the 10th of April and 12th of May, and between that time and the 10th of June it is sown broad-cast, and ploughed again. Next day drills are made for Avaray (Dolichos Lablab) and Tovary (Cytisus Cajan); and some seeds of a cucurbitaceous fruit, called Shucum Velari Cai,

are often intermixed. At the end of a month the field is ploughed, CHAPTER and the weeds removed by the hand. In six months it ripens. A Bulla land, for seed, requires four Bullas of Sholum, and, besides Oct. 16, 17. the pulse, produces in a good crop two *Podis* of *Sholum*, or one hundred and ninety-two Bullas, which is at the rate of  $4\frac{8}{10}$  bushels on Erum and Shin bumies, or black and red moulds, are equally well fitted for this grain. The straw is reckoned better fodder than that of Cambu.

Tenay, or Panicum italicum; Wulindu, or Phaseolus minimoo Rox- Grains cultiburgh's MSS.; Pacha Pyru, or Phaseolus Mungo; and Cotay Mutu, vatedin small or Ricinus Palma Christi, are also cultivated here; but in such very small quantities as to render them of no importance.

I suspect that the produce of these crops is under-rated by the persons who gave me this account.

The principal native officer here says, that in Major Macleod's Forests and district there is no forest-renter; and that any person who pleases may cut Bamboos, or forest trees. Nor is any rent exacted from those who feed cattle in waste lands, except where the pasture is very good; and there, for an exclusive privilege of keeping their herds, some people pay a trifle. The honey is collected by the farmers of each village, who keep the wax for their trouble, and ought to give the honey to the government. That which is produced on the high hills is rented by the tribe called Soligas. In this district there is no Lac.

At Baraguru and Punuchi near Alumbady, and in one place near Sandal wood, Gujul-hatty, sandal-wood is procured. People are hired by the collector to bring it here. It is cut, on the spot, into billets from one cubit to one and a half in length, and the white wood is immediately removed. The rough billets are then sent to Bhawání-kudal, and have as yet been all kept there just as they were brought, without being sorted or polished. It is reckoned inferior in quality to that which comes from the western part of the Mysore Rájá's dominions; but none has as yet been sold. None of it is stolen, and

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CHAPTER care is taken to cut that only which is ripe; so that there will be a certain quantity procured annually. My informant thinks that this Oct. 16, 17. will amount to about four hundred loads, each weighing eight Maunds of forty Seers of twenty-four Dudus; or in all about six hundred and ninety-three hundred weight.

Oct. 18. Appearance. of the counuy.

18th October.—I went seven Indian hours' journey along the northern bank of the Bhawani, to Apogodal. The country through which I passed is level, and well peopled; and the quantity of waste land is not considerable: it indeed seems too small to be able to afford pasture for the cattle. I saw eight or ten acres only of rice-ground, and one half of that was waste. The only fences were a few hedges made of dry bushes. The cultivation is extremely slovenly, more so even than in any place above the Ghuts. It is said, that at any distance from the river one half of the fields is waste. Near the hills is Andeuru, the chief place of a large district comprehending Káverí-pura and Bhawání-kudal. In its vicinity are said to be seven reservoirs in repair, which supply with water a considerable quantity of rice-ground.

Apogodal.

Apogodal contains a temple of Iswara, and about one hundred houses, but has not a single shop. Bazars, or shops, indeed, seem to be uncommon in this country; and the inhabitants supply themselves with necessaries at fairs, called here Shanday, and which resemble the Hauts and Gunges of Bengal. Apogodal was sold by Hyder to a banker named Valmun Doss, who gave sixty thousand Pagodas on condition of holding it as a Jaghire. It then contained between three and four hundred houses. The head man of the village says, that five years after this sale, and about thirty years ago, the Marattahs invaded the country, and laid every thing waste; since which it has never recovered its former prosperity. He remembers no other invasion; I therefore suspect that the Marattahs he speaks of was the army of General Meadows; all matter of history being in a sad confusion in the mind of a Hindu. He says, that after the invasion a famine followed, which destroyed a great part of the inhabitants. The epidemic distemper prevailed CHAPTER among their cattle last year, and carried off about three-eighths of their stock; but they met not with the smallest disturbance from Oct. 18. the war.

When Hyder sold this place to Valmun Doss, a small land measure Rent. was introduced, and a Bulla land was called one and a quarter. Tippoo afterwards seized on this man's property, which was then measured, and what his villainous officers called a Bulla is now found to contain twice that extent. I measured a Bulla here, and found it agreeable to the standard at Bhawani-kudal. It was of a very poor soil, fit for Cambu, and paid ten Fanams rent, or at the rate of  $18\frac{3}{4}$  d. an acre. The best dry field here lets at thirty-five Canter'-raya Fanams, and the worst at five, for the Bulla. The acre therefore lets at from 6s. 6d. to nearly 9<sup>1</sup> d.

Although the farmers of Bhawani-kudal omitted it in their ac- Crotolaria count of the produce of the country, I found that on the banks of juncea. the river a great deal of Shanapu, or Crotolaria juncea, is cultivated. It is here raised by the farmers, and, when fit for being put into the water, is sold to the people called Telinga Chitties, who make the hemp, and work it up into Goni, or sack-cloth. The field is dunged, and ploughed twice, between the twelfth of July and the same day of August. At any time in the course of the two following months, after a rain, the seed is sown broad-cast, and covered by the plough. At the same time any bushes that have not been ploughed down must be removed by the hand. In order to prevent the plant from putting out side branches, the seed is sown very thick; ninety-six Bullas are therefore required for a Bulla land, or rather more than two bushels for an acre. It is sold by the thousand handfuls, or as much as a man can grasp between his finger and thumb. Tall plants sell at two Rupees for the thousand handfuls, short ones for one Rupee and an half. It thrives best on a poor sandy soil, but is also cultivated on black and red moulds. It is reckoned to improve the soil for every other kind of crop; but it cannot be cultivated on

IX.
Oct. 18.
Panicum
italicum, or
Tenay.

CHAPTER the same ground for two successive years. Cattle will eat the seed;

IX. but when given to cows with calf, it is said to produce abortion.

Near Apogodal, Tenay, or the Panicum italicum, is raised in greater quantities than at Bahwání-kudal. It is cultivated exactly like the Arsi Cambu, and ripens in three months. Its straw is worse fodder than that of Cambu. A Bulla land requires eight Bullas of seed, and in a good crop produces three Podis, or two hundred and eighty-eight Bullas: an acre, therefore, requires  $1,\frac{1}{1000}$  gallon of seed, and produces  $6,\frac{1}{1000}$  bushels.

Produce of the most common crops. The principal dry crops here are explained in the following table:

Kinds.	s	eed.	Produce.		
XIIIus.	Per Bulla.	Per Acre.	Per Bulla.	Per Acre.	
Cambu	Bullas. 6 10 8 8 8	Gallons. dec. 1,018 1,697 1,358 1,358 1,358	Podis. 3 2 2 2 4 4	Bushels. dec. 6,11 4,073 5,092 8,147 8,147	

Oct. 19. Bhawání river. 19th October.—I went a very long stage, called nine hours journey, to Nala-ráyana-pallyam, a small village on the bank of the river, which at all seasons contains running water, and has here many pools, which are always deep, and harbour crocodiles.

Appearance of the country.

More than three-fourths of the country through which I travelled seemed to be waste. I passed a fine reservoir full of water. In the ground which it irrigates, cultivation was just commencing; for the whole had been waste last year. Several clear streams run down from the hills to the *Bhawání*. The soil is sandy, and contains many loose stones and rocks; but traces are to be seen of the whole having been formerly cultivated.

There being much rice cultivated near this, I assembled the most CHAPTER intelligent farmers, and took from them the following account of the cultivation of Nunjy, or watered land. No rice can be made in this country by the rain water alone; the whole must be artificially of watered supplied, either by canals or by reservoirs. A dam on the Bhawani, three Malabar hours' journey below Sati-mangala, sends off a canal to each side of the river. That which goes on the south side, and passes through the district called Gópála Chitty Pallyam, waters a great extent of ground. This one, that comes on the north side through Sati-mangala, waters eleven hundred Candacas of rice-land, and one hundred and thirty-two Candacas of gardens. Two hundred of these Candacas are at present unoccupied; and a moderate repair given to the Dam, would enable it to water in all thirteen hundred and fifty Candacas of rice-land. The Candaca here is said to be as much ground as used to be sown with eighty Seers of sprouted seed, and to extend from 1½ to 13 of the new Cheis. It ought, therefore, to be on an average 75,600 square feet. The land watered by canals gives only one crop in the year, but that never fails. A little land watered from reservoirs, when the season is favourable, gives annually two crops; but as the supply in the tank often fails, owing to a want of rain, the rent of the two kinds of ground is nearly the same.

Oct. 19. Cultivation

Thirty-years ago the dry-field was cultivated by one set of men, Rent. and the watered lands by another, who paid to government twothirds of the produce. This was altered by Hyder, who introduced a fixed rent in money, even for watered land. On this many of the old farmers gave up their lands, which were forced on those who remained, and on those who formerly cultivated only dry grains. Tippoo raised the rents from Vir'-Ráya Fanams, in which the accompts had formerly been kept, to Sultany Fanams, of which one hundred are equal to about one hundred and twenty-five of the former. The whole of the old cultivators of the watered lands, who were mostly *Bráhmans*, now disappeared, and the lands were

IX. Oct. 19.

CHAPTER forced upon the cultivators of dry-field, who say that they have thereby been reduced to great poverty. Having a high rent to pay, they have been compelled to betake themselves to greater industry than formerly was practised. They have given up the sprouted-seed cultivation, which required little trouble; and, except on a small quantity of poor low-rented land, have adopted the more laborious culture by transplantation, owing to which the produce of the land has been almost doubled. Those farmers who still cultivate nothing but dry-field allege that they are worse off than those who have taken rice-grounds, as, owing to a regular supply of water from the river, the crop on these never fails. No one, however, could expect, that any of these poor people should confess that they were satisfied with their lot. A sandy loam is here reckoned the most favourable for rice, and, according to its four qualities, lets for 230, 200, 190, and 180 Sultany Fanams a Candaca; or for 4l. 2s.  $8\frac{1}{2}d$ ., 3l. 11s. 11d. 3l. 8s. 4d. and 3l. 4s.  $8\frac{1}{4}d$ . an acre. Black and red clay lands let, according to their quality, for 180, 160, 150, and 140 Sultany Fanams a Candaca; or 31. 4s. 8\frac{1}{2}d. 21. 17s.  $6\frac{1}{2}d$ . 21. 13s. 11½d. and 21. 10s. 4d. an acre. Stony land lets for 140, 130, 120, and 100 Sultany Fanams a Candaca; or for 21. 10s. 4d. 21. 6s. 9d. 21. 3s.  $2\frac{3}{4}d$ . and 11. 15s.  $11\frac{1}{2}d$ . an acre. A still inferior soil lets for 100, 80, 60, and 50 Sultany Fanams a Candaca; or 1l. 15s.  $11\frac{1}{4}d$ . 1l. 8s.  $9d\frac{1}{4}$ . 1l. 1s.  $7\frac{1}{4}d$ . and 17s.  $11\frac{3}{4}d$ . an acre. These rents seemed so high in proportion to the extent of ground, that at the time I suspected the farmers of alleging the dimensions of the Candaca to be smaller than they really are; but I have now reason to think that the statements given here are not materially erroneous.

Bad practices of the co lectors in Tippoo's Lo vernment.

In Tippoo's government the farmers were ordered to pay for the whole lands, whether they were cultivated or not: but a small part only reached the treasury. In order to prevent the people from complaining, small balances were allowed to remain in their hands, while in the public accompts a very large proportion of the nominal

revenue was stated to be outstanding, owing to bad seasons, the CHAPTER desolations of war, or other pretences; and, whatever was not allowed to remain with the farmers was embezzled by the officers Oct. 19. of government. These, however, did not enjoy in quiet their ill-They were in constant terror; and, in order to gotten wealth. prevent information, were obliged to give very high bribes to Meer Sadue, and to officers who were sent round to inspect the state of the country. The illicit gains of even this description of officers did not enrich them. They were all Bráhmans, and spent the whole of their money on dancing-girls, and in what they called charity, that is, money given to men reputed holy. At present, no money is asked for waste lands; but the farmers must pay the full rent for what they cultivate, and all those of a village are bound for the rent of each individual. To this they seem to have no objection, and say, that they never scruple receiving any new cultivator on account of his poverty.

The farmers are very anxious to be put on the old footing of Division of paying the two-thirds of the produce. In order to procure this indulgence, they say that they would undertake to cultivate every spot of rice-land; but confess that they would return to their old habits of indolence, and cultivate only the sprouted seed, by which not only the government would lose much, but the produce of the country would be diminished by at least one half. From the statement given by these men of the produce of their lands, it does not appear that at present they pay more than two-thirds of the produce; their great object, therefore, in the wished-for change is, to have an opportunity of defrauding government in the division of the crops.

Transplanted rice is here called Nadavu, and sprouted-seed is Cultivation called Cai Varupu. The kinds raised, with several particulars at- of nc tending their cultivation, will be seen in the accompanying table. The produce stated in this is that of the best soils, except in the case of the kind called Caru, which now is raised only on the very

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CHAPTER lowest rented fields. The first two kinds in the table are those by far most commonly cultivated; the others, ripening in five months. are sown chiefly on rich lands, that give an after-crop of Ellie (Sesamum) or of Shanapu (Frotalaria juncea), which compensates the deficiency of their produce. All the kinds keep equally well, and the rough rice will keep four years in store-houses. Previous to being put up in these, it must be carefully dried in the sun for three days; and the floors, walls, and roof of the house ought to be It ought not to be opened again until well lined with straw. wanted for consumption.

Table explaining the cultivation of Rice at Nala-ráyana-pallyam, in the Coimbetore Province.										
		ed to		fone Can- Fanams,	ue of el.			Produce		
Kinds,	Crop for which each is fitted.	requir	Quality.	Average Value of data in Vir'-Raya	rage Value	On a Co	andaca-land.		On an Acre.	
		Months		Average daca in l	Average	Quantity.	Value.	Quantity.	Value.	
Jeda Mulligy Deva Ráya Sumbava Gundu Mulligy - Shitta Vogum	Transplanted ditto ditto ditto ditto Sprouted seed	6 52 5 5	Coarse ditto Small Round & small Small Coarse	8 8 1 8 1 8 2 8 2 8 2	1 5, 16 1 5, 16 1 6,24 1 6,24 1 6,24	60 to 55 60 to 55 50 to 45 50 to 45 35 to 30	480 to 440 480 to 440 425 to 382 <sup>1</sup> 425 to 382 <sup>2</sup> 298 to 255	96 to 88 96 to 88 80 to 72 80 to 72 56 to 48	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	

Nadavu, or transplanted crop.

The following is the manner of cultivating the Nadavu crop. In the month following the 12th of July, the ground for raising the seedlings is inundated, and ploughed twice. The labourers then tread into the mud a quantity of the leaves of the following plants. Colinji, or Galega purpurea; Catcotay, or Jatropha Curcas; and Eracyellay, or Asclepias gigantea. The seed, which is preserved in Cotays, or straw bags, is then put with its covering into water,

where it soaks a whole night. Next day it is kept in the wet bag, and on the third day it is found ready for sowing, having pushed forth small sprouts. The field is sown on the third day after the Oct. 19. leaves have been put in, being covered to the depth of one inch with water. The seed is sown broad-cast, and excessively thick, or at the rate of forty-eight Candacas of seed for one Candaca of land. This serves to transplant into thirty-two Candacas; so that one Candaca and a half of seed are required for a Candaca of land, or  $2\frac{4}{10}$  bushels for an acre. On the day after sowing the seed the field is drained. Every other day, for four times, it is covered in the morning with water, which is let off again at night: afterwards it is kept constantly inundated, deeper and deeper as the plants grow. The proper time for transplanting is between the thirtieth and fortieth days; but poor people are often compelled, by want, to protract the operation until between the fortieth and fiftieth days, which injures their crops. In a few days after the seed is sown, the fields in which the seedlings are to ripen are inundated for three or four hours; then ploughed once; then inundated for eight days; then ploughed a second time, having been previously drained; and at similar intervals they must get a third and fourth ploughing, with intervening inundations: so that the fourth ploughing must be on the twenty-fourth day. The field is then kept inundated until the rice is going to be transplanted; and, superfluous water having been let off, the mud is then ploughed a fifth time, and smoothed with a plank (Parumbu) drawn by oxen. The seedlings are transplanted into it in the course of that and the following day. The seedlings, after being plucked, may be preserved in water five days before they are planted. After having been transplanted, they are allowed water, for the first time, on the fifth day. water is drained as soon as the field has been filled; and for the next eight days it is allowed to run in at one side of the field, and out at another. The field is kept afterwards constantly inundated, except on the day when it is to be weeded, which is the

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CHAPTER fortieth after it has been transplanted. When the ears are full and from their weight begin to incline, the water is let off in order to ripen the grain. The rice is cut down close by the ground, and immediately afterwards is put up into stacks, without having been bound in sheaves. Next day it is threshed by striking handfuls of it against the ground. The straw is then exposed to the sun for three days, and then trodden by oxen, in order to procure the remaining grain. That intended for seed is exposed four or five days to the sun, and is then tied carefully up in bags of straw. A plough, with one man and four oxen, is said to be able to cultivate only one Canduca of land; and to the amount of five Candacas of rough rice is required for extra-labour at seed-time and harvest, and for other small charges.

> The Cai Varapu, or sprouted seed cultivation, is as follows. In the month after the 13th of July, the field is watered, and then ploughed. Afterwards it has three other ploughings in the course of twenty-four days, and in the intervals is inundated. It is then watered for four days, ploughed a fifth time, and smoothed with the plank drawn by oxen. The seed is prepared in the same manner as for the other mode of cultivation, and is sown broad-cast, at the rate of one Candaca to one Candaca-land, or of  $1, \frac{6}{10}$  bushel to an acre. For the first three days it has no water, after which once in three days, for four times, it is watered an hour. On the thirtieth and forty-fifth days the weeds are removed, the field having at both times been drained. The crop is afterwards managed exactly as in the transplanted cultivation. It is allowed no manure.

Second crop.

Upon some of the best land a crop of Ellu, or Shanapu, may be taken in the same year with a crop of rice: the former is thought to exhaust the soil, the latter does no harm.

Sesamum. cal ed Car' Ellu.

For Car' Ellu the ground is ploughed between the 10th of March and the 11th of April. It is then sown broad-cast, and the seed is covered by a second ploughing. In three months it ripens without farther trouble, and is followed by a crop of any kind of rice. On

a Candaca-land are sown five Seers, or two Bullas of seed, and the CHAPTER produce is four Candacas. An acre, therefore, sows of the of a gallon, and produces  $11, \frac{0.2}{1.00}$  bushels. This is of an inferior quality Oct. 19. to the Ellu, or Sesamum, that is produced on dry-field.

The Shanapu, or Crotolaria, is cultivated on fields that have Crotolarea produced a crop of rice, between the 12th of January and the 12th Juncea, or Shanapu. of February. In the following month, water the field, sow the seed, and cover it with the plough. Once a month it requires to be watered, and it takes four months to ripen. This is more valuable than the hemp cultivated on dry-field, and sells for about twenty Vir'-Raya Fanams for the thousand bundles. A Candaca-land requires three Candacas seed, and produces four thousand bundles. An acre, therefore, requires 4, 50 bushels of seed, and its produce is worth about 1l. 2s.  $10\pm d$ .

20th October. —I went six Malabar hours' journey to Anacodavery, Oct. 20. the place where the canals are taken from the river Bhawání to water the rice grounds which I described yesterday. The dam by which the water is forced into these canals is said to have been built about one hundred and twenty years ago, by Nunjay Rájá, father of Canter Ráya of Mysore. It is a good work; but in the reign of the Sultan it had been nearly choaked up, and very little of the rice ground was then cultivated. It has lately been cleared, and, as I yesterday stated, the greater part of the fields has been brought into cultivation.

In the immediate neighbourhood of Codavery, most of the fields Face of the are not watered land, and not above a sixth part of them are at desolation of present occupied. The soil in some places is very good; and the remains of many hedges, and traces of cultivation, show not only that the whole country has once been cultivated, but also that the mode of cultivation was superior to any now practised. The devastation has been occasioned by the invasion of General Meadows. There was then no want of rain; but for two years cultivation was

Oct. 20.

CHAPTER at a stop; and whatever grain was in the country was equally swept away by the defending and invading armies. The inhabitants retired to the hills, to procure the small quantity of grain produced in places inaccessible to the military; but there, partly from hunger, and partly from disease, great numbers of them died. On the face of the hills is much of the Cotu Cadu cultivation, which is carried on partly by poor people living on the low ground, and partly by the Soligaru, who live on the mountains, and who have already been described.

Guttimodaly.

The tradition here is, that there were eight or ten Guttimodalies, to whom in succession this country belonged. About two hundred years ago they were deprived of it by the Mysore family. Chica Diva Raya Wodear was the fifth in descent from the conqueror.

Oppression under Tippoo.

The farmers here say, that they now pay the same rent that they did in Tippoo's time, which is a Sultany Fanam for every Vir'-Ráya Fanam that they paid to Hyder. The revenue officers under the late government, although they in general left outstanding balances in the hands of the farmers, in order to prevent them from complaining, extorted every thing that they had from them, by demanding payment of their rents twice, or even oftener, in the year: the receipts granted for the former payments were always discovered to be forgeries. The people sent to inspect the state of the province were instantly bribed. In carrying on public works, it was the Sultan's orders, that every person should be fully paid for his labour. The wages were regularly charged by the superintendants, who gave nothing to the labourers, but just so much grain as would keep them in existence. Access to the Sultan was very seldom procurable by the people who suffered by such means; but some few are said to have reached the presence, where they were kindly received, and sent to Meer Saduc for redress. They were instantly shut up in some dungeon, while the minister reported to his master that the delinquent had been punished; as of course he was, by being obliged to part with all CHAPTER that he had procured by his embezziements. No man had the courage to complain of Meer Saduc.

Oct. 21.

21st October.—I went three Malabar hours' journey to Sati-man-Sati-mangalam, which in the Sanskrit language signifies truly good. The fort is large, and constructed of uncut stone, and has a garrison, but contains very few houses. It is said to have been built, about two hundred years ago, by Trimula Náyaka, a relation of the Rája of Madura, who governed this part of the country for his kinsman. The merchants, who in general are the best-informed Hindus on historical subjects, say, that fifty years afterwards it became subject to Cantirava Nursa Rája of Mysore. From this long dependence on princes of Karnáta, the language of that country is now the most prevalent, although that of the Tamuls is the original dialect of the place, which is a part of Chéra Désam. It is said to have formerly depended on Pandia, which formed the continental possessions of Rávana king of Lanca, or Ceylon.

The Petta, or town of Sati-mangalam, is scattered about the plain Indecency of at some distance from the fort, and in Hyder's reign contained seven worship. hundred and eighty-four houses. These are now reduced to five hundred and thirty-six. Here is a considerable temple dedicated to Vishnu. The Rath or chariot belonging to it is very large, and richly carved. The figures on it, representing the amours of that god in the form of Krishna, are the most indecent that I have ever seen.

The country is at present very unhealthy; and ever since we Air. came through the Káveri-pura pass, some of my people have been daily seized with fevers. The days are intensely hot, with oceasionally very heavy rains. The nights are tolerably cool; to the natives they appear cold.

The country through which I passed to-day is much in the same Appearance state with that through which I came yesterday. Above Codavery try. there are no canals; but there are several reservoirs for watering

Oct. 21.

Candacaland, and doubts respecting the statements at Nala-1 '11ana-pallyam.

CHAPTER the ground. At Sati-mangalam there were four large ones, each of which watered one hundred and fifty Candacas of land, or upwards. One of these is half repaired, the others are totally ruinous. The Candaca here also contains eighty Seers, so that it ought to sow the same extent of land as at Nala-rayana-pallyam; but the officers here say, that the Candacas of land contain from two and a half to four Cheis, or at a medium three and a quarter, which is at least double the size allowed to them by the farmers of that place. If any person be inclined to prefer the account of the officers, the quantity of seed, rent, and produce of an acre of the watered lands at Nala-rayana-pallyam, as stated from the accounts given by the farmers there, would require to be reduced at least one half. These officers of revenue say also, that the farmers at Anacodavery, who stated that they now paid the same rent which they did in the reign of Tippoo, are liars; and that, in fact, the rents are now lower than in Hyder's government, whose assessments were seldom, if ever, exorbitant.

Iron ore.

In all the rivulets of this part of the country, iron ore, in form of black sand, is common; and at a place seven Malabar hours' journey north-east from hence it is smelted.

Torests.

I remained at Sati-mangalam two days, with a view chiefly of procuring specimens of the timber trees that grow on the neighbouring Ghats. In this, however, I failed, through the obstinacy or stupidity of the Serishtadar. In the forests of these Ghats are said to be the following kinds of trees, that produce good timber:

Moluga.

Velingy.

Calicotay Tayca.

Cad' Jehay.

Vaynga.

Chipily.

Vaycali Andersonia altissima Roxb: MSS.

Commerce.

The people here allege, that the rich merchants in this country

never live in towns, but stay in the villages, and collect goods CHAPTER which they carry to Seringapatam by the Gujul-hatty pass, and go thither either this way, or by the Budigupa custom-house, two Oct. 21. miles from Dan' Nayakana Cotay. The goods that are sent up are all the kinds of cotton cloths made in this neighbourhood, Sesamum and castor oils, Ghee, or boiled butter, tobacco, sackcloth, or Goni, sheep, and goats: all the returns are in cash.

The weavers in this district, including fifty Goni-makers, employ Manufaceight hundred looms. The cotton wool used by them is entirely the produce of the country; all the silk used for borders is brought from Saliem. The cloth is either used in the neighbourhood, or sent to Seringapatam. About five months ago the Commercial Re- Company's sident at Saliem came round the villages in this vicinity, and from among the weavers in each appointed a head-man to make advances to the others. He advances to each family so much money as it will undertake to work for in one month. He is answerable for balances, and on each piece gets a commission of one Canter'-Ráya Fanam, or about  $7\frac{1}{2}d$ . The carriage is paid by the Commercial Resident, and he bleaches the cloth at Saliem. The only cloth that he advances for, is a coarse stuff called Shalambru. It resembles the Baftas of Bengal, and is thirty-six cubits long, by two and a quarter broad. It is divided into three degrees of fineness; the first contains nine Calls, and sells for four Rupees and a half, which are worth 9s.  $1\frac{1}{2}d$ ; the second contains eight Calls, and sells for four Rupees, or 8s.  $1\frac{1}{4}d$ .; and the third contains seven Calls, and sells for three Rupees and a half, or 7s.  $\frac{15}{100}d$ . The Call contains 2 punjas, and the punja 62 threads. This cloth seems to me to be cheap, and had never been made here until the commercial resident came.

Native merchants frequently make advances for the cloth in- Native deatended for country use. These persons endeavour to keep the weavers constantly in their debt; for, so long as that is the case, they can work for no other merchant, and must give their goods

IX. Oct. 21.

CHAPTER at a low rate. When a merchant wishes to engage a new weaver, he must advance the sum owing to the former employer. With this the weaver buys goods to fulfil his old contract; but then he becomes equally bound to the person who has advanced the money. A few weavers are rich enough to be able to make cloth on their own account, and of consequence sell it to the best advantage. The cloth for the use of the natives is always sold unbleached.

Weavers, and different kin s of goods.

The weavers in this district are of two kinds, Colcular, and Jadar; but both make the same kinds of cloth, which are as follow:

Shillas, or thin white muslins, 22 cubits long, and 2\frac{1}{2} or 2\frac{1}{2} broad. They are very coarse, and are sometimes striped, and then are called Duputtas. They sell for from 7 to 20 Vir-Ráya Fanams, or from 3s.  $5\frac{3}{4}d$ . to 9s. 11d. a piece. If commissioned, the pieces are sometimes made of double length.

Shoman is the same kind of cloth with silk borders. The pieces are from 22 to 24 cubits long, from  $2\frac{1}{2}$  to 3 cubits broad, and sell for from 8 to 40 Vir'-Ráya Fanams, or from 3s.  $11\frac{1}{2}d$ . to 19s.  $10\frac{1}{4}d$ .

Shaylay is a thicker cotton cloth with red cotton borders. The pieces are 19 cubits long, from  $2\frac{\tau}{4}$  to  $2\frac{\tau}{4}$  broad, and sell for from 6 to 20 Vir'-Raya Fanams, or from 2s. 113 d. to 9s. 11d.

Romála, or large handkerchiefs for tying round the head. They are of white cotton, measure from two to six cubits square, and sell for from  $1\frac{1}{2}$  to 10 Vir'-Ráya Tanams each, or from  $8\frac{3}{4}d$ . to 4s. 11 d.

Parcula is a coarse plain cloth, from 20 to 22 cubits long, and 21 broad, which sells for from 10 to 20 Fanams, or from 4s. 111d. to 9s. 11d.

Stamp duty.

A new stamp duty, of  $\frac{3}{4} + \frac{1}{8}$  of a Vir'-Ráya Fanam, or of about  $5\frac{\pi}{4}d$ ., has been laid on every two pieces of fine cloth; and of  $\frac{3+\frac{2}{3}}{8}$ of a Vir'-Ráya Fanam, or about 23 d. on every two pieces of coarse cloth. The weavers in consequence have given up work, and gone in a body to the collector, to represent their case. The tax is laid

on in place of a duty, of four or five Fanams a year, that was for- CHAPICR merly levied on every loom: by the weavers it is considered as heavier.

Oct. 21.

The weavers called here Jadar are the same with those who in Jadar, a cast the country above the Ghats are called Telingu Dévangas, and intermarry with those settled in Karnáta. They still retain the Teling a language. The greater part of those here wear the Linga. Some of them, however, are followers of the Bráhmans, and worship Vishnu; but this difference in religious opinion produces no separation of cast, and the two parties can eat together and intermarry. Those who wear the Linga have a Guru, called Seranga Dévaru, whose Matam is at Cumbu Conu, in Tanjore. Once in four or five years this Guru sends his agents to receive a small contribution. When he comes in person, he bestows Upadésa. Under the Guru are village Jangamas, who are married men holding their office by hereditary right, and subsisting upon charity, which they receive at all feasts and ceremonies. These Jangamas, and the Bráhmans, are by the Jadar considered as being equally portions of Iswara. The Panchanga, or village astrologer, reads Mantrams at their marriages, births, and fasts in commemoration of their deceased parents, both monthly and annual. The whole of the Jadar give Dhána to the Bráhmans, who inform them that their sins are thereby expiated. The hereditary chiefs of the Jadar are called Shittigar; these, with the assistance of a council, settle all disputes, and formerly used to levy weighty fines on all those who transgressed the rules of cast; but this authority has lately been curtailed. They still, however, continue to excommunicate transgressors. They are allowed to eat fowls, mutton, and the like; but ought not to drink spirituous liquors. They bury the dead, and are allowed a plurality of wives. The women continue to be marriageable after the age of puberty, and widows may take a second husband without disgrace. When a man commits adultery with another person's wife, and is discovered, he takes her to live with him as a kind of concubine,

IX. Oct. 23,

CHAPTER called here Jatybidda; but their children are looked down upon, and form a kind of bastard, or Jatybidda race. A woman, who has connection with a person of any other tribe, is severely flogged, and turned entirely out of the cast.

Stupidity of guides.

23d October .- I went seven Malabar hours' journey to Moducun-Dery, or the ferry of Moducun. This village is on the south bank of the Bhawani; but the people of Sati-mangalam were so stupid, or so malicious, as to inform us that it was on the north side; and although we had five guides from Sati-mangalam, the tents and baggage were separated. The people with the tents, having found out the true situation, went thither, while the persons conducting the baggage continued along the northern bank in search of the tents, till people were sent to recal them. Such accidents frequently occur; and the traveller, in questioning the persons brought him as guides, ought to be very particular to know, whether or not they are acquainted with the road; and he ought not only to promise them an adequate reward for their trouble, if they conduct him properly; but also to threaten them with a loss of pay, should they, either from ignorance or carelessness, mislead him. By means of a small basket covered with leather, I crossed the river at a place called Dodara pallyam, which contains fifty houses of weavers, who are all Canara Dévangas. They are quite clamorous about the new stamp duty; which, they say, will for every loom cost them twenty Fanams, in place of the five which they formerly paid.

Canara Dérangas.

In the western parts of Major Macleod's district the Canara Dévangas are very numerous; but, unlike the parent stock, they have given up the Linga, and are followers of the Sri Vaishnavam Bráhmans. Some in a similar way of thinking are settled in Arcotar, and Coleagala, places toward the southern extremity of Karnáta. In consequence of a famine, those now here migrated from Namaculla about seventy years ago. They do not intermarry with the Canara Dévangas who wear the Linga, nor with the Telinga Dévangas who follow the Sri Vaishnavam Bráhmans. They are all weavers, or cloth

Their Guru's CHAPTER merchants, and never follow any other business. office is hereditary. In his visits, which are not more frequent than once in eight or ten years, he receives the voluntary contributions Oct. 23. of his followers, performs the ceremonies called Chakrántikam and Upadésa, and distributes holy water, and consecrated Tulsi (Ocymum). These people have an hereditary Puróhita, or Vaidika Bráhman, who ought to take their Dhána, and perform for them all other ceremonies, such as marriages.

Every Bráhman is hereditarily attached to some Puróhita; but in Puróhita. Karnata few of the Sudras are considered as of sufficient consequence to be so far honoured, and the Panchánga, or astrologer, of each village performs the ceremonies of religion for every person of pure descent who happens to live in it. In the country below the Ghats, the Súdras, being more wealthy, have acquired more attention; and many of them, like these weavers, are the hereditary property of particular Bráhmans. The Puróhita has considerable authority over his dependents; and, if they be rich, receives a large share of their profits. A man, who has ten or twelve families in good circumstances, can sell his office for five hundred Pagodas; for this is an alienable property: the only restriction in the sale is, that the office must be sold to a Vaidika Bráhman of the same sect. The office may even be mortgaged; the person lending the money performing the ceremonies, and taking all the profits, until he has been repaid.

The Puróhita of the Dévangas comes to marriages, and bestows on the bridegrooms a thread like that of the Bráhmans, which they ever afterwards wear. He also takes their Dhána, and at funerals reads certain Mantrams. If these are duly performed, the soul of the deceased goes to heaven, whether he has been a good man or not; and if the proper ceremonies have been omitted, he becomes a devil, whatever his conduct in this world may have been. The profits for smaller ceremonies seldom induce the Purôhita to attend; and any Bráhman that chooses may perform them. These

Oct. 23.

CHAPIER Dévangas have hereditary chiefs, who, with the assistance of a council, settle all disputes, and expel such as are obstinate, or who transgress the rules of cast. They burn the dead. Some of them eat animal food; but none of them are allowed to drink intoxicating liquors. They never offer sacrifices to the Saktis. They are allowed to take several wives. The women are marriageable after the age of puberty; and widows may, without scandal, marry again. In this cast, no bastard race is permitted; and women who go astray, even with a Dévanga, are inevitably excommunicated. There is no punishment for the seducer.

Quarry of pot-stone.

I went from Dodara-pallyam, and about a mile from the river saw a quarry of pot-stone. It is found in very large beds or masses among the usual vertical stratu of the country, all of which near the Bhawani run east and west. The Balopum, or pot-stone, is of a better quality than that above the Ghats; and the vessels made of it are much used by the natives for cooking, as it resists the fire, and, although very soft, is by no means easily broken. Four men find a constant employment in making these vessels, which are sent as far as Seringapatam. They are very clumsy, and not polished.

Face of the country.

The country through which I passed to-day is more rocky than that east from Sati-mangalam, but is better peopled. About one half only is waste. The only cultivation is that of dry grains. The country would look pretty if it were better wooded; but all the banks of the Bhawani are rather bare. The land here lets from five to forty Fanams the estimated Bulla. That which gives a high rent is in very small quantity, and the common rent is from ten to fifteen Fanams. By far the greater number of the people here are of Karnáta extraction. The sickness among my people continues to increase.

Oct. 24. Dan' Nayakana Cotay.

24th October.—I went five Malabar hours' journey to Dan' Nayakana Cotay, a fort situated on the north side of the Bhawání, a little above the junction of the Máyár. It is said to contain only about fifty houses, but it is large. In the suburb there are said to be

kana Cotay.

Both statements seem to me to under-rate the popu- CHAPTER 107 houses. lation.

The fort is said to have been built by Dána, a Náyaka, or Polygar Oct. 24. dependent on Madura. The name signifies the fortress of Dána the Dan Naya-Náyaka, or chief. His descendents were deprived of it by Bal' Rája, another dependent on the princes of Madura. From him, or at least from a descendant of the same name, it was taken by the  $R\acute{a}ja$ of Mysore; and, from its having been long dependent on that family, by far the greater part of its inhabitants speak the language of Karnáta.

About two months ago thirty or forty Nairs from Wynaad, or from Nellala, as it is here called, persuaded the chief of one of the hill villages, subject to the Company, to join them with sixty or seventy men. This united force came down to the low country, and plundered three villages. A hundred Candashara, supported by a few Sepoys, were sent out; and after an engagement, in which nobody was killed, took the chief and seven men prisoners. Of these three were Nairs. About ten years ago these banditti made some disturbance among the hill villages, but never before ventured down into the low country.

The country through which I passed is rather rough, but con- Face of the tains much good land. It is almost entirely waste, which is attri- country. buted to the frequent marches made through it by Tippoo's troops, on their way between Seringapatam and Coimbetore. The only cultivation at present is that of dry grains; but formerly, three Malabar hours' journey above the fort, there was a dam which by a canal on the north side of the river, sent off water sufficient to supply five hundred Candacas of land, each containing one hundred Seers. This dam was built about a hundred years ago by a person named Linguia. In the following year it was swept away by a flood, and has ever since been neglected. Major Macleod was repairing it, when the rainy season commenced, and put a stop to the work.

CHAPTER IX.
Oct. 24.

Forests.

The forests on the Ghats here contain the following trees:

Bamboos,

Which are small, but very strong.

Carachu. Hardwickia Roxb: MSS.

Timber very hard, and black.

Biday.

This is called Sissu by the Mussulmans; but is probably a different species of Dalbergia, or Pterocarpus, from the Sissu of Hindustan proper.

Whonay. Pterocarpus Santalinus Willd:

A valuable timber tree.

Tayca, or Teak.

The only kind here is said to be different from the common Teak, and is called Cotay, Calicotay, or Cadicotay. The leaves and branches brought to me as belonging to it strongly resemble the Premna villosa Roxb: MSS.; but I suspect some mistake in this, and that the timber which was brought as a specimen was really that of the Tectona robusta.

Vaynga. Pterocarpus bilobus Herbarii Banksiani.

A good timber tree.

Sujalu. Mimosa Tuggula Buch: MSS.

Urugulu. Sweitenia Chloroxylon Roxb:

Arulay. Myrobalanus Arula Buch: MSS.

Nerulu. Myrtus Cumini.

Bagy. Mimosa speciosa Jacquini.

Wild Mango-tree, Mangifera.

Wild Jack-tree, Artocarpus.

Budugar, a rude tribe.

Honey and wax are gathered by a cast called Budugar, who inhabit the hilly country between this and the province of Malabar, and which lies south from Nelleala, or the Wynaad of Major Rennell. They live in small villages, and huts, like the Eriligaru; and not only use the Cotu-cadu cultivation already described, but have

also ploughs. The quantity of honey and wax which they procure CHAPTER is considerable, and they pay nothing for it, there being no forestrenter in this district.

25th October.—I remained at Dan' Nayakana Cotay, and took a Mountains very long and fatiguing walk to the top of the western hills, in Coimbitore order to see a Cambay, or village inhabited by Eriligaru. The love and Malabar. of the marvellous, so prevalent in India, has made it commonly reported, that these poor people go absolutely naked, sleep under trees without any covering, and possess the power of charming tigers, so as to prevent those ferocious animals from doing them any injury. My interpreter, although a very shrewd man, gravely related that the Eriligaru women, when they go into the woods to collect roots, entrust their children to the care of a tiger.

On the hills the Eriligaru have small villages. That which I visited contained seven or eight huts, with some pens for their goats; the whole built round a square, in which they burn a fire all night to keep away the tigers. The huts were very small, but tolerably neat, and constructed of Bamboos interwoven like basketwork, and plastered on the inside with clay. These people have abundance of poultry, a few goats, and in some villages a few cows, which are only used for giving milk, as the Eriligaru never use the plough. They possess the art of taking wild-fowl in nets, which adds to their stock of animal food; and sometimes they kill the tigers in spring traps, loaded with stones, and baited with a kid. Near their villages they have large gardens of plantain and lime trees, and they cultivate the neighbouring ground after the Cotucadu fashion, changing the fields every year. One of the articles raised by this means is a new species of Amaranthus, the seed of which they grind to flour, and use as a farinaceous substance. I have sent it to Dr. Roxburgh, under the name of Amaranthus fariniferus. Besides cultivating their gardens and fields, the Eriligaru gather wild Yams (Dioscoreae), and cut timber and Bamboos for the people of the low country. Both men and women take an

Oct. 25.

Oct. 25.

CHAPTER equal share of the labour in cultivating their fields. They have the advantage of a tolerably good soil, and a part of two rainy monsoons; vet, although they have fixed abodes, and of course gardens, they are greatly inferior to the subjects of the Pomang-gri. and other rude tribes, who inhabit the hilly parts of Chittagong. Their huts are much poorer, and their persons are miserable. Both men and women are clothed with dirty cotton stuffs, but in much smaller pieces than those used by the other inhabitants. They speak a bad or old dialect of the Karnáta language, and must be therefore of a different race from the Eriligaru that I saw at Rama-giri, who spoke a dialect of the Tamul.

Noble prospect.

Although the atmosphere was rather hazy, I had from the hills a noble view of the whole course of the Bhawani, and of the country called Chéra as far as Sanch-durga, and other remote hills. Near the village I was refreshed by the cool water of a fine perennial spring, which in India is a great rarity.

Appearance. of the country.

26th October.—I went seven and a half Malabar hours' journey to Sirumugá, on the east side of the Bhawání, which is here a fine clear stream coming from the south. Cultivation occupies a very small proportion of what has formerly been ploughed, and is confined chiefly to the banks of the river, where the soil is best. The higher grounds consist of a poor soil full of stones; and many of the fields, to judge from the size of the trees that have sprung up in them, seem to have been long deserted. Sirumugá is a poor village, with about twenty houses; but has some shops, which are not very common in this province. In the Sultan's reign it was the residence of an Amildar dependent on the Asoph of Coimbetore, and contains the ruins of many huts. The people complain much of the scarcity of rain; and the dryness of the fields, and want of pasture, show their complaints to be well founded. Fifteen of my people are now ill with fevers.

Appearance of the country.

27th October.—I went a long stage called seven and a half Malabar hours' journey, and halted at Gulur, a village without a shop. By the way I passed Bellady, a mud fort which has a suburb at some CHAPTER distance. Two small streams cross the road toward the east; but it is said, that having united they turn round, and at Sirumugá join Oct. 27. the Bhawani by a channel, which I did not observe. A small tank has been formed near these streams, and receives a supply of water from them, so as to enable the people to cultivate a little rice. The soil of the country through which I passed to-day is very poor, and there is scarcely any of it cultivated.

There has been rain twice only this season, and none for the last Irregular fifteen days, so that the country is quite parched; and it is said, nature rains. that had there been more rain, the cultivation would have been more extensive. The rains seem here to be very partial. They have been plentiful all the way up the Bhawani, except at Sirumuga; and at Nellaturu, near its source, they are said to have been abundant. Most of the people here speak the Tamul language, a few use the Telinga, but that of Karnáta does not extend so far from the Ghats.

28th October.—I went eight Malabar hours' journey to Coimbe- Oct. 28. tore. The country is much freer of rocks and stones than that Face of the country. through which I have passed for some days, and the soil is in general good. The waste fields do not appear to amount to more than a half of all that is arable. There are few hedges, and the country is remarkably bare of trees. An avenue of a species of Ficus has been planted all the way from Dan' Nayakana to Coimbetore, but it is not thriving; and, except these trees, the country is as bare as that in the vicinity of Seringapatam.

The hereditary chief of Coimbetore, as we call it, is of the Vaylalar History of tribe. Formerly his ancestors dwelt in a village at the foot of the Coumbetore. hills, the site of the town being then a forest, in which there were four or five huts of a rude tribe called Malashir, and a temple of their goodess Conima, which still remains. The head man of these people was called Coia, and the name of the village Coiampuddi.

Vol. II. K k Oct. 28.

CHAPTER The ancestor of the present chief, having obtained the consent of the Malashir, came to their village, and built a fort. Soon after all these people died, and their goddess appeared in a dream to the Vaylalar chief, and commanded him to enlarge her temple, and appoint a priest (Pujári), promising him a great increase of power. and desiring him to assume the name of Cotegara Calippa, and to change that of the place to Coiamuturu. The present chief, who gives me this information, says, that he is the twentieth in descent from the first founder of the town. The family originally paid tribute to the Rájás of Madura. The country was conquered by the Mysore family about one hundred and fifty years ago, and the fort was then enlarged. For some time before and after the accession of Hyder, it was governed by a person named Madana, who enjoyed his office forty years, and was a Lingabunt (one who wears the Linga). He built a house here, which by the natives is called a palace, and is considered as an immense work. It certainly is abundantly large; but it is a clumsy, inconvenient pile of mud; and at present serves as a barrack for the officer commanding a regiment of cavalry, who is very indifferently lodged. In the government of Madana the place was very flourishing. much by the subsequent wars; and about eight years ago the fort was destroyed by the late Sultan. Since it fell into the hands of the English, and especially since it became the quarters of a regiment of cavalry, the town has recovered considerably; and it now contains two thousand houses, which is about 3 of what it contained under Hyder's government. It has a tolerable mosque, built by Tippoo, who sometimes resided in the palace; but it has no large temple. Here I was most kindly received by the officers of the regiment, as indeed I was almost every where during my journey; for English hospitality is in no part of the world more eminently distinguished, than among the officers serving under the government of Madras.

29th and 30th October.—I remained at Coimbetore, taking an ac- CHAPTER count of the vicinity; and on the morning of the 30th I visited a celebrated temple at Peruru, which is two miles from Coimbetore. Oct. 29, 30. It is dedicated to Iswara, and called Mail (high) Chitumbra, in Temple called Mail order to distinguish it from another Chitumbra, that is near Pon-Chitumbra. dichery. The idol is said to have placed itself here many ages ago; but it is only three thousand years since the temple was erected over it by a Rája of Madura. It has four Raths, or chariots, and a very fine tank entirely lined with cut stone. The building is highly ornamented after the Hindu fashion; but the whole, as usual, is utterly destitute of elegance, and the figures are not only extremely rude, but some of them are indecent. The stone of which it is built is very fine. Some of the pillars intended for it are lying near, and are said never to have been erected; the work having been left incomplete, owing to the death of the Rája by whom it was undertaken. The freshness of the stones by no means corresponds with the era given by the Bráhmans for the work. The Persecution Bráhmans in the time of Hyder had very large endowments in of the idolaters by Tiplands; but these were entirely reassumed by Tippoo, who also plun- poo. dered the temple of its gold and jewels. He was obliged, however, to respect it more than many others in his dominions; as, when he issued a general order for the destruction of all idolatrous buildings, he excepted only this, and the temples of Seringapatam and Mailcotay. This order was never enforced, and few of the temples were injured, except those which were demolished by the Sultan in person, who delighted in this work of zeal. This temple is in the district of Mr. Hurdis, who gives for its support an allowance sufficient for keeping up a decent worship, but very inadequate to quiet the clamours of the Brahmans. Even in the reign of the Sultan an allowance was clandestinely given; so that the Púja, or worship, never was entirely stopped, as happened in many less celebrated places.

CHAPTER IX. Oct. 29, 30.

Saline earth.

In the neighbourhood of *Peruru*, both culinary salt and saltpetre are procured by lixiviating the soil.

At Coimbetore the new weights and measures introduced by Major Macleod are coming fast into use; but still the cultivators in general reckon every thing about their farms by the old standards, which are as follow:

## Weights.

Weights.

177 grains =1 Dudu.

1416 grains, or \$ Dudus = 1 Polam.

14160 grains, or 10 Polams=1 Seer=2, \(\frac{0.17}{1000}\) lbs.

40 Seers = 1 Maund= $80\frac{6}{100}$  lbs.

## Measure for Liquids and Grain.

Dry and liquid measures. 84 Dudus weight of grain make one Puddy, which is therefore equal to the Sultany Seer.

4 Puddies=1 Bulla.

30 Bullas = 1 Mau Bushels  $4, \frac{165}{1000}$ 

The Mau of the Tamuls is called Salagú in the Telinga language; Candaca in that of Karnáta, and Candy by the Mussulmans.

## Land Measure for watered ground.

Land measure, and quantity of seed. The pole is 24 feet in length. A square of 16 poles by 15 makes a Mau, or Candaca-land, which requires 3 Maus of seed in the transplanted cultivation, and sows two Maus of sprouted seed. It is nearly equal to  $3\frac{173}{1000}$  acres. The farmers here therefore sow  $3,\frac{92}{100}$  bushels on the acre; but at Nala Ráyana Pallyam they sow only at the rate of  $1,\frac{6}{16}$  of a bushel. Until I came here, I suspected that at the last mentioned place they had stated their Candaca-land to be less extensive than it actually is; and I was confirmed in this opinion by what was said at Satimangalam; but I am now inclined to

believe in the accounts given me by the people of Nala Ráyana CHAPTER Pallyam, and in the great fertility of their rice lands. Oct. 29, 30.

## Measure for high Lands.

The Mar is a fathom made by passing the rope round the shoulders, and bringing the hands forward, and is equal to six feet nine inches. 64 Mars square is one Bulla, or Vullam, as it is pronounced here. This is therefore equal to  $4\frac{284}{1000}$  acres.

Once a month the Tahsildar assembles the money-changers, and Money. by their advice establishes a Niruc Náma, or rate of exchange. In this, occasional alterations are made, if complaints are preferred by these persons, of an increased or diminished demand for any particular coin.

In this neighbourhood there is much rice ground watered by Wateredmeans of reservoirs, that are filled by canals drawn from the Noyel river. They produce only one crop in the year, which begins to be cultivated from about the 10th of June to the 10th of August. The cultivation that has always been most prevalent, is by transplanting, although it is reckoned by far the most troublesome. I have already stated the quantity of seed, which is at the rate of almost four bushels an acre. The produce of a Mau-land, of good soil, when there is plenty of water, is thirty-five Maus, or Candacas; and, when the water is scanty, twenty-five Candacas. The former is at the rate of forty-six bushels, and the latter at that of 32 \* bushels, an acre. One plough, wrought by a man and two oxen, ought to cultivate a Mau of rice land, or 3 173 acres; and additional labourers must be hired at planting and weeding seasons. At this place very little sugar-cane is raised.

Near the town the principal articles cultivated in dry-field are Dry-field. Cambu, Sholum (Holci spicatus et sorghum), and cotton. On the black mould, the farmers sow alternately *Upum* cotton one year, and in the other any of the following grains; namely, Sholum, Cambu, Tenay (Panicum italicum), and Cadalay (Cicer arietinum).

CHAPTER crops are never taken in the same year. The manner of cultivation is the same with that at Bhawani-kudal.

Oct. 29, 30. Manure.

It must be observed, that in all this part of the country the farmers have no dunghills; they manure their rice-lands with leaves, and their dry-field by folding cattle on it, before the ploughing commences; for this purpose sheep or goats are reckoned best, and are kept by every farmer.

Produce of dry-field.

The following is the statement given by the cultivators, as the produce of their fields in a good crop, from one Vullam:

Upum cotton 75 Cucha Maunds, or 425 lb. an acre.

Sholum -20 Mau, or - - 19½ bushels an acre-

10 ditto - - - 9\frac{1}{2} ditto. Cambu -

20 ditto - - -  $19\frac{1}{2}$  ditto.

Cadalay - 7 ditto - - -  $6\frac{8}{10}$  ditto.

Cotton.

Nadum cotton is cultivated in one village only of the Cambetore district. It lasts three years in the ground; but is inferior in quality to the Upum kind, and is in fact a wretched article.

Cynosurus Corocanus.

Near the hills of Coimbetore, Kevir, or Ragy, is sown on dry-field: but in every other part of the province it is only cultivated in gardens. Cattle are folded on the field, which is afterwards ploughed four or five times between the 10th of April and the 10th of June. After a good rain in any of the three following months. it is sown broad-cast and ploughed in. To destroy superfluous plants, at the end of a month furrows are drawn throughout the field, at the distance of six inches. Ten days afterwards the weeds must be removed with a hoe. It requires six months to ripen. The seed for a Vullam land is fifteen Vullams; the produce in a good crop is thirty Mau. At this rate, the acre sows 0,486 bushel, and produces 29 16 bushels.

Extent of a plough-land.

One plough, two oxen, and a man, in a proper season, can cultivate 3 Vullans, or 123 acres, of dry-field. A farmer, with four ploughs, five men, eight common oxen, and a large one or two for the machine called Capily, manages eight Vullams, or 331 acres, of dry-field, and one Vullam of garden, which is  $4\frac{1}{1000}$  acres; in all, CHAPTER 37 acres.

A considerable quantity of the ground rated as dry-field is called Oct. 29.30. here Capily Tota, or gardens watered by the Capily; and also Ve- called Capily tami Tota, or cultivated gardens. Its rent is much higher than that Tota. of the other dry-field; as it lets for from 30 to 200 Canter'-Raya Rent. Fanams a Vullam, or for from 4s.  $4\frac{1}{2}d$ . to 1l. 9s.  $1\frac{1}{2}d$ . an acre; while common dry-field lets for from five to sixty Fanams a Vullum, or for from  $8\frac{1}{4}d$ . to 8s. 9d. an acre. All kinds of soil are cultivated for gardens, and the variety in this respect occasions some difference in their value; but the depth below the surface, at which the water stands in the wells, is the chief cause of the variation in rent. In some gardens the water is within eight cubits of the surface, in others at eighteen. Some wells also contain only saline water, and this diminishes greatly the value of the land which they irrigate. The best soil for this purpose is called Krishna bumi, and is a black mould, that readily dissolves into mud when watered. The articles cultivated in these gardens are tobacco, Sholum, (Holcus sorghum), Kevir (Cynosurus corocanus), Cambu (Holcus spicatus), wheat, capsicum, onions, and other kitchen stuffs.

Tobacco preceded by Kevir, and followed by Sholum, is by far Rotation. the most important rotation.

The Kevir raised in these gardens is the same with the Nat' Ragy Cynosurus of Mysore. Between the 11th of April and the 12th of May cattle are folded on the ground, which is then ploughed four times, sprinkled with ashes, divided into square plots for confining the water, and then sowed. The plots are smoothed with the hand, and immediately watered. On the third day, and on every fifth day afterwards, for a month, the watering is repeated; and then the seedlings, which have been raised very thick, must be transplanted. The ground for this purpose is prepared exactly like that for the seed, in the interval between the sowing of this, and the seedlings being fit for transplantation. By watering the soil is then

CHAPTER converted into mud, and the young plants are set at proper distances. On the third day they get water, which afterwards is given Oct. 29, 30. every sixth day. If the soil be good, no weeding is necessary; but in bad soils grass springs up, and, thirty days after the planting, must be removed by a small hoe. The Kevir, after being transplanted, requires four months to ripen; and a Vullam-land, in a good crop, produces thirty Maus, which is at the rate of 29 100 bushels an acre.

Tobacco.

For raising the tobacco seedlings, a small plot of ground must be hoed between the 14th of August and the 14th of September, and formed into small squares for watering. The seed is sown, and covered with the hand. The plot is then watered, and, to keep off the sun, is covered with bushes. For the first month it must be watered every other day. On the tenth and twentieth days sow some more seed on the same plot, by which means a succession of seedlings is procured. After the first month water is only given every fifth day. In the end of August and beginning of September the field into which the seedlings are to be transplanted must be dunged, and then ploughed; and, if the cultivator has cattle, he folds them on the ploughed ground. He then ploughs four or five times, and takes out all the weeds. From the middle of September to the middle of October the ground is divided into small squares; the squares are watered, until the soil becomes mud; and at three o'clock the plants of the first sowing are taken up, and transplanted immediately at a cubit's distance. The whole seedlings of the first sowing must be removed in two or three days about the end of September. About ten days afterwards, transplant the seedlings of the second sowing, and ten days afterward those of the third. On the third day after transplanting, give them water, and repeat this every fifth or sixth day, until they are fit for cutting. At the end of a month the field must be hoed. A month afterwards the plants have grown high, and their tops must be pinched off, so as to leave only a cubit of each. Once a week, for three times, the young

CHAPTER IX.

branches which shoot out must be pinched off. When four months old the tobacco is fit for cutting. In order to render the leaves sweet, the field must then be watered, and the plants are cut down Oct. 29, 30. close by the ground, and left on the field until next morning, when they are tied by the root-end to a rope, and hung up all round the hedges. If it be clear weather, the leaves dry in ten days; but when the sun is obscured by clouds fifteen are required. When dry, the tobacco is placed in a heap under a roof, is covered with bushes, and pressed with stones for five days. The leaves are then removed from the stems, and tied up in bunches, which are again heaped up, and pressed for four days. After this they are made up into bundles, each containing some small and some large leaves; and, when fully cured, weighing about twelve Polams, or nearly  $2\frac{427}{1000}$  lbs. These are heaped up again, and pressed for twice five days, having at the end of the fifth day been opened out, and new heaped. The tobacco is then ready for sale. A good crop, from a Vullam-land, is one thousand bundles, or  $566\frac{1}{2}$  lbs. from an acre. During the busiest part of this cultivation, eight oxen and ten men are required daily for one Vullam-land.

Immediately after cutting the tobacco, in the month commencing Holcus about the 10th of January, plough three times; and, after some days rest, plough again. Sow the Sholum seed broad-cast, and cover it by a fifth ploughing. With the hoe called *Mamutty* divide the field into squares for watering, each side being about four cubits. Fill the squares with water; repeat this on the fifth day, and ever afterwards every eighth day. At the end of a month hoe again with the Mamutty. In four months the Sholum ripens. A Vullam-land requires eight Vullams seed, and in a good crop produces thirty Maus: an acre, therefore, for seed requires 0,2551 bushel, and produces 29 16 bushels.

Part of the watered ground is cultivated for gardens, which are Gardens on watered land. either of Betel-leaf or of palms.

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IX.
Oct. 29, 30.
Betel-leaf,
Piper Betle.

The Betel-leaf gardens are cultivated by a particular class of men. called Codi-cal-carun; that is, Betel-trench-makers. For each plantation these rent a Mau of land, and pay for it three hundred Fanams a year, which is at the rate of 3l. 14s.  $3\frac{1}{5}d$ . an acre. This must be of a very rich soil, either black, or black mixed with red. A new garden is thus formed. From the 13th of July until the 13th of August trenches are dug with the Mamutty one cubit wide, one cubit deep, and twenty-eight cubits long, at the distance of four cubits from each other. In the beds formed between these trenches are sown two rows of the seeds of the Agutty (Aschynomone grandiflora), and of the Guilandina Moringa. Every other day the trenches are filled with water, and from these the beds are sprinkled. This having been continued for four months, slips of the Betel-vine are planted in two rows. The slips are a cubit long, and one end of each is placed in a hole, distant one cubit from the others of the same row. At the first commencement of the garden it is surrounded by a hedge of Calli (Euphorbium Tirucalli). The channels, ever after planting the vines, must be kept constantly full of water, and in the dry season the beds must from thence be sprinkled once every other day. When the vines have been planted three months, they must be tied up to the trees, and the garden must be cleared of weeds with a knife: a little dung is then given to each plant. From the 12th of March to the 10th of April, or three months after the first weeding, the weeds are again removed, and the plants are manured. At the same time the opposite trees, of the two rows in each bed, are tied together in the form of the cross of St. Andrew, and the vines are tied up afresh. From January the 11th to February the 9th of the second year, the vines are untied; two cubits next the root are buried in the earth, and then they are tied up again. Whenever weeds shoot up, they must be removed. In the month commencing with the 12th of May of the second year, the garden begins to produce leaves fit for use; and continues to do

so for one year and a half, when it is ploughed up for rice. A gar- CHAPTER den of one Mau, equal to three acres and a half, requires the constant labour of thirty-two men.

Oct. 29, 30.

The palm gardens contain the Betel and coco-nut palms, and the Palm garplantain tree, and are cultivated by the richer farmers. The most catechu, Cocos favourable situation is near the side of a river, or torrent, where nucifera, and

the soil contains a good deal of sand, and where water may be found by digging to the depth of two cubits. Limestone in the soil is not reckoned of any advantage. A new plantation is thus formed. In the first month of the year, commencing on the 11th of April, the ground is ploughed twice, and manured either with dung, or by folding cattle on it. In the next month plough again twice, and then manure the field as before. Between the 14th of September and the 14th of October plough once, and at the distance of four cubits from each other dig trenches, one cubit broad, and about six inches deep, crossing each other at right angles through the whole extent of the garden. Near every channel, or trench, is set a row of the young shoots of the plantain tree, at the distance of four cubits from each other. Parallel to every fourth row of these, is formed a row of pits, distant from each other sixteen cubits, and a foot deep. In each of these is placed a coco-nut, with the eye up, and it is covered with four inches of fine mould. Once in six days the channels are then filled with water. Between the 13th of December and the 10th of January small pits are made, at the distance of one cubit, or of one cubit and a half from each other, and in rows on the opposite side of the channels from where the plantains were set. In each of these holes is placed a Betel-nut. In the following month, the whole garden must be hoed, and the channels formed again. Once in ten or fifteen days, when there is no rain, these must ever afterwards be filled with water. The garden must be hoed twice every year; once between the 11th of January and the 10th of February, and again between the 12th of June and the 12th of July. It is surrounded by hedges containing limes, Jacks

Oct. 29, 30.

CHAPTER (Artocarpus), oranges, pomegranates, &c. secured by the Euphorbium Tirucalli. In eighteen months the plantains yield fruit, and are never removed from the garden. The Arecas are thinned where they happen to grow too close; the proper distance for each tree being three cubits square. In eight years they begin to bear; but do not produce a full crop until they are twelve years old. In the twenty-second year new seed is put in, to supply the place of the trees that die. At twelve years of age the coco-nut palm begins to produce fruit; and, when they are fifty years old, seed is put in to supply the loss of the old ones. They are all used in the country, and sold in the shell; for the people here prepare no Copra, or dried kernel. The husks of the green nuts, that have been used for drinking, are thrown into water to soak. Once in five or six months the people called Parriar come and prepare the Coir (from which ropes are made) from what has been sufficiently soaked, giving one half to the farmer, and keeping the other half for their trouble. The husks of nuts that are allowed to ripen the kernel are of no use. Some of the Areca palms produce between the 12th of May and the 11th of June; many more of them produce in the month following, and a few produce between the 14th of November and the 12th of December; but no one tree produces two crops in the same year. The nuts, as they come from the tree, are sold by the farmers to people who make a separate profession of boiling them. The rent of a Mau of garden cultivated with palms varies from forty to two hundred and thirty Fanams, which amounts to from 7s.  $10\frac{1}{2}d$ . to 2l. 5s.  $2\frac{3}{4}d$ . an acre. Until twelve years old it pays forty Fanams only, as a rent for the plantains. Two men take care of a garden of one Mau; but at each hoeing thirty or forty labourers must be hired. The proprietor cannot or will not give me any estimate of the produce. The Betel-nut is reckoned inferior to that of Malabar.

Iron.

Iron is smelted from black sand at Topum Betta, about five miles north from Coimbetore; and at two places, at no great distance, in the district under Mr. Hurdis. This information I did not receive CHAPTER in time to be enabled to examine the process.

The principal merchants at Coimbetore are Comatties, or Vaisyas. Oct. 29, 30. They say, that the chief trade is carried on with the province of Commerce. Malabar. The places that trade with this are, Pali-ghat, Calicut, Cochi, Wanarcot, Tellichery, and Angada-puram. The exports from hence are tobacco; cotton wool, thread, and cloth; sugar, and Jagory; capsicum, onions, Betel-leaf, and Jira and Danya, two of the carminative seeds. The imports from Malabar are Betel-nut, black pepper, turmeric, Sunt, or dried ginger, nutmegs, mace, cloves, and other spices, saffron, camphor, benjamin, assafætida, Munjeetroot, Cut, or terra japonica, Piphul, or long pepper, raisins, dates; China sugar-candy, Bengal sugar, sulphur, red arsenic, Hurtal, or yellow orpiment, lead, copper, false gilded paper, paper, raw-silk, taffetas, silk cloths called Kingcobs, and Gulbudden, woollen cloths, cotton cloths called Mucmulls; Attalas; Nankeens and chintzes; towels, and shawls, with many smaller articles. Coimbetore has no direct trade with Travancore, nor with Catangady, as the Wynaad is here called. From the country above the Ghats are brought some Burrahunpour goods; and there are sent up tobacco, Ghee, or boiled butter, and cotton cloths. From the places in the eastern country below the Ghats, such as Saliem, Tanjore, and Negapatam, there come silk, and cloths. The returns are made in the Betel-nut and pepper of Malabar.

There are many weavers in the neighbourhood of Coimbetore; Manufacthose in the town are Jadar, and Coicular; those in the villages are tures. Bestas, Canara Dévangas, and Parriar. In the whole district there are four hundred and fifty-nine looms.

The Jadar make the finest cloths. They are of a very thin tex- Kinds and ture, like those called book muslin. Of these the following kinds prices of are wrought for common sale:

wrought near Coimbetore.

CHAPTER IX. Oct. 29, 30.

	Cubits long.	Cubits broad,	Highest price, Vir'-Raya Fanams,	Lowest price. Vir'-Raja Fanams.	Highest price. Shillings and pence.		Lowest price. Shillings and pence,	
Cloths of an open texture made by the Jadar.								
Shillas, plain white muslin	24 36	2 <del>3</del>	22 32	12	10	11 <sup>3</sup> 10 <sup>1</sup>	5 8	11 <sup>1</sup> / <sub>2</sub> 11 <sup>1</sup> / <sub>4</sub>
Ditto	24	23 21 21	16	131	7	114	6	81
Ditto	21	3	30	25	14	10출	12	5
Ditto	20	2	8	7	3	$11\frac{1}{2}$	3	53
figures wrought in the loom with silk thread	20	2 <sup>1</sup> / <sub>4</sub>	56	26	27	Q. <del>3</del>	12	11
Ditto without the gold or figures	20	21	24			11		111
Dotras, being also white muslin with coloured silk borders	24	23	40	15	19	101	7	5 <sub>2</sub>
Dupatas. Plain white muslin worn round the shoulders like a shawl	8	23	6	3	2	11클	1	5 <sup>3</sup>
Sada Shal. Same cloth with gold and silk borders								
in shawl patterns	8	234334Hi4 24	64		31	9,	15	101
Pagu, or turbans, white with gold ends  Shirays, dark blue with yellow or red silk borders	30 20	4 01	16 40	<b>4</b> 16	7	$11_{4}^{1}$ $10_{4}^{1}$	1	11 <sup>3</sup> 11 <sup>1</sup>
Cambawutty Shirays, or white muslin checquered	20	24	40	10	19	104	1	114
with coarser thread and red cotton borders -	20	21	32	20	15	101	9	11
			,					
Cloths of a close texture.								
Paracala, like the Humums of Bengal	20	21	24	10	11	11	4	111
Dotras, of the same fabric, with red cotton borders	5	2 <sup>1</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>4</sub>	3	2	1	$5\frac{3}{4}$	0	113
Shirays of various mixed colours, dark and light	- ^							
blues, and red, very coarse Ditto striped blue and white with red borders -	19 16	2 <del>1</del> 2	22	12	10	113	5	111
Ditto white with red and yellow borders	16	2		9	3	$   \begin{array}{r}     113 \\     53 \\     \hline     5\frac{3}{4}   \end{array} $		
					-	-		
Cloths made by the Coicular and country weavers.								
Cadi. Plain cloth like Bengal Baftas	24	21	11	<b>-</b> -	5	5 3		
Ditto	20	21 21 24	$7\frac{1}{2}$		3	$8\frac{1}{2}$ $5\frac{3}{4}$		
Ditto	17	2	5	<b>-</b> -	2	$\frac{5_4^3}{0.3}$		
Shirays with red borders Ditto with blue ends	16 16	13 13	5 <sup>1</sup> / <sub>2</sub>		2 1	$8\frac{3}{4}$ $11\frac{3}{4}$		
Divid Hitt bido ollas		-4	-1		•	4		

Of the cloths made by the *Jadar*, the plain ones appear to my Bengal servants to be cheap, the figured ones are dear. The cloths made by the *Coicular* are very coarse, and rather dear.

The cotton growing in the country is not only sufficient for the CHAPTER consumption of the place, but is also exported in great quantities, both raw and spun, to the province of Malabar. The women of all Oct. 29, 30. the farmers and low casts are great spinners; but those of the Parriar are reckoned to make the best thread. The women of the weavers are chiefly employed in warping the webs. All the silk and gold thread, with the best of the red cotton yarn, is imported ready prepared from Saliem, Tanjore, Tranquebar, and other towns on the sea-coast.

Cotton.

The weavers dye cotton thread red with the Muddi, or Morinda; Dyeing. but it is a perishable colour. Those of this place are reckoned to excel in dying black, as they call it, but in fact a dark blue. They use indifferently the indigos prepared from the Nil, or Indigofera tinctoria, and from the Pala, or Nerium tinctorium Roxb: MSS. This kind of indigo is called Palac; and I was here told, that it was prepared at Palachy; but on going to that place, I found that this information was not true. Indeed, in that vicinity I did not see one of the trees. The colour given with both kinds of indigo is exactly the same, and in the same vat they are frequently intermixed. The account of the process given by the weavers is as follows.

Take ten Polam  $(2\frac{0.2.2}{1.000}$  lb.) of Palac, pound it small, and soak it Palac indigo. three days in \(\frac{1}{4}\) Puddy of water (0,2433 quart). Saline water is not preferred here, as is the case at Bangalore. After having been soaked, the Palac is rubbed in a mortar, until it is reduced to a mud. Then take one Puddy (0,2777 Winchester gallon) of the seed of Tagashay (Cassia Tora), and boil it in one and a half Puddy  $(1\frac{45}{100})$  ale quart) of water, until it be soft. Pour this decoction upon the Palac that has been ground to mud, and for three days cover the vessel with a pan, until the mixture becomes sour. Then, by filtering water through the ashes of the Euphorbium Tirucalli (Calli Chumbul), make a strong solution of the carbonate of potash. Of this every morning and evening add  $\frac{1}{4}$  Puddy (0,2433 quart) to the fermented vat, until the colour be dissolved, which will require

CHAPTER eight or ten days. Then having added some quick-lime to the solution of potash, and having thus drawn from it the carbonic acid, Oct. 29, 30. take of the caustic ley  $\frac{1}{4}$  Puddy, and morning and evening for two or three days add this to the vat, which will then be fit for dyeing. The thread, as it comes from the spinners, is dipt into a solution of carbonate of potash, and having been wrung is dyed in the vat. After the colour has been extracted from this, it is filled up again with caustic ley, and next day again produces some colour. This is repeated seven or eight times, until the colouring particles are quite exhausted. Two dips in a fresh vat give a full colour; but as the vat is exhausted, the number of immersions must be increased.

Exportation of cloths.

Of the cloth not consumed in the country about one half is sent to the province of Malabar, and the remainder to Seringapatam. The commercial resident at Saliem twice made advances to the weavers of Coimbetore for the coarse cloth called Paracalas, on terms similar to those which I have already mentioned. The weavers are very anxious to have a continuation of this employment. None of their cloth was rejected; but some, that they had rated as of the first quality, the resident reduced to the second, and the weavers were contented to receive this price.

Advances.

Each of the different classes of weavers here forming, as it were, a kind of family, the richer assist the poor; so that those who work for country use are either able to make the cloth on their own account, or at least are not obliged to take advances from a native merchant for more than one piece at a time. Those who once get into the debt of a native merchant are ever afterwards little better than slaves, and must work for him at a very low rate.

Duties on manufactures.

The weavers here formerly naid a certain duty on every loom; which, in order to encourage large dealers, was lower on those who kept many looms, than on those who had few. Eight Fanams (3s.  $11\frac{1}{2}d$ .) was paid annually for a single loom, and this revenue was collected by the Sunca, or custom-house. This duty has been

taken off, together with all transit duties on cloth; and in place of CHAPTER these, a stamp duty has been imposed. The weavers say, that this will be harder on them than the former duties were, and they have Oct. 29, 30. requested the collector to restore the former mode of assessment, but without success.

None of the weavers here cultivate the land. Some of them, it is true, rent lands; but these are cultivated by servants of other tribes.

The Natami Carun, or hereditary chief, of the Coicular weavers Customs of here, informs me, that in this tribe there are the following divisions; the Coicular. namely, Siritali, Tataynatar, and Conga, to which last he belongs. In other districts other divisions are known; at Sati-mangulam, for instance, they are divided into Chóla, Culcundo, Murdea, and Conga. There the hereditary chief is a Murdea. Those divisions do not intermarry, but can eat in common. As the Coicular never marry persons of the same family in the male line with themselves, their marriages are confined to a few families, whose descents are known to each other. The men may marry several wives, and the women continue after the age of puberty to be marriageable. Except among the Siritali, a widow cannot marry again. They do not allow of that kind of inferior marriage, called Cutiga above the Ghats, and Wopati or Jaty-bidda in this country. A woman, who has any criminal connection with a strange man, is excommunicated; but when a married woman is seduced by a Coicular, both seducer and cuckold pay a fine of two Fanams, or almost a shilling, and the matter is settled in an amicable manner by the hereditary chief. The Coicular are allowed to eat animal food, and to drink intoxicating liquors. Many of them read legendary tales, and can keep accompts. Some of them bury, and some of them burn the dead. On both occasions, proper Mantrams must be read by a Brúhman; otherwise the departed soul inevitably becomes a Muni, or a low kind of devil; as is also the case with the souls of all those who are

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Oct. 29, 30.

CHAPTER killed by accident, whether they may have been good or bad. the proper ceremonies have been performed, the souls of good men are received into the heaven called Coilasa; those of bad men are punished by being born again, either as men or animals. The Coicular are of Siva's side, but consider Camachuma, or Parvatí, as the proper deity of their cast. Some of the idols of this goddess are served by priests of the Coicular, others by Pundarum, and in some large temples by Bráhmans; but these never join in the bloody sacrifices that are offered by the low tribes to the idol, and retire whenever the animals are going to be killed. The Coicular offer sacrifices also to the Saktis and Munis. These last are destructive spirits of the male sex, of whom the worship is very common throughout the province of Coimbetore. The Guru of the Coicular is a Smartal Bráhman, whose office is hereditary. He gives them Upadésa, and consecrated food, water, and ashes, and receives their annual contributions. He either comes round, or his disciples visit for him, once in the year. The Panchanga, or astrologer, acts for the Coicular as Purbhita, and reads Mantrams at the annual and monthly commemoration of their deceased parents, at the building of a new house, at marriages, and at funerals. The hereditary chief punishes transgressions against the rules of cast by fine and excommunication. He is assisted by a council, and pretends also to have a jurisdiction in disputes; but in these an appeal is commonly made to the officers of government. The Coicular are weavers, writers, or accomptants, schoolmasters, and physicians; and all the dancing women, and musicians attached to them in this country, formerly belonged to this cast; but the decent part of the community have entirely given up all society with these abandoned characters.

Cuncheny, or dancing women.

These dancing women, and their musicians, thus now form a separate kind of cast; and a certain number of them are attached to every temple of any consequence. The allowances which the musicians receive for their public duty is very small; yet morning and evening they are bound to attend at the temple to perform CHAPTER before the image. They must also receive every person travelling on account of the government, meet him at some distance from the Oct. 29, 30. town, and conduct him to his quarters with music and dancing. All the handsome girls are instructed to dance and sing, and are all prostitutes, at least to the Bráhmans. In ordinary sets they are quite common; but, under the Company's government, those attached to temples of extraordinary sanctity are reserved entirely for the use of the native officers, who are all Bráhmans, and who would turn out from the set any girl that profaned herself by communication with persons of low cast, or of no cast at all, such as Christians or Mussulmans. Indeed, almost every one of these girls that is tolerably sightly is taken by some officer of revenue for his own special use, and is seldom permitted to go to the temple, except in his presence. Most of these officers have more than one wife, and the women of the Bráhmans are very beautiful; but the insipidity of their conduct, from a total want of education or accomplishment, makes the dancing women be sought after by all natives with great avidity. The Mussulman officers in particular were exceedingly attached to this kind of company, and lavished away on these women a great part of their incomes. The women very much regret their loss, as the Mussulmans paid liberally, and the Bráhmans durst not presume to hinder any girl, who chose, from amusing an Asoph, or any of his friends. The Brúhmans are not near so lavish of their money, especially where it is secured by the Company's government, but trust to their authority for obtaining the favours of the dancers. When a Mussulman called for a set, it procured from twenty to two hundred Fanams (from 12s. 6d. to 61. 4s. 9d.), according to the number and liberality of his friends who were present; for in this country it is customary for every spectator to give something. They are now seldom called upon to perform in private, except at marriages, where a set does not get

CHAPTER more than ten Fanams, or about 6s. 3d. The girls belonging to this cast, who are ugly, or who cannot learn to sing, are married by the Oct. 29, 30. musicians. The Nutua, or person who performs on two small cymbals, is the chief of the set, and not only brings up the boys to be musicians, and instructs all the good-looking girls, born in the set, to sing and dance, but will purchase handsome girls of any cast whatever that he can procure. When a dancing girl becomes old, she is turned out from the temple without any provision, and is very destitute, unless she has a handsome daughter to succeed her; but if she has, the daughters are in general extremely attentive and kind to their aged parents. To my taste, nothing can be more silly and unanimated than the dancing of the women, nor more harsh and barbarous than their music. Some Europeans however, from long habit, I suppose, have taken a liking to it, and have even been captivated by the women. Most of them that I have had an opportunity of seeing have been very ordinary in their looks, very inelegant in their dress, and very dirty in their persons: a large proportion of them have the itch, and a still larger proportion are more severely diseased.

Customs of the Panchalar.

The Panchalar are a set of artists, who (as their name imports) are of five different trades; goldsmiths, blacksmiths, coppersmiths, carpenters, and masons. By the Bráhmans they are reckoned a low kind of Súdras; but this they do not readily acknowledge to be true, and say, that they are of the Vishwa Karma cast, being descended from the five sons of that person, who lives in heaven, and is the chief artist among the Brahmá Lóka, or angels. All the Panchalar in southern India wear a thread like the Bráhmans. In the dispute about precedency, their hereditary chiefs lead the right hand side. On this account Coimbetore has been long divided into separate quarters. In its own quarter, each party may perform its ceremonies in whatever manner it pleases; but it is not allowed to go into the adversary's quarters with any procession. This keeps

the peace; and, although the killing of a jackass is known by re- CHAPTER port to the natives in this part of the country, it never has been A Panchala may follow any of the five arts that he Oct. 29, 30. pleases; but there are many divisions among them, that prevent intermarriage. No man can marry a woman of a different nation; a Telinga Panchala, for instance, could not marry a woman of this country. Again, a man cannot marry any woman of the same family with himself; and, in order to prevent mistakes, marriages are always made with families who are well known to each other. The men are allowed a plurality of wives, and the women continue to be marriageable after the age of puberty. Widows are not allowed to marry again; nor are they permitted to live with another man in the kind of concubinage called Jaty-bidda, of whom none belong to this tribe. Widows, indeed, ought to burn themselves with the dead bodies of their husbands; but, for at least a century, the practice has gone into disuse. When two persons of the cast commit adultery, they are carried before the Guru. The man is fined, and the woman is flogged; but, after she has been purified by some consecrated food, and water, her husband receives her back again. If a woman has criminal connection with a man of any other cast, she is excommunicated. Some of these people eat animal food, others do not. They are allowed to drink intoxicating liquors. They never offer sacrifices to any of the destructive spirits, either male or female. The deity peculiar to the cast is Camachuma, or Kalima, who is, they say, the same with Parvati, the wife of Siva. The priests in her temples are all Bráhmans; but in the southern parts of India no sacrifices are offered to this idol, as is done in Bengal. images of this goddess in the two countries are very differently shaped. The *Panchalas* are frequently instructed to read and write, and there is a book called Vishwa Puránam, which any of them may read. It is written in the vulgar languages. The Gurus of the Panchalas are not Bráhmans, but persons of the cast. They have

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CHAPTER four Matams, the authority of all which is equal. One Matam, situated beyond the Tunga-bhadra river, is under the government of a Sannyási, who appoints his successor from among his relations in the male line. The persons of this family who are not called upon to fill this sacred office work at the anvil as usual, and are not too proud to intermarry with ordinary families. The heads of the other three families marry, and their office is hereditary in the male line: one of them, named Parsamium, lives at Tinevelly; another, named Vepuru Vencata Achárya, lives at Andëuru; the name of the third, and his place of residence, are unknown to the people of Coimbetore. To their followers these Gurus read Muntrams and Charitra, or prayers and legends, in the Telinga language. They also bestow Upadésa, and receive the gifts called Dána and Dharma; for which purpose they once a year travel round, and receive from each person a Fanam at least.

> The Panchánga of the village acts as Puróhita for the Panchalar, and reads to them Mantrams, in an unknown language, at marriages, births, the building of a new house, and at the monthly and annual celebrations of the ceremonies for their deceased parents. He also receives the charity called Dana.

Torearu.

The Toreas, or Torearu, are a tribe of Karnáta, although many of them have been long settled in this country. They are rather a low cast, and their proper duty is the cultivation of the Betel-leaf. Many of them formerly were armed messengers, employed to collect the revenue; but, having been deprived in a great measure of this resource by the reduction made in that body of troops, or rather rabble, they have become small dealers in grain, and cutters of firewood; both of which are considered as low employments. They have hereditary chiefs called Gotugaras, or Ijyamánas, who with the advice of a council reprimand all troublesome persons, and inflict slight punishments on those who transgress the rules of cast. The Toreas may eat animal food, but are not permitted to

drink intoxicating liquors. They are not allowed to marry a second CHAPTER wife, without obtaining the consent of the first; and this is never asked for, if she has any children. The girls continue to be mar- Oct. 29, 30. riageable after the age of puberty, and widows may marry again without disgrace. The bridegroom generally gives his father-inlaw forty Fanams (11.5s.); but this is only to assist in defraying the expense of the ceremony, which is performed at the father's house, and which costs more money. In cases of adultery, the husband does not always turn his wife away, but contents himself with flogging her. A woman loses cast if she cohabits with a strange man. This cast has two deities peculiar to itself; the one a male, the other a female. The male is called Sidday Dévaru, and is usually represented by a stone placed in the Betel-leaf-garden. The eldest man of every house acts as priest for his own family, and offers up bloody sacrifices to this stone, in order to appease the wrath of the god which it represents. Once in three or four years a feast is celebrated in honour of Sidday Dévaru, in order to induce him to bestow prosperity on the cast. This is done by a contribution, and costs fifteen Pagodas (4l. 13s. 7d.). On this occasion Sidday Dévaru is represented by a pot, which is placed in a house, and has worship (Puja) performed in its honour; that is to say, flowers, and water dyed yellow with turmeric, are poured over it, and incense is burned before its throne. The female deity is named Urucate, and is represented by a stone placed in a wood. To this sacrifices and Puja are offered eight days after the great feast of Sidday Dévaru, and the goddess is solicited to bestow prosperity on her votaries. Although these are the peculiar deities of the Toreas, these poor people pray to any image that comes in their way, and use the mark of Siva. They have no Guru. The Panchánga acts as Puróhita, and reads Mantrams at marriages, and when they build a new house. His fee is a Fanam and a half  $(11\frac{1}{4}d.)$ . In cases of sickness, the Toreas frequently vow Dáséri one day in the week; that is to say, to live upon what they can procure by begging.

CHAPTER
IX.
Oct. 29, 30.
Palli.

The Palli are a very numerous cast in all the countries where the Tamul language, their native tongue, is prevalent. They pretend to be Súdras, but are looked upon as rather a low tribe. They have many subdivisions, none of which intermarry with each other; but all can eat in common. Those from whom I have my information are called Arisha Palli, and act as cultivators of fields, and of gardens watered by machinery, both as farmers and servants, and also as porters. They have hereditary chiefs, called here Ijyamána. On all public ceremonies these receive Betel first; and, with the assistance of an assembly of the people, settle disputes, when the members of their tribes are willing to refer the matter to their decision; but a reference to the officers of government is in general preferred. Some of this tribe are able to read and write accompts. They can lawfully eat animal food, and drink spirituous liquors. They are permitted to marry several women, and pay to the father of each from nine to eleven Pagodas. The father pays one third of the marriage expenses, and the bridegroom the remainder. Girls continue to be marriageable after the age of puberty; but after that period sell lower than while children. A widow may marry again without disgrace. In cases of adultery within the cast, the husband in general flogs the woman, and takes her back, giving a small fine to his relations; but sometimes he turns her away; in which case the man who seduced her keeps the woman as his wife, and pacifies his relations by a small fine. All this produces no disgrace, either to the woman or to her children. A woman loses cast by criminal communication with any man, except a Palli; a man may without disgrace indulge himself with any woman, except those belonging to the Panchama, or impure casts.

The gods peculiar to the Pallis are a male named Manar Swāmi, and Pachumma his mother. In the temples of these deities the priests are Pallis. They are represented by stone images, and, as usual in the province of Coimbetore, have placed in the yard belonging to their temple a great many figures in potter's work, which

represent horses, elephants, and Munis, or devils, who are supposed CHAPTER to be the attendants of these gods. When a person is sick, he frequently vows to place some of these images of potter's work at the Oct. 29, 30, temple of the spirit who is supposed to be the cause of his disease. None of these are ever presented to the great gods of the Bráhmans. but only to the deities peculiar to the casts of the lower tribes. No sacrifices are offered to Mannar, or Pachumma; but they are frequently presented to the attendant Munis, of whom a great many have appropriate names and characters; such as Val, Shem, Car, Vayda, Muttu, &c. They are all males. The Pall's frequently offer sacrifices to Marina, Putalina, and the other Saktis, and pray to Siva, Vishnu, or any thing which they meet, that is called a god.

The Panchánga, or astrologer of the village, acts as Puróhita for the Pallis, and reads Mantrams at their births and marriages, at the annual commemorations of their deceased parents, and at the building of a new house.

Some of the Pallis are of Siva's side, and others of Vishnu's. The former have a Guru peculiar to themselves, who is called Palli Swami, and lives at Andiuru. His office is hereditary, and he wears the Linga. He receives the charity of his followers, and gives them consecrated food, and holy water. On such as choose to wear the Linga, he bestows an Upadésa; but very few apply for this, as ever afterwards they must abstain from animal food. The Pallis who wear the mark of Vishnu have for Gurus the Sri Vaishnavam Bráhmans.

The hills west from Coimbetore are inhabited by Malasir, Mudu- Mountainous gar, Eriligaru, and Todear. These last cultivate with the plough, tween Coimand pay rent for their fields. The others cultivate after the Cotu- betore and cadu fashion, and live like those whom I saw on the hills near Dan' Náyakana Cotay. Besides plantains, they have for sale honey, and wild ginger, which is the same species with that cultivated. They pay no rent immediately to the government; but are compelled to sell their commodities to a man, who pays an annual duty for this

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CHAPTER exclusive trade. He may give what price he pleases for their commodities. Those who want timber, or Bamboos, hire the hill people to cut them.

Sickness.

31st October.—The sickness among my people had now increased so much, that the greater part of them could not proceed farther; and I was forced to employ this day in providing a fresh set of servants.